RETROSPECTIVE AND CURRENT LEVELS OF SELF-EFFICACY IN JAPANESE LEARNERS

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Abstract

Self-efficacy is the strength of expectations individuals maintain about their ability to successfully perform a behavior. As such, researchers from many fields (e.g., educational psychology, health, medicine) have employed self-efficacy to predict and describe a wide range of human functioning. However, relatively few studies in second language (L2) reading have investigated the relationship between reading self-efficacy and proficiency, and those that have tend to suffer from design flaws and/or problems with analyses. Furthermore, no studies have explored the effects that past experiences seem to have on current levels of reading self-efficacy. In order to address this lack of empirical research, this quasi-experimental study was conducted to investigate how participants' retrospective ratings of reading self-efficacy related to current levels, and how those current levels, in turn, relate to reading proficiency. The participants, all of whom were non-English majors, consisted of 322 first- and second-year Japanese university students, ages 18 to 20. Data to examine retrospective self-efficacy was collected through the sources of reading self-efficacy questionnaire and TOEIC reading scores were utilized for the reading proficiency variable. The results suggest that the retrospective ratings of self-efficacy in junior high and high school are closely related to the participants' current levels of reading self-efficacy. The results from an ANOVA also showed a statistically significant difference in reading performance between those with high reading self-efficacy and those with low reading self-efficacy. The results demonstrate how important past levels of self-efficacy can be on learners' current levels of self-efficacy; therefore providing students in the EFL classroom with achievable activities and opportunities to cultivate their self-efficacy would be indicated. Further research is necessary to determine specific ways in which teachers may help foster a stronger sense of self-efficacy in EFL learners.

Keywords: reading self-efficacy, reading proficiency, ANOVA, sources of self-efficacy

Beliefs about self-efficacy are key elements in mediating behavior leading to human competence (Pintrich, 1999; Pintrich & De Groot, 1990). Bandura (1997) purports that one's level of self-efficacy relates strongly to one's decision to initiate activities that support learning, the level of effort expended on accomplishing those activities, and how perseverant that person can be in the face of adversity. Research in second language (L2) reading has identified a relationship between reading self-efficacy, and reading motivation (e.g., Mori, 2002) and reading proficiency (e.g., Mills, Pajares, & Herron, 2007); however, some of these studies have suffered from inconsistencies between the instruments used and the self-efficacy construct. In addition, there have been no studies that investigated how past experiences have influenced learners' current levels of self-efficacy. Results from studies exploring self-efficacy differences across cultures have suggested that the role that self-efficacy plays in motivation and achievement may be different between those who live in Asian cultures and western cultures. As many questions still remain unanswered, the purpose of this study is to examine how Japanese EFL learners' past experiences impact their current levels of reading self-efficacy and how those levels relate to levels of reading proficiency. In this paper, literature related to the study will be discussed, results will be presented, and a comprehensive explanation for the results will be provided. At the end of the paper, ideas for future research, practical and academic implications, and limitations of the study are mentioned.

Social cognitive theory and self-efficacy

Bandura's social cognitive theory describes human functioning as the product of a dynamic triad of personal, behavioral and environmental influences. Bandura defines self-efficacy, the main component of Bandura's theory and the basis for this study, as the perceived competence that one feels in regard to a specific task within a specific domain. Individuals' level of self-efficacy influences "whether certain (coping) behaviors will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and aversive experiences" (Bandura, 1977, p. 191). Those who hold a low sense of self-efficacy for accomplishing a particular task within a particular domain might

avoid it, while those who have a higher sense of self-efficacy might be more apt to participate readily in the completion of the task. This perceived efficacy is the collective interpretation of four principal sources of information (Bandura, 1997): mastery experiences (learners' past performances), vicarious experiences (experiences with others' performances), verbal persuasion (persuasion-positive or negative-from significant others), and physiological states (physiological and emotional changes that alert the learner to possible failure or success). These four sources are interpretations resulting from the interplay between the environment, one's behavior, and one's mental processes. In turn, these interpretations lead to newly initiated behavior that again changes all three factors.

The role of culture in self-efficacy
Bandura (1997) claimed that there was abundant research to support the hypothesis that self-efficacy maintains a cross-cultural generalizability. However, the role that culture in the Asian context plays in self-efficacy and its predictive qualities remain largely under question. The following studies demonstrate that learners from different cultures might not be motivated by levels of self-efficacy in the same way.

Oettingen (1995) provided an in-depth review of the differences in the ways culture affects the various sources of self-efficacy belief systems. She created a dichotomy between individualistic and collectivistic societies, "collectivist cultures promote the view that people belong to in-groups that demand lasting loyalty… and in return, people receive protection from the in-group" (p. 151). Individualist societies, conversely, espouse values of protecting one's own welfare and their immediate family's interests. Individual goals are more highly regarded than those of the group.

These distinctions led to variations in her results on self-efficacy, postulating that variations in power distance have also been shown to affect self-efficacy. In settings where there is a large power differential (i.e., Japan and other Asian countries), teachers are highly respected and obeyed and expected by students to control the course of educational activities. In this sense, the generation of a sense of self-efficacy largely comes from teacher evaluation and verbal persuasion. In cultures with a small power disparity, learners rely on their own evaluations of their performance on projects to form their sense of self-efficacy (Oettingen & Zosuls, 2006).

In a later study, Salili, Chiu, and Lai (2001), investigated the self-efficacy beliefs of students in eastern and western cultures. The participants, 571 students aged 17 to 19, were comprised of high school students in Hong Kong ($N = 217$), East Asian Canadian students ($N = 66$, mostly Chinese, referred to as Chinese Canadians) and European Canadian students ($N = 288$, mostly of French or English origins). There were no Japanese students or students from other Asian countries, other than China, represented in the study. Data collection for the study was organized by requiring all participants to complete a two-part survey. The first part of the survey highlighted demographic background and measures of academic performance, while the second part focused on goal orientations and academic self-efficacy, among others. In reference to self-efficacy, the results demonstrated that students in Asian cultures generally rate their self-efficacy lower than students in non-Asian cultures do.

Self-efficacy in second language (L2) research
Studies in the L2 setting have been conducted to demonstrate a connection between self-efficacy and motivation (e.g., Mori, 2002), writing performance (e.g., Cheng, 2002), and reading proficiency (Chamot, Barnhardt, El-Dinary, & Robbins, 1996; Mills et al, 2006; 2007), but under closer examination many of these studies often suffer from problems with design and/or analyses.

In a study redefining motivation to read in a foreign language, Mori (2002) using the Motivation for Reading questionnaire (Wigfield & Guthrie, 1997) investigated the sources of reading motivation in 447 EFL students at a university in Japan. The results indicated that reading self-efficacy is an important component of reading motivation. One of the major critiques of Mori's (2002) study has also been an inconsistency between the items on the questionnaire and the fundamental tenets of self-efficacy. Mori mistakenly combined measures of other constructs within her foreign language reading efficacy items. For example, the item, "I liked reading classes at junior and senior high schools" questions more the students' enjoyment in reading in a foreign language than reading self-efficacy.

In a similar vein, inconsistencies become apparent in a study conducted by Cheng (2002). The researcher aimed to investigate the relationship between foreign language writing anxiety and foreign language writing self-efficacy with 165 Taiwanese EFL students. Amongst the multitude of questions from five surveys that the participants completed, there was only one question included to measure foreign language writing self-efficacy and, moreover, it was conceptually flawed. Cheng (2002) asked the learners to "rate their English writing ability" on a Likert-scale from 1 (*Not proficient at all*) to 5 (*Very proficient*). The question did not mention a context from which the participants could imagine and make an accurate rating for self-efficacy. The wording of the question does not reflect the task-specific, domain-specific nature of the self-efficacy theory. The results showed that the participants' self-perceptions of confidence in

English writing largely explained the variance in second language writing anxiety (34%), however, as intimated above, the reliability and validity of these results remain under debate.

A similar problem plagued the study of Chamot et al. (1996) in which they investigated the effects of strategy training on self-efficacy and proficiency with American high school students of Japanese (*n* = 93), Russian (*n* = 239) and Spanish (*n* = 390). The results reflected an increase in student strategy use after instruction and indicated a familiarity with the strategies and their use. The only group that showed gains in self-efficacy over the duration of the study was the group of Japanese language students.

The study has been criticized heavily for the misrepresentation of the construct on the questionnaire used in the study. At the top of the questionnaire was a brief prelude to the survey, "You may often read texts such as dialogs, stories, and advertisements in Japanese as part of classwork or on your own." Following these instructions were five items designed to measure the participants' self-efficacy for each skill on a 100-point Likert scale. One example item was, "How sure are you that you can figure out the main topic or gist?" It quickly becomes clear that the participants would be unable to decipher what it was that the researchers were referring to when they wrote "main topic or gist." It is unclear as to which genre, "dialogs, stories, or advertisements," the researchers were referring to in these survey items.

To further examine the relationship between self-efficacy and proficiency, Mills et al. (2006) showed that an evaluation of 95 college students of French as a Foreign Language (FFL) revealed a significant relationship between reading self-efficacy and proficiency. In a later study, Mills et al. (2007), showed that self-efficacy for self-regulation in 303 FFL learners was a stronger predictor of intermediate French language achievement than were self-efficacy to obtain grades in French, French anxiety in reading and listening, and French learning self-concept.

In a more recent study, Latif (2015) studied writing apprehension in 57 Egyptian, senior English majors at an Egyptian university. In the study, which examined the reasons for writing apprehension, Latif found that low levels of self-efficacy in general language ability and low levels of self-efficacy for writing ability were found to be strongly related to apprehension in writing.

Another study that focused on self-efficacy and its relation to performance was conducted by Wu, Lowyck, Sercu, and Elen (2013). In this study, the researchers investigated the contribution that self-efficacy beliefs have on student perceptions of vocabulary learning, task complexity and task performance. They found that the participants' self-efficacy beliefs did not have a direct relation to their task performance. It was found that the effect of self-efficacy beliefs was mediated by the use of learning strategies. They also learned that task complexity did not seem to exert a significant impact on self-efficacy belief, frequency of learning strategy use, and task performance.

Investigating the effect of study abroad experiences on self-efficacy perceptions among foreign language learners, Cubillos and Ilvento (2013) found that the experiences of the study abroad program had a significant impact on self-efficacy for all FL subskills (reading, writing, listening and speaking). The researchers also found that the extent to which the learners had engaged with the L2 community while abroad directly related to how much they had improvements in levels of self-efficacy.

Gaps in the literature and purposes of the study
Despite the crucial role that self-efficacy has been shown to play in achievement in other fields, few studies in L2 settings have investigated the relationship between self-efficacy and motivation or achievement and those that had were highly criticized for misrepresentation of the construct and/or a lack of items to better measure the participants' level of self-efficacy. In addition, none of the studies explored the sources of self-efficacy and how past experiences impact the development of current self-efficacy levels. In order to address the above gaps in the literature, the following research questions were adopted:

1. To what extent have the participants' experiences in junior high school and high school, operationalized through the measurement of the sources of self-efficacy information--mastery experience, vicarious experience, social persuasion, and psycho-physiological state--affected the participants' current level of English reading self-efficacy? Hypothesis: There will be a correlation between reading self-efficacy scores between participants' junior high school, high school, and current (university) levels of reading self-efficacy.
2. Do higher levels of current reading self-efficacy predict higher levels of reading proficiency based on the scores of the TOEIC reading section?

METHOD
Participants and instruments
The study was conducted as part of a larger study investigating the effects of reading treatments on reading self-efficacy. The participants (*N* = 322) were all first- (*n* = 261) and second-year (*n* = 61) university students at a Japanese university. All the students were at a low-intermediate reading level according to the guidelines set by the American

Council on the Teaching of Foreign Languages (2012). The students were selected as they were all part of the program in which the researcher taught and comprised 14 intact classes. Because the students were at a low-intermediate level, they were considered average for Japanese university level learners. The study was conducted in the hopes of providing data to the mainstream educators in Japan and abroad, so low-intermediate level was considered an appropriate level to focus the research on. The researcher had direct access to all the participants and as such, was able to monitor all the classes and the distribution, completion and tabulation of all questionnaire data. Students were given a consent form and only the data from those students who agreed to be part of the study was included in the final results.

Sources of reading self-efficacy questionnaire.
As mentioned earlier, there is an expanding body of research to suggest that students in Asian cultures have weaker academic self-efficacy than do their western counterparts (Oettingen, 1995; Salili et al., 2001). A number of reasons have been offered to explain this finding. As in any culture, schools tend to be shaped by the values and standards set by that culture. In the Asian educational context, teachers are more inclined to provide performance feedback that highlights weaknesses instead of strengths. Emphasis is often placed more on the value of hard work and effort instead of a reliance on ability. In addition, standards are sometimes set unrealistically high in regards to success. All of these factors affect the way in which Asian learners' self-efficacy beliefs are formed.

One purpose of this study is to investigate the role that past sources of reading self-efficacy (from junior high school and high school) plays on current levels of reading self-efficacy. Bandura (1997) stated that, "Successes build a robust belief in one's personal efficacy. Failures undermine it, especially if failures occur before a sense of efficacy is firmly established" (p. 80). Therefore, it is important to investigate the past reading self-efficacy of the participants, in order to relate it to their current levels.

The sources of reading self-efficacy questionnaire (see Appendix A) consisted of 50 items divided into two sections concerning junior high school reading self-efficacy (25 items) and high school reading self-efficacy (25 items). In addition, the participants were also asked to gauge themselves based on these sources for their current university experiences (Appendix B). The items were adapted from Bandura's four principal sources of information: mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective indices (Bandura, 1997).

The Likert-scale asked the participants to respond to the question, "To what degree do you agree or disagree with the following statements?" Participants provide judgments based on a 6-point Likert scale ranging from 1 (*Strongly disagree*), 2 (*Disagree*), 3 (*Slightly disagree*), 4 (*Slightly agree*), 5 (*Agree*), and 6 (*Strongly agree*). The items focused on the sources of self-efficacy purported by Bandura (1997). Typical items are below.

- *vicarious experience:* "I saw my classmates reading English well, so I knew I could read English well too, if I tried."
- *verbal persuasion*: "Students who were older than me told me that I was good at reading in English."
- *physiological cues*: "I got a little nervous when I was trying to read something in English."
- *mastery experiences*: "Among my friends, I was the one who helped the others with English reading questions."

Reading Proficiency Measurement: TOEIC® *Test Reading Scores.*
To measure the participants' reading proficiency for the study, the scores from the reading section of the TOEIC® test were used. All of the participants, following the curriculum of their department, were required to take the TOEIC® exam every year. The test is a pen-and-paper, multiple choice test. There are two sections, listening and reading, both of which have 100 questions. Test-takers are given 45 minutes for the listening section and 75 minutes for the reading section, for a total of 120 minutes for the entire test. The reading section is comprised of cloze vocabulary and grammar questions in a single sentence format, error recognition or text completion within a longer passage, and general reading comprehension. The highest possible score for the exam is 990, 495 for each section. The TOEIC® test is an internationally-recognized, standardized English language exam with generally high levels of reliability and validity (Chapman, 2005). For the students in this study, the mean score for the reading section of the TOEIC® Test was 315.

Procedures
The Japanese academic calendar runs from April to January. There is a 2-month summer vacation in August and September between the first and second semesters. The sources of reading self-efficacy questionnaire was given in the second week of May. Because the semester starts in April, it was thought that many of the first year students needed to get used to life at the university before being asked about their current levels of self-efficacy. Even if the students normally had high levels of self-efficacy, during the first month they may may have felt anxious and therefore might have rated their levels of self-efficacy a little lower than is normally

true for them. So, once they were in a normal situation (after a month into the university program and not so anxious) and could answer the survey questions without unusual anxiety, they were given the questionnaire. The participants were required by their department to take the TOEIC test in the second week of December.

FINDINGS AND DISCUSSION
Research question 1
This research question asked to what extent the participants' past levels of reading self-efficacy are related to their current level of reading self-efficacy. The data used for this analysis were the Rasch measures derived from (a) the sources of reading self-efficacy questionnaire (retrospective), which asked the participants to reflect on their experiences in junior high school and high school English reading classes, (b) the sources of reading self-efficacy questionnaire (current).

In this study, raw scores were obtained from both instruments listed above, however, these scores are fundamentally difficult to compare across groups and time. Rasch analysis was utilized to assess validity and reliability of the questionnaire and test in this study, as well as, to create true interval-scale measures from the raw scores obtained.

While following a series of steps set out by Wolfe and Chiu (1999) in the preliminary analysis of the data received from the sources of reading self-efficacy questionnaire, the results indicated that the questionnaire items were bidimensional rather than unidimensional. The mastery experiences, vicarious experiences, and verbal persuasion elements formed one variable (MVV), while the physiological response items formed a second variable (PHYS). Therefore, these two variables are analyzed separately. However, for the main analysis, Pearson product-moment correlation coefficients were calculated among all four sources of self-efficacy.

The analysis was conducted by calculating Pearson product-moment correlation coefficients among the Rasch measures from both the MVV and PHYS variables of the sources of reading self-efficacy questionnaires for the junior high school, high school, and university experiences. The objective of this analysis was to determine to what extent the early levels of reading self-efficacy (junior high school and high school experiences) effect current levels of reading self-efficacy.

Descriptive statistics for the MVV and PHYS variables are displayed in Table 1. Correlation coefficients were computed among the Rasch measures for junior high, high school, and university data for both MVV and PHYS variables. The results presented in Table 2 show that ten of the twenty-one correlations were statistically significant when $p < .01$, and one was significantly significant when $p < .05$. The correlation between high school MVV and university MVV was a moderately high correlation at $r = .45$. University PHYS also seemed to fairly strongly correlate with Junior PHYS ($r = .42$) and High PHYS ($r = .41$). In general, the results suggest that junior high and high school experiences, both MVV and PHYS, have a relationship with the participants' current levels of reading self-efficacy, although the results do not suggest an extremely strong relationship.

The results for the MVV variable (see Table 2) suggest, albeit weakly, that those who experienced positive performance accomplishments, vicarious experiences, and verbal persuasion in junior high school, also experienced that positive feedback in high school and in university. Conversely, those who might have experienced more failed attempts at reading in English, fewer vicarious experiences, and less verbal persuasion in junior high school, also did so in high school and university.

Table 1. Descriptive statistics for the sources of reading self-efficacy questionnaire

	MVV			PHYS		
	Junior	**High**	**University**	**Junior**	**High**	**University**
M	-.446	-.471	-.440	.975	.970	.726
SE	.076	.076	.056	.082	.085	.063
95% CI						
LB	-.595	-.620	-.551	.815	1.138	.602
UB	-.297	-.322	-.329	1.136	.920	.850
SD	1.362	1.360	1.013	1.463	1.527	1.135
SK	-.139	-.307	-.341	.841	.429	1.337
SES	.136	.136	.136	.136	.136	.136
KT	.310	.421	-.451	1.198	1.631	3.068
SEK	.271	.271	.271	.271	.271	.271

Note. CI = 95% confidence interval; SK = skewness; KT = kurtosis; SES = Standard error skewness; SEK = Standard error kurtosis; MVV = self-ratings for the mastery experiences, vicarious experiences, and verbal persuasion elements on the sources of reading self-efficacy questionnaire (retrospective and current); PHYS = self-ratings for the physiological response element on the sources of reading self-efficacy questionnaire (retrospective and current); Junior = junior high experiences, High = high school experiences, University = university experiences.

Table 2. Correlations among sources of reading self-efficacy

	Junior MVV	High MVV	University MVV	Junior PHYS	High PHYS	University PHYS
Junior MVV	--					
High MVV	.48**	--				
University MVV	.37**	.45**	--			
Junior PHYS	.21**	-.06	-.03	--		
High PHYS	-.07	.11*	.01	.63**	--	
University PHYS	.00	.00	-.09	.42**	.41**	--

Note. **p = .01; *p = .05; MVV = self-ratings for the mastery experiences, vicarious experiences, and verbal persuasion elements on the sources of reading self-efficacy questionnaire (retrospective and current); PHYS = self-ratings for the physiological response element on the sources of reading self-efficacy questionnaire (retrospective and current); Junior = junior high experiences, High = high school experiences, University = university experiences.

The same is true for the PHYS variable (see Table 2). Those who might have experienced anxiety that manifested itself in physiological responses in junior high school likely experienced those same sensations in high school and university.

Conversely, those who did not recognize those types of reactions in junior high school were less apt to experience them in high school and university, as well. By analyzing these correlations, it becomes clear that reading self-efficacy is not a static, fixed construct, but rather a dynamic and malleable one, but to what degree early experiences influence reading self-efficacy remains largely under-investigated in EFL contexts. Although Bandura claims that early experiences exert a strong influence on self-efficacy development, the results here do not strongly support that claim. This may be partly explained by the differences that some researchers (Oettingen, 1995; Salili et al., 2001) feel exist between the way self-efficacy influences behavior among various cultures.

A closer inspection of the descriptive statistics for the MVV sources of reading self-efficacy questionnaire shows that the participants experienced the highest level of positive feedback from mastery experiences, vicarious experiences, and verbal persuasion in their university years. However, the participants experienced the most positive physiological feedback while in junior high school, and the least in their university years.

These results suggest that while the participants might have felt that they accomplished more, learned more from vicarious experiences, or received more positive verbal feedback in English reading classes in their university years, these elements might have been accompanied by some anxiety. It was the case that the majority of the participants were first year students and may have been asked to participate in learning styles that were different from what they were accustomed to. Because of this, many of them might have experienced a level of anxiety that manifested itself through physiological reactions. In university, the participants were given a level of autonomy they had never been offered before. Although many of the participants might have welcomed this change and found it liberating and empowering, it might have been slightly awkward in the beginning. The shift of onus from the teacher (i.e., in junior high and high school) to the participant (university classes) could have caused anxiety in the participants.

Bandura claims that difficulties such as the ones experienced by the participants of this study when attempting to learn through a new method where the individual is given autonomy and responsibility over one's learning can be facilitative to a certain level. It is the challenging experiences that learners overcome that are ultimately most related to improvements in self-efficacy. Bandura (1997) states:

> Difficulties provide opportunities to learn how to turn failure into success by honing one's capabilities to exercise better control over events. After people become convinced that they have what it takes to succeed, they persevere in the face of adversity and quickly rebound from setbacks. By sticking it out through the tough times, they emerge from adversity stronger and more able (p. 80).

Research question 2

Research question 2 asked if current levels of reading self-efficacy predict higher levels of reading proficiency. Did participants who perform well on the TOEIC test have higher levels of current reading self-efficacy? The 322 participants were ranked according to their scores on current reading self-efficacy, and then divided into three groups; high (*n* = 107), mid (*n* = 108), and low (*n* = 107). This analysis was conducted using a one-way ANOVA with the three groups as the independent variable and the TOEIC reading section scores as the dependent variable. Before conducting the ANOVA, the assumption of homogeneity of variance was checked and met. In addition, the skewness and kurtosis values were within acceptable limits.

The descriptive statistics for the reading TOEIC scores and current reading self-efficacy for the three groups are displayed in Table 3, and Figure 1 shows a graphical display. The results of the ANOVA indicated a significant group effect, $F(2, 320) = 3.65$, $p < .05$.

Table 3. Descriptive statistics for the TOEIC scores and current reading self-efficacy

	TOEIC scores			Current reading self-efficacy		
	High	Mid	Low	High	Mid	Low
M	.753	.163	-.521	.987	.791	.548
SE	.031	.013	.040	.119	.095	.129
95% CI						
LB	.691	.138	-.600	.751	.604	.293
UB	.815	.188	-.442	1.223	.979	.803
SD	.325	.134	.413	1.232	.984	1.330
SK	.377	.047	.597	.693	-.423	-.015
SES	.234	.233	.234	.234	.233	.234
KT	.435	-.198	.886	.409	-.044	.025
SEK	.463	.461	.463	.463	.461	.463

Note. CI = 95% confidence interval; SK = skewness; KT = kurtosis; SES = Standard error skewness; SEK = Standard error kurtosis; High = group that had highest gains on ratings for the perceived utility of extensive reading questionnaire; Mid = group that had the second highest set of gains on ratings for the perceived utility of extensive reading questionnaire; Low = group that had the lowest gains on ratings for the perceived utility of extensive reading questionnaire.
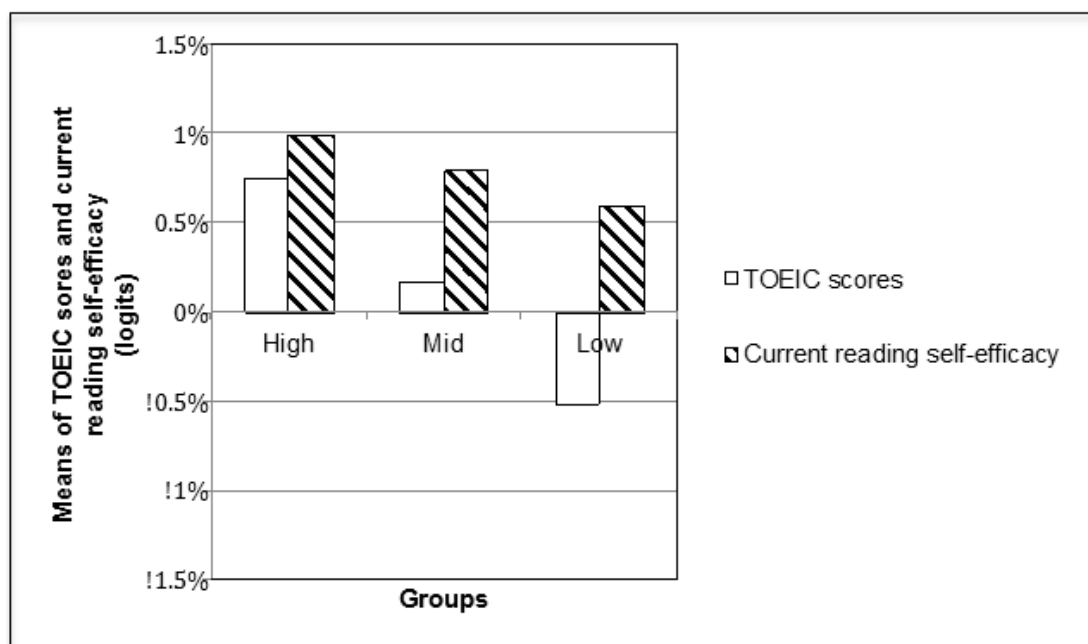

Figure 1. Mean gain scores for TOEIC scores and current reading self-efficacy (high, mid, and low groups).

Follow-up tests were conducted to evaluate pairwise differences among the means. Because the variances among the three groups were not significantly different and the number of pairwise contrasts was limited, *Tukey's* test was used for the post hoc comparisons. There was a significant difference ($p < .05$) between the high and low groups, $p = .02$ but no significant difference between high and mid, $p = .41$, or low and mid, $p = .33$.

Overall, the level of current reading self-efficacy translated into higher levels of reading proficiency. The most plausible explanation for these findings is that for the participants in this study, self-efficacy played a mediating role between motivation and achievement. According to several researchers, self-efficacy beliefs are a better indicator of success than one's actual abilities, skills, or knowledge because of the influential role self-efficacy plays in facilitating behaviors (Bandura, 1977, 1997). Further results reflect a positive relationship between self-efficacy and successful academic performance (e.g., Yang, 1999) and academic motivation (Bong & Clark, 1999). The results of this study confirmed the results of other studies that found a relationship between reading self-efficacy and proficiency (Mills et al., 2006; 2007).

Bandura (1982, 1997) claims that those who are more self-efficacious in regard to a task, initiate opportunities to practice that task, expend more effort executing that task, and persevere through problems that arise when attempting that task. Presumably, one of the explanations for the relatively strong relation between current reading self-efficacy and reading proficiency is that as the participants of the high group were more self-efficacious readers of English, they were more motivated and spent more time and energy on learning to read in English. This would have clearly led to significant increases in reading proficiency.

LIMITATIONS OF THE STUDY

Like in any study that has utilized Likert-scale questionnaires, there is always a risk that the participants will not offer accurate information, but information that they feel the researcher, in this case, their teacher might want to receive. When conducting the surveys, the researcher was quite clear to the participants that they should feel free to answer the questionnaire questions honestly and frankly and not feel obliged to respond in any certain way. In order to safeguard against these types of problems, the research might also have utilized qualitative measures to confirm the results of the quantitative data collected from the questionnaires. The study could be improved and replicated by adding a qualitative element such as (1) observations, (2) open-ended question surveys, and/or (3) conducting interviews with selected students.

Another possible complication with the study also related to the survey also involves the sources of reading self-efficacy questionnaire (retrospective) (Appendix A). The questionnaire required the participants to recall events and experiences from their fairly distant past, events that occurred 6-7 years prior to the time the students took the questionnaire. There is a real possibility that students were unable to accurately remember how they felt, i.e., self-efficacy, from their junior high school years. Therefore, the data from the retrospective questionnaire should be interpreted with some caution.

PEDAGOGICAL IMPLICATIONS

These results also hold very important implications for the EFL reading classroom. The findings from research question 1 show that there are relationships between junior high school, high school, and university levels of self-efficacy. Although the correlational analyses cannot show a causal relationship, these findings might suggest that self-efficacy does not change much once set. Those who were self-efficacious in junior high also exhibited similar levels of self-efficacy in high school and university. Therefore, it might lend support to the idea that trying to provide learners with early positive experiences of success that might help to boost self-efficacy can also help them to be more self-efficacious later in their studies. In regard to EFL reading, possibly teaching reading strategies and giving learners authentic opportunities to read would help learners gain a stronger sense of self-efficacy. In addition, the findings from the ANOVA in research question 2 suggest that reading self-efficacy significantly influences reading proficiency and therefore, teachers should be aware of this and try to capitalize on this motivating factor.

The sources of self-efficacy, as mentioned above, are mastery experiences, vicarious experiences, verbal persuasion, and physiological signals (Bandura, 1989). Within this framework, it is important for instructors to be aware of all the possible ways to help learners improve their self-efficacy. Providing students with challenging, yet achievable tasks in class can provide them with valuable positive experiences that may help to boost their self-efficacy. In addition, offering students support and praise for tasks completed may also help on the verbal persuasion source. Teaching students strategies to manage their foreign language anxiety may also reduce the detrimental effects of that component on self-efficacy.

SUGGESTIONS FOR FUTURE RESEARCH

The results of this study sparked further topics that could be used to lead future research. For example, in this study, the results show that once self-efficacy is set for an individual in regard to a particular task and domain, that sense of self-efficacy tends to play a role in future self-efficacy. Therefore, (1) it would be important to determine what types of activities might be best to introduce to learners in order to give them opportunities for building their self-efficacy. These types of treatments have not been clearly identified in the EFL context yet. Another area that needs further exploration is (2) how self-efficacy for other skills, not just reading, influences the behavior and motivation of EFL students studying those skills. For example, the benefits that training in speaking or listening strategies may hold for improving student self-efficacy remain largely under-investigated. Another topic that deserves attention would be (3) the idea of altering self-efficacy. Is it possible to change self-efficacy once that it has been set? Are there ways to help those who suffer from low self-efficacy to improve their self-efficacy and ultimately their motivation to learn in a particular domain? Another area of interest would be the way that each of the four sources of self-efficacy play a role in developing self-efficacy.

Bandura (1989) claims that the mastery experiences are the most influential sources of self-efficacy. If a learner has a successful actual attempt at learning a language, that will mostly likely translate into a higher sense of self-efficacy, while a failure will tend to undermine self-efficacy. In western cultures, mastery experiences may play a bigger role in self-efficacy development than the other three sources of self-efficacy. However, in an Asian context, where cultures are considered to be much more collective and built on strong relations between members of a group, the role that vicarious experience and verbal persuasion play in the development of self-efficacy may be different from those in the West. More research needs to be conducted to determine if the different sources of self-efficacy have a more of less powerful role in forming self-efficacy in different cultures. These are

all questions that remain unanswered and might lead future research endeavors.

CONCLUSION

The purpose of this study was to investigate how past sources of reading self-efficacy have influenced the current level. The findings showed that although there is a moderate correlation, it may not be as strong as some researchers have hypothesized. These differences may be based on cultural influences. In addition, the connection between self-efficacy and performance found in this study confirmed the results of other studies that show that self-beliefs facilitate motivation and eventual gains in performance.

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APPENDIX A

SOURCES OF READING SELF-EFFICACY QUESTIONNAIRE (RETROSPECTIVE)

Retrospective Reading Self-Efficacy Questionnaire
This is a survey to investigate readers' self-efficacy in reading English, retrospectively (from the past).

Please answer the following questions based on your confidence for reading in English when you were in junior high school and high school. Referring to the scale below (1~6), please answer the following items by indicating to what degree you agree or disagree with the statement.

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly Agree

English reading self-efficacy while in junior high school

1	My English reading class teacher made comments that made me feel like I was good at reading in English.	1 2 3 4 5 6
2	I felt comfortable when I was trying to read something in English.	1 2 3 4 5 6
3	I had more successes than failures in my English reading classes.	1 2 3 4 5 6
4	I had friends who read well and showed me how to read better.	1 2 3 4 5 6
5	I was one of the best readers in my English reading class.	1 2 3 4 5 6
6	My friends told me I was good at reading in English.	1 2 3 4 5 6
7	When in English reading class, I feel physically uncomfortable.	1 2 3 4 5 6
8	I felt confident about my English reading ability in junior high school.	1 2 3 4 5 6
9	My English reading class grades were better than my grades in other subjects.	1 2 3 4 5 6
10	I saw my friends reading English well, so I knew I could read English well too, if I tried.	1 2 3 4 5 6
11	My parents told me I was good at reading in English.	1 2 3 4 5 6
12	I felt nervous in English reading class.	1 2 3 4 5 6
13	I felt good when I was able to complete a difficult reading passage in English.	1 2 3 4 5 6
14	Among my friends, I was the one who helped the others with English reading questions.	1 2 3 4 5 6
15	Students who were older than me told me that I was good at reading in English.	1 2 3 4 5 6
16	I did not want to do my English reading homework, because I did not think I could understand it well.	1 2 3 4 5 6
17	I felt nervous when the teacher asked me to read something in class.	1 2 3 4 5 6
18	My teachers would often call on me to answer question in English reading class.	1 2 3 4 5 6
19	There were students who were older than me who read well and showed me how to read better.	1 2 3 4 5 6
20	The Native English Teacher in my school told me I was good at reading in English.	1 2 3 4 5 6
21	During English reading tests, my mind went blank and I could not focus.	1 2 3 4 5 6
22	My classmates asked me for help if they had a difficult question about English reading.	1 2 3 4 5 6
23	My teachers encouraged me to study English in the future (at university).	1 2 3 4 5 6
24	I saw my classmates reading English well, so I knew I could read English well too, if I tried.	1 2 3 4 5 6
25	I had classmates who read well and showed me how to read better.	1 2 3 4 5 6

1	2	3	4	5	6
Strongly disagree	**Disagree**	**Slightly disagree**	**Slightly agree**	Agree	**Strongly Agree**

English reading self-efficacy while in high school

26	My English reading class teacher made comments that made me feel like I was good at reading in English.	**1 2 3 4 5 6**
27	I felt comfortable when I was trying to read something in English.	**1 2 3 4 5 6**
28	I had more successes than failures in my English reading classes.	**1 2 3 4 5 6**
29	I had friends who read well and showed me how to read better.	**1 2 3 4 5 6**
30	I was one of the best readers in my English reading class.	**1 2 3 4 5 6**
31	My friends told me I was good at reading in English.	**1 2 3 4 5 6**
32	When in English reading class, I feel physically uncomfortable.	**1 2 3 4 5 6**
33	I felt confident about my English reading ability in high school.	**1 2 3 4 5 6**
34	My English reading class grades were better than my grades in other subjects.	**1 2 3 4 5 6**
35	I saw my friends reading English well, so I knew I could read English well too, if I tried.	**1 2 3 4 5 6**
36	My parents told me I was good at reading in English.	**1 2 3 4 5 6**
37	I felt nervous in English reading class.	**1 2 3 4 5 6**
38	I felt good when I was able to complete a difficult reading passage in English.	**1 2 3 4 5 6**
39	Among my friends, I was the one who helped the others with English reading questions.	**1 2 3 4 5 6**
40	Students who were older than me told me that I was good at reading in English.	**1 2 3 4 5 6**
41	I did not want to do my English reading homework, because I did not think I could understand it well.	**1 2 3 4 5 6**
42	I felt nervous when the teacher asked me to read something in class.	**1 2 3 4 5 6**
43	My teachers would often call on me to answer question in English reading class.	**1 2 3 4 5 6**
44	There were students who were older than me who read well and showed me how to read better.	**1 2 3 4 5 6**
45	The Native English Teacher in my school told me I was good at reading in English.	**1 2 3 4 5 6**
46	During English reading tests, my mind went blank and I could not focus.	**1 2 3 4 5 6**
47	My classmates asked me for help if they had a difficult question about English reading.	**1 2 3 4 5 6**
48	My teachers encouraged me to study English in the future (at university).	**1 2 3 4 5 6**
49	I saw my classmates reading English well, so I knew I could read English well too, if I tried.	**1 2 3 4 5 6**
50	I had classmates who read well and showed me how to read better.	**1 2 3 4 5 6**

APPENDIX B

SOURCES OF READING SELF-EFFICACY QUESTIONNAIRE (CURRENT)

This is a survey to investigate readers' (current) self-efficacy in reading English.

Please answer the following questions based on your confidence for reading in English while you are in university. Referring to the scale below (1~6), please answer the following items by indicating to what degree you agree or disagree with the statement.

1	2	3	4	5	6
Strongly disagree	**Disagree**	**Slightly disagree**	**Slightly agree**	**Agree**	**Strongly Agree**

English reading self-efficacy while in university

1	My English reading class teacher made comments that made me feel like I was good at reading in English.	**1 2 3 4 5 6**
2	I felt comfortable when I was trying to read something in English.	**1 2 3 4 5 6**
3	I had more successes than failures in my English reading classes.	**1 2 3 4 5 6**
4	I had friends who read well and showed me how to read better.	**1 2 3 4 5 6**
5	I was one of the best readers in my English reading class.	**1 2 3 4 5 6**
6	My friends told me I was good at reading in English.	**1 2 3 4 5 6**
7	When in English reading class, I feel physically uncomfortable.	**1 2 3 4 5 6**
8	I felt confident about my English reading ability in university.	**1 2 3 4 5 6**
9	My English reading class grades were better than my grades in other subjects.	**1 2 3 4 5 6**
10	I saw my friends reading English well, so I knew I could read English well too, if I tried.	**1 2 3 4 5 6**
11	My parents told me I was good at reading in English.	**1 2 3 4 5 6**
12	I felt nervous in English reading class.	**1 2 3 4 5 6**
13	I felt good when I was able to complete a difficult reading passage in English.	**1 2 3 4 5 6**
14	Among my friends, I was the one who helped the others with English reading questions.	**1 2 3 4 5 6**
15	Students who were older than me told me that I was good at reading in English.	**1 2 3 4 5 6**
16	I did not want to do my English reading homework, because I did not think I could understand it well.	**1 2 3 4 5 6**
17	I felt nervous when the teacher asked me to read something in class.	**1 2 3 4 5 6**
18	My teachers would often call on me to answer question in English reading class.	**1 2 3 4 5 6**
19	There were students who were older than me who read well and showed me how to read better.	**1 2 3 4 5 6**
20	The native English teachers at my university told me I was good at reading in English.	**1 2 3 4 5 6**
21	During English reading tests, my mind went blank and I could not focus.	**1 2 3 4 5 6**
22	My classmates asked me for help if they had a difficult question about English reading.	**1 2 3 4 5 6**
23	My teachers encouraged me to study English in the future (in graduate school).	**1 2 3 4 5 6**
24	I saw my classmates reading English well, so I knew I could read English well too, if I tried.	**1 2 3 4 5 6**
25	I had classmates who read well and showed me how to read better.	**1 2 3 4 5 6**