THE RELATIONSHIP BETWEEN SELF-EFFICACY AND LEARNERS' READING COMPREHENSION

Van-Thang Nguyen[1], Lan-Phuong Tran[2]

[1] PhD student at University of Languages and International Studies – VNU, Hanoi, Vietnam
Faculty of Foreign Languages, Thanh Dong University, Hai Duong province, Vietnam
[2] Faculty of Foreign Languages, Thanh Dong University, Hai Duong province, Vietnam

Corresponding Author: Van-Thang Nguyen
Phone number: (+84) 983.116.001
Email address: thangnv@thanhdong.edu.vn, nguyenvanthang305@gmail.com

Abstract

This quantitative correlation study examines the relationship between self-efficacy and reading comprehension among 314 non-English major students at a private university in Hai Duong province, Vietnam. The study utilized The Social Cognitive Theory by Bandura (1977) as its theoretical framework. Participants ranging from first-year to final-year students had to complete the TOEIC reading test and a questionnaire adapted from Wang and Bai (2017) and Pintrich and Groot (1990). The results indicate a positive correlation between students' self-efficacy and their reading comprehension. Particularly, the significant relationships were found between the domain of understanding familiar words and simple sentences, searching for the meaning of new words, and achieving good grades. Moderate correlations were observed for guessing unknown words, managing tasks in texts, and learning materials, while the weakest correlation was noted with comparing oneself to peers and understanding job-related language. Based on these findings, implications and recommendations are additionally proposed for further research on self-efficacy.

Keywords: reading comprehension, self-efficacy, higher education, the quantitative correlation study, the Social Cognitive Theory.

1. Introduction

[1] Corresponding Author. Email: thangnv@thanhdong.edu.vn, nguyenvanthang305@gmail.com

Reading comprehension is an essential competency in the field of education and is extensively acknowledged as a significant indicator of scholastic achievement in a multitude of disciplines and topics (Abbott, 2017; Barkley, 2005; Boakye, 2012). A high level of reading comprehension not only promotes knowledge acquisition but also empowers individuals to engage with information critically, think analytically, and communicate efficiently (Burrows, 2012). Consequently, it is critical for educational research to comprehend the factors that influence reading comprehension.

Self-efficacy, a concept borrowed from Bandura's (1977) Social Cognitive Theory, can be defined as the confidence that people have in their capacity to organize and execute the actions needed to accomplish certain goals. According to Barkley (2005), self-efficacy is a vital theoretical concept that determines the students' academic behaviour, motivation, and achievement results concerning education. Many works have also confirmed the relationship between the level of self-efficacy beliefs and academic achievement in numerous subjects, such as reading (Conway, 2017; Hager, 2017; Morgan, 1997). The above literature review shows that self-efficacy has been found to have a significant relationship with reading comprehension (Abbott, 2017; Chou, 2019; Rachmajanti, 2017). As stated by Umam et al. (2020), self-efficacy is a critical mediator to determine the students' ability in undertaking tasks and obtaining knowledge. Moreover, students should use appropriate critical reading strategies for the improvement of reading skills. Two variables that are central for understanding how people acquire knowledge from texts are self-efficacy (Morgan, 1997). In addition, another research revealed that self-efficacy shows effort and could have shown a positive effect on students' reading comprehension skill (Boakye, 2015). In this case, self-efficacy enhances the students' reading comprehension outcomes. It is consequently crucial to assess the possible effects of self-efficacy to create effective reading instruction. In addition, the higher self-efficacy expectation is the higher reading comprehension (Al-Jarrah & Ismail, 2018; Faruq, 2019).

It is evident that learners face numerous difficulties in comprehending reading texts (Faruq, 2019; Liao, 2015; Tobing, 2013). Wifong (2018) states the challenges cover all elements such as lexical, syntactical and structural issues, prior knowledge, inferential comprehension, and cohesion of the text. Vocabulary may be a problem in not understanding certain words and phrases and compound and complex structures may be difficult to comprehend (Yogurtcu, 2012). In addition, there is a possibility of learners having insufficient background knowledge which hinders their understanding of the text since they do not have the necessary background knowledge (Wang & Bai, 2017). Furthermore, the skill of inferential reasoning that is crucial for comprehension may be difficult for the learners who have problems with the concept development or logical thinking (Tobing, 2013). This is because texts that are not coherent or cohesive may worsen the already struggling comprehension by making it difficult to link the information and hence create a mental structure of the text.

To overcome these challenges, it has been determined that learners' self-efficacy beliefs act as a critical factor in defining the reading processes and the results. Comprehension difficulties can be overcome with high self-efficacy which in turn promotes motivation and persistence (Javad & Baqeri, 2019; Mbato, 2013; Morgan, 1997; Pintrich & De Groot, 1990). It helps learners to start a reading assignment with a positive attitude and with a set of effective techniques to use, including monitoring one's comprehension and exploiting context.

Additionally, self-efficacy acts as a form of protection against failure to promote learners' motivation and resilience when encountering difficulties in reading. Moreover, high self-efficacy strengthens the motivation and learners' initiative and striving for mastering, which make them look for challenges and opportunities to build their skills (Henk & Melnick, 1995). It is, therefore, apparent that self-efficacy beliefs have direct effects on learners' beliefs and practices regarding their reading comprehension. Thus, the study underlines the necessity of the further research on the influence of self-efficacy on learners' reading comprehension. The research question was addressed *"To what extent does self-efficacy impact learners' reading comprehension?"*

2. Literature review

2.1. Reading comprehension

Reading comprehension is one of the most critical aspects of academic achievement (Rachmajanti, 2017; Umam et al., 2020). Reasonably, it enables learners to understand and interact with texts across various subject areas. In a broader perspective, Chou (2019) advocates that reading comprehension is the ability to read, comprehend, and critically analyze written materials to gain meaning, relate ideas, and build a meaningful perception. In academic literacies, competent reading comprehension is vital for consuming and synthesizing information and ideas, for researching and for conveying ideas coherently. Furthermore, they define reading comprehension as not only confined to the literal level of reading but also to the higher levels of thinking that include meaning construction, critical analysis, and integration of ideas which are useful in enhancing understanding and critical thinking. Thus, Boakye (2015) states the enhancement of reading comprehension skills is one of the primary objectives of educational interventions designed to enhance learners' literacies, support their cognitive growth, and enable them to become knowledgeable and critical members of academic and other communities. Lastly, reading comprehension is an important competency that empowers the learners to succeed in their academic endeavors as well as in their future careers in the society that is characterized by complexity and competitiveness.

Motivation is one of the readers' factors that could be linked to reading comprehension for instance (Liao, 2015). In specific, motivation can impact students' reading comprehension in various ways. Cited by Ferrara (2005), those students who are more observant or active in reading are likely to have higher reading engagement, thus proving the effect of intrinsic motivation. According to Liao (2015) there is the suggestion that students with higher levels of self-efficacy might be more motivated to put in more effort in order to understand the text. Understanding the level at which one is reading, therefore, higher reading comprehension would probably come from this (Jarrah & Ismail, 2018). Furthermore, Liao (2015, p. 10) notes that, "there was a positive correlation between students' reading comprehension and self-determination motivation".

2.2. Self-efficacy

Reading self-efficacy is defined as the beliefs that an individual has about his or her ability to achieve a certain reading task and depends on the previous performance of the same task together with feedback that the individual received (Ferrara, 2005). According to Mohammed (2022), one of the critical factors in the development of reading from the low level to the high level is reading self-efficacy. Chapman and Tunmer (1995) state that based on the research, young children are able to and do make self-concept related distinctions in reading within and between the different areas.

2.3. The Social Cognitive Theory by Bandura (1977) and Self-efficacy

Albert Bandura's Social Cognitive Theory conceptualized in 1977 shifted the focus on the society and culture by stressing the dual determination of cognition and behavior in the social realm. In general, Bandura's theory is based on the premise of learning by observation, imitation and modeling, whereby cognitive processes link the stimuli in the environment with the individuals' behaviors. Social cognitive theory suggests that learning takes place through observation of others, evaluating the outcomes of one's own behavior, and modifying future behavior. In addition, Bandura also focuses on self-regulation and self-efficiency as key factors of human agency which illustrates the ability of people to set goals, assess their performance, and control their behavior.

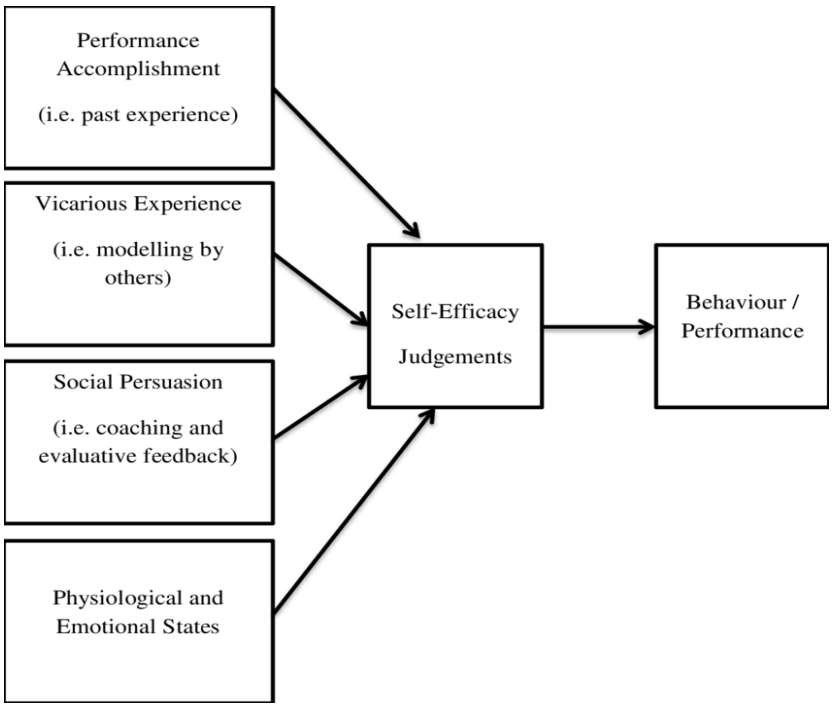

Figure 1. Self-efficacy's components introduced by Bandura (1977)

At the core of Bandura's Social Cognitive theory is self-efficacy, which is defined as the confidence to coordinate the necessary actions to achieve set goals. Self-efficacy beliefs influence people's motivation, their performance, and their ability to cope with stressors and adversities. According to Bandura, self-efficacy beliefs are influenced by four primary sources of information, namely performance accomplishment, vicarious experiences, social persuasion, and physiological and emotional states.

Mastery experiences are the most credible source of self-efficacy information, meaning past successes and failures; success enhances one's confidence and perceived capability while failure erodes it. Moreover, people obtain self-efficacy cues from observing other people's actions and consequences, from receiving support and encouragement from other people, and from paying attention to the feelings and bodily sensations during task achievement.

2.4. Effects of self-efficacy on reading comprehension

In a reading class, the main purpose for the teachers is to enhance the reading skills of their students (Barkley, 2005; Byberg, 2015). There are many ways on how the high self-efficacy can be enhanced among students including classroom environment and experience changes, reading strategies, and self-regulation. Both have their advantages and disadvantages but when effectively implemented, each is relevant in the school context (Barkley, 2005). Furthermore, Mohammed (2022) finds that reading self-efficacy is positively related to reading strategies used by KSA EFL students, which means the students with high levels of self-efficacy are likely to apply proper reading strategies. Furthermore, Delgado-Vasquez et al. (2022) reveal that reading comprehension, reading self-efficacy and attitudes have a positive correlation among university students and underscore the role of these variables in determining the students' reading performance. In Vietnamese teaching contexts, a directly positive relationship was established between the students' self-efficacy and academic achievement as revealed by Hong and Phan (2020) when they conducted the study on students in a technical institution in Vietnam and observed positive changes as the course progressed. Nguyen et al. (2022) also stress that the self-efficacy should be considered as the primary factor in language learning process to improve students' language achievement.

Existing research has primarily concentrated on specific populations, such as university students or primary learners. However, there is a notable gap in understanding the relationship between self-efficacy and reading comprehension across diverse learner populations, encompassing different educational levels, and majors. By addressing this gap, the researcher can gain a more mutual understanding of how self-efficacy influences reading comprehension across different demographic groups.

2.5. Previous studies

2.5.1. International previous studies

Apriliyani and Usuludin (2023) sought to determine the relationship between the self-efficacy of 179 senior high school students and their reading comprehension performance. The study employed correlation quantitative research with instruments namely the self-efficacy questionnaire adapted from The Motivated Strategies Learning measure and the TOEFL reading test. The results revealed that the correlation between reading comprehension and self-efficacy was not very high.

To control for the effects of other cognitive measures related to reading, Carroll and Fox (2017) examine the relationship between self-efficacy, word reading, and reading comprehension for the entire range of reading abilities. One hundred and ninety-nine children, with the age range of eight to eleven years, which included 86 males and 13 females, filled in self-report survey on reading self-efficacy and were given tests of vocabulary, working memory, auditory short-term memory, phonological awareness, and reading comprehension and word reading. The overall achievement and reading self-efficacy between boys and girls was almost comparable.

Boys and girls' reading self-efficacy was positively related to word reading and not to reading comprehension. It has been suggested that reading self-efficacy may not be a direct correlate of other measures of reading engagement and motivation. Reading self-efficacy, one of the components of reading motivation, is not very sensitive to gender differences as compared to other measures and has a great relationship with perceived reading ability of the students.

Conway (2017) investigated whether there is a correlation between the test results in reading comprehension of 24 high school students at Smith High School and their self-efficacy. To gather the required data, two tools including the questionnaire and observation were applied in the study. The other instruments used in the research to assess the participants' reading comprehension were the Measure of Academic Progress (MAP) Assessment developed by Northwest Evaluation Association (2017). The four subcategories of self-efficacy progress, observational comparison, social feedback, and psychological states and the total self-efficacy were assessed using the Reader Self-Perception Scale (Henk & Melnick, 1995). The findings showed a modest relationship between general perception and reading comprehension. Additionally, a moderate association was discovered between the social feedback sub-scale and reading comprehension. The Measure of Academic Progress (MAP) reading scores were displayed to be substantially linked with the observational comparison.

Delgado-Vasquez et al. (2022) investigated the relationship between reading comprehension, reading self-efficacy, and attitude toward reading among students at a Metropolitan Lima public university. The subjects were sampled through a non-probability technique since the population included 1102 university students. The distribution of the student population by the professional field was preserved during the calculations of the percentage of students. The findings indicated that there is a statistically significant correlation between the participants' reading comprehension, reading self-efficacy, and attitude toward reading. It is also established that self-efficacy influence reading comprehension as well as attitude towards reading, while reading comprehension influences attitude towards reading.

In another study, Hager (2017) focused on the relationship between second grade students in central Montana's reading performance and their reading self-efficacy. The Reading self-efficacy as well as the benchmark reading assessments were also administered to the participants. Reading comprehension was measured by the 2011 Dibels Next Reading End of Year Benchmark test, and reading related skills including language and writing, foundational skills, literature and information skills, and vocabulary use and functions were measured using the Northwest Evaluation Association Measures of Academic Progress (MAP) Reading for Primary Grades test. The results showed that there was no a strong relationship between reading skills and students' self-efficacy. With regard to the students' capacity of this age to assess their reading self-efficacy and achievement, the findings were rather ambiguous.

Mohammed (2022) aims to explore the correlation and the effect of this correlation on reading comprehension (RC) among Saudi EFL learners by analyzing the connection between reading strategies (RSs) and reading self-efficacy (RSE). Based on the study's objective, 183 EFL students from the University of Bisha were selected as the study's participants.

To gather information on the reading techniques and self-efficacy aspects, a questionnaire was administered to the individuals. Based on the findings, Saudi EFL students employed several reading strategies with the global reading strategy being the most frequently used, followed by the memory strategy. In the self-efficacy domain, the learners' confidence was the most dominant factor, and the second was their self-regulation. Furthermore, correlation analysis indicated a positive relationship between learners' RSE and RS with the coefficient of correlation being 0.502**. In addition, it showed that all the reading self-efficacy characteristics are moderately influenced by the reading strategies employed. It was also possible to establish certain links between RSs and RC as well as between SE and RC on one side.

Oranpattanachai (2023) aimed at determining whether there is a correlation between the reading strategy adopted by Thai EFL students, their self-perception, and their comprehension levels. The participants of the study are thirty-one Thai engineering students studying a TOEIC course in a public Thai university. The TOEIC reading comprehension test, reading strategy survey, and reading self-efficacy survey were used to collect the data. On the basis of the descriptive data, the reading comprehension skills of the participants are poor. The analysis of the obtained Pearson's correlation coefficient showed that there was a statistically significant relationship between their reading comprehension and the top-down approaches at the significance level of $p \leq .05$, as well as a statistically significant relationship between their reading ability and their overall reading strategy ($P \leq .05$). Nevertheless, there is not much correlation between reading achievement and bottom-up strategies. Furthermore, the descriptive result indicates that the individuals have a fairly good level of perceived reading self-efficacy. Furthermore, the Pearson's correlation coefficient test revealed that reading comprehension ability was positively related to reading self-efficacy with a statistically significant result of ($P \leq .01$).

2.5.2. Vietnamese teaching contexts

Hong and Phan (2020) employed self-efficacy questionnaire of the students prior and post the TOEIC course, the TOEIC scores of the students, and data from the focus group discussion with students of a technical college in Vietnam. The quantitative findings suggest positive changes in TOEIC self-efficacy while the qualitative data reveal how the students' cognitive processing of self-efficacy information affected the enhancement of self-efficacy. Thus, the findings indicate an incremental enhancement in the self-efficacy of the students after they join the course. Self-efficacy was an essential factor that influenced students' TOEIC score and was positively related to their score. It was found that mastering experiences significantly affect TOEIC self-efficacy more than the other factors. The findings related to previous research and recommendations made include the incorporation of self-efficacy in TOEIC teaching. The participants' self-efficacy is considered to be developed from the infancy level and teachers may consequently allowed the students to be independent in the improvement of their TOEIC proficiency. In general, TOEIC courses should promote conditions for learning that enhance the important sources of self-efficacy. Further, it is necessary to provide course content and feedback, which would increase levels of self-efficacy.

Nguyen et al. (2022) aimed to assess the relationship between self-efficacy attitudes and English learning outcomes among male and female university students. The target population consisted of 128 university Non-English majors from Dong Nai Technology University in Bien Hoa city. The quantitative component of the study entailed a survey that sought to capture the demographic data of the students as well as their perceptions towards their English language learning self-efficacy. Ten students were subjected to individual interviews in order to find out about the factors that shaped their self-efficacy beliefs and their performance in English. In order to determine the differences in self-efficacy and English achievement between males and females, t-test was applied. The results revealed that self-efficacy is indeed related to achievement. A clear gender divide was observed concerning the students' confidence level and their English learning. Lastly, the research offers a set of recommendations for educators focusing on the importance of self-efficacy since as a determinant of English language achievement.

Research across different countries has always indicated that self-efficacy has a great influence on many aspects of academic achievement in school including reading comprehension. International scholars have established that students' self-efficacy beliefs regarding their academic abilities are related to their reading abilities. Students who have high self-efficacy are more likely to be motivated, persistent and interested in reading projects. Similarly, the above mentioned studies have supported these findings, explaining the significance of the self-efficacy in defining students' reading patterns and choices in various cultural and academic context. According to these real world findings, this particular study employed Albert Bandura's social cognitive theory which postulates that human thought process in relation to their perceived abilities affects their behavior, motivation and achievement. The subsequent parts contribute to the development of the research and theoretical frameworks to the present study.

3. Methodology

3.1. Research design

The researcher employed with correlation research design with quantitative methodology within the study framework to understand how self-efficacy influenced learners' reading comprehension.

3.2. Setting and participants

The study was conducted with 314 non-English students in different majors and academic backgrounds. This is a private university located in the Northern Vietnam. The university offers a diverse range of training programs across various field, including civil engineering, business administration, accounting and other related disciplines. Table 1 demonstrates the breakdown of demographic information.

Table 1. Demographic information on various majors of students' academic experience

	First-year		Second-year		Third-year		Fourth-year	
Accounting	14	30.4%	13	28.3%	8	17.4%	11	23.9%
Information & Technology	16	42.1%	9	13.2%	8	21.1%	5	23.6%
Business Administration	21	50%	12	28.6%	9	21.4%	0	-
Faculty of Finance and Banking	13	39.4%	11	33.3%	7	21.2%	2	6.1%
Travel and Tourism Management	15	36.6%	16	39%	9	22%	1	2.4%
Land Management	13	37.1%	14	40%	8	22.9%	0	-
State Management	16	33.3%	22	45.8%	2	4.2%	8	16.7%
Civil Engineering	19	61.3%	4	12.9%	7	22.6%	1	3.2%

The demographic distribution of students is depicted across various faculties and academic years. The data reveals a diverse student body spanning eight faculties, each housing students at different stages of their academic journey, ranging from first-year to fourth-year students. Among these difficulties, students from Faculty of Civil Engineering boasts the highest number of first-year students, comprising 61.3% of its total enrollment, followed closely by the Faculty of Business Administration, where 50% are freshmen. Conversely, Business Administration and Finance and Banking exhibit more balanced distributions across academic years, with no fourth-year students reported in the former. Notably, certain faculties, such as Land Management, lack fourth-year students entirely. These statistics highlights the dynamic nature of student enrollment at the context, with varying patterns of academic progression observed across different faculties. Such insights into student demographics are instrumental for understanding the composition of the university community and informing strategic initiatives to support student success and academic development.

3.3. Data collection instruments

3.3.1. TOEIC reading test

The tools applied in the present work include a set of reading questions aimed at evaluating the participants' reading comprehension levels. Specifically, the tests are structured in alignment with the format of the TOEIC exam, focusing on three distinct sections: Part 5 – Incomplete sentences (40 questions), Part 6 – Text completion (20 questions) and Part 7 – Reading comprehension (40 questions). All the participants were given 75 minutes to complete the reading test. Having the reading section of the test in the TOEIC format guarantees the validity and comparability of the participants' reading comprehension levels.

3.3.2. Questionnaire

The research instrument employed in the study is a questionnaire that has been designed in two parts, ostensibly to serve a particular function of measuring the level of self-efficacy of the participants when in the process of reading TOEIC texts. Section 1 collects information about the participant's age, his academic major and what year in his course he is in. On the other hand, section 2 adopted from Questionnaire of English Self-efficacy by Wang and Bai (2017), and Pintrich and Groot (1990), contains twelve 5-point Liker Scale items.

The respondents were asked to assess their level of confidence in performing the tasks included in the scenario on the rating scale ranging from 1 ‘I cannot do it at all’ to 5 ‘I can do it well’. The questions address areas as familiar word recognition, simple sentence comprehension, using context to make educated guesses on the meaning of unknown word, comprehending English news, locating specific details in each material, using bilingual dictionary, recognition of high-frequency or job related language usage, self-perceived capability in reading ability as compared to peer students in the class, perceived confidence on overall academic competence and performance, to accomplish tasks and solve problems and map out their abilities.

3.4. Data analysis

In the present research, the quantitative data analysis was applied to analyze the correlation between the students’ self-efficacy, which was assessed by the questionnaire, and their performance on the TOEIC reading test. First of all, the reliability of the questionnaire items determining self-efficacy levels was calculated with Cronbach’s alpha coefficient through the reliability analysis in SPSS 22.0. This statistical measure helped in establishing the degree of reliability of the items used in the questionnaire in the measurement of the intended variable.

Table 2. Reliability of the questionnaire

Reliability Statistics

Cronbach's Alpha	N of Items
.984	12

The analysis of the reliability of the developed questionnaire gave a Cronbach’s Alpha coefficient of. Whereas the internal consistency, using a Cronbach Alpha Coefficient of 0.984 revealed a high level of internal reliability among the items. This coefficient proves that all of the items are geared to measure the same construct of self-efficacy in reading comprehension consistently. The Cronbach’s Alpha value near to 1.0 means that it is highly reliable and gives the consistent score for the questionnaire items. Thus, there can be a great deal of confidence of the Observer and Instrument reliability coefficients as regards the capability of the questionnaire when it comes to measuring up students’ self efficacy in comprehending read texts. This high reliability increases the credibility of the questionnaire, therefore, the credibility of the conclusions made in this study.

Subsequently, a Pearson correlation analysis was performed to investigate the relationship between students' self-efficacy levels and their scores on the TOEIC reading test. This analysis aimed to determine whether higher levels of self-efficacy were associated with better performance on the reading comprehension section of the TOEIC test.

4. Findings and discussion

4.1. Students’s attitudes towards their self-efficacy to read comprehensively

The evaluation of students' self-efficacy in comprehending English texts unveils a nuanced landscape, substantiated by statistical data demonstrated in Table 3.

Table 3. Descriptive statistics of students' attitudes towards their self-efficacy to read comprehensively

Descriptive Statistics

	N	Mean	Std. Deviation
SE.i1. Can you understand familiar names, words and very simple sentences, for example on advertisement, notices or letters?	314	3.360	.8466
SE.i2. When you read English texts, can you guess the meaning of unknown words?	314	2.646	.8029
SE.i3. Can you understand the English news on newspaper and magazines articles?	314	3.315	.8187
SE.i4. Can you find specific, predictable information in simple everyday material such as advertisements, online orders, or instant messaging?	314	3.274	.7922
SE.i5. Can you find out the meaning of new words by using English - English dictionaries?	314	3.334	.8266
SE.i6. Can you understand texts that consist mainly of high frequency every day or job-related language?	314	3.201	.8504
SE.i7. Can you read well when compared with other students in the class?	314	2.707	.8366
SE.i8. Can you become a good student when compared with others in this class?	314	2.869	.8640
SE.i9. Can you do an excellent job on the problems and tasks assigned in the texts for the class?	314	2.669	.7823
SE.i10. Can you receive a good grade in the class?	314	3.277	.8091
SE.i11. Can you know a great deal about reading texts?	314	2.783	.8255
SE.12. Can you learn the materials for the class?	314	3.124	.9011
Valid N (listwise)	314		

In different aspects of reading comprehension, students' self-efficacy was found to be differently effective as revealed by the statistical analysis. Of significance, the participants claimed that the number of advertisements they recalled was M = 3.360 in identifying familiar names, words and simple sentences used in advertisements, notices or letters to show adequate comprehension of simple English structures. However, there was a slight decline in confidence when the respondents encountered vocabulary that they were not familiar with since they achieved M= 2.646 (SD = 0.803) in explaining the meaning of the unfamiliar words. On the other hand, there was an improvement in confidence in reading English news articles; mean=3. This result was M=3.315 (SD = 0.818), although the level of the dependent variable was rather moderate. Surprisingly, participants seemed to be more confident in the use of English-English dictionaries to find meaning of new words; M=3.334 (SD = 0.826), which suggests that participants' language learning strategy aimed at overcoming linguistic barriers was used. In addition, the participants' perception of how well they read in relation to their peers provided a moderate level of self-confidence with M=2.707 (SD = 0.836).

Concerning the comparison with classmates' academic performance, the participants had contrasting views; however, they were confident that they would be able to obtain reasonable grades, as indicated by the mean score of 3.277. Also, the participants revealed good comprehension of the reading materials though they had a rather average level of confidence, with M=2783 (SD = 0. 825). These statistical findings offer evidence of the complexity of students' self-efficacy beliefs; thus, identifying areas of confidence and improvement for students' progress in achieving proficient English reading comprehension.

4.2. The relationship between students' self-efficacy and reading comprehension

The correlation analysis reveals a strong positive relationship between the self-efficacy questionnaire and performance on the reading comprehension test, which is illustrated in Table 4.

Table 4. The relationship between students' self-efficacy and their reading comprehension

Correlations

		Reading test	Self-efficacy
Reading test	Pearson Correlation	1	.797**
	Sig. (2-tailed)		.000
	N	314	314
Self-efficacy	Pearson Correlation	.797**	1
	Sig. (2-tailed)	.000	
	N	314	314

**. Correlation is significant at the 0.01 level (2-tailed).

The relationship between these variables can be measured by the Pearson correlation coefficient which is .797**, which points to a strong and statistically meaningful relationship. This indicates that the level of self-efficacy on reading comprehension is positively related to the reading test score. The self-efficacy increases, the higher scores they are; and vice versa. The level of statistical test used in the study was at 0.05 which is the generally accepted level of significance. 000 shows how this relationship is actually even stronger. The result provides the credibility of the relationship that exists between the variables.

The specific correlation is demonstrated in the Appendix of this paper. It is obvious that there is a consistently strong positive correlation between students' self-efficacy perceptions across various aspects of reading comprehension and their actual performance on the test. Specifically, items such as "Can you understand familiar names, words and very simple sentences?" (r =.784**), "Can you find out the meaning of new words by using bilingual dictionary?" (r = .777**), and "Can you have good grade in class?" (r =.761**) exhibit robust correlations with reading test scores, all significant at the 0.01 level. Similarly, other items including the ability of guessing unknown words (r =.746**), understanding English articles (r =.738**), managing problems and tasks assigned in the texts (r =.735**), and learning the materials (r =.730**), with correlation coefficients ranging from .720 to .749. On the other hand, the statistics indicated the less significate relationship of the self-efficacy domains including comparing to other classmates (r=.696**), and understanding job-related language (r=.700*).

Therefore, it can be inferred that there is a substantial positive correlation between students' self-efficacy beliefs regarding their reading abilities and their actual performance on reading comprehension tests. This indicates that students who express higher levels of confidence in these self-efficacy domains tend to perform better on reading comprehension tasks.

The results of the study are in consonance with the Bandura's Social Cognitive Theory and specifically the theory of self-efficacy. Self-efficacy beliefs that form the core of Bandura's theory are considered to be the key determinants of human behavior, motivation, performance, and perseverance. The findings are consistent with Bandura's theory that self-efficacy affects the achievement of goals since the students' self-efficacy beliefs were found to be positively related to their reading comprehension scores. The study further showed that self-efficacy perceptions of students in different aspects of reading comprehension influenced their actual reading performance as measured by tests. This agrees with Bandura's assertion that self-efficacy beliefs are derived from prior experiences, information received from others, and self-reflective processes of observing emotions when engaged in a particular activity. Mastery experiences are a major source of self-efficacy information, in which successful experiences increase confidence and perceived efficacy. Furthermore, this study supports Bandura's theory on self-efficacy beliefs in that students with high confidence levels in their reading skills are likely to perform better in reading comprehension tests.

The results of the current study contribute to and support the previous literature regarding the multifaceted link between self-efficacy and reading comprehension. Apriliyani and Usuludin (2023) identified that self-efficacy has a low correlation with reading comprehension, while this study established a high correlation between the variables. It is possible that variations in the results can stem from variations in samples, measures, or cultures, which requires future research. Likewise, Hager (2017) stated that there was no considerable relationship observed, which might be due to methodological discrepancy. On the other hand, Delgado-Vasquez et al. (2022) also reported a significant correlation that supports the current study's findings and the role of instructional practices and assessment methods in the results. Mohammed (2022) and Oranpattanachai (2023) also pointed out the need for instructional interventions and contextual factors on the students' beliefs regarding their capabilities. Carrol and Fox (2017) explained that the gaps exist due to the interconnection between self-efficacy, word reading, and comprehension with regard to variations in interest and motivation to read based on learning preferences and teaching methods.

Furthermore, the current study's findings align with previous research in Vietnamese educational settings, providing valuable insights into self-efficacy and reading comprehension dynamics among Vietnamese students. While Vietnamese studies are limited, parallels can be drawn with broader literature. For example, Nguyen et al. (2022) discovered a direct correlation between self-efficacy and English test results among Vietnamese university students, echoing the current study's results and emphasizing the universality of the relationship between self-efficacy and academic achievement. Additionally, Hong and Phan (2020) demonstrated enhanced self-efficacy in students after participating in a TOEIC course, supporting the importance of instructional interventions in strengthening self-efficacy beliefs. Cultural nuances, such as collectivism and deference to authority in Vietnamese culture, may influence students' perceptions and academic engagement.

Future research should explore how cultural factors intersect with self-efficacy beliefs to inform instructional practices and enhance students' academic success. By synthesizing international and Vietnamese studies, educators can develop targeted interventions to support student learning and achievement in Vietnamese educational contexts.

5. Conclusion

In conclusion, this study was designed to establish the correlation between self-efficacy and reading comprehension among non-English major students, based on Bandura's (1977) Social Cognitive Theory and self-efficacy. Using correlation research design, 314 participants were included in the study; TOEIC reading test and self-efficacy questionnaire were used. The present research was in accordance with Bandura's theory as it explained how self-efficacy beliefs influenced the behavior of the individuals and academic achievement. In detail, the study established that students' self-efficacy beliefs affected their reading comprehension in line with the concept of self-beliefs in achievement of personal goals. In addition, the findings showed that mastery experiences positively influenced self-efficacy of the students, which supports the view that success in the past boosts confidence and perceived competence. Moreover, the results of the current study contribute to the literature on self-efficacy and reading comprehension by supporting the theoretical assumptions of Bandura's Social Cognitive Theory. The analysis of the results' convergence and divergence with the prior research highlights the importance of further research on the factors that underpin these associations in various contexts. Furthermore, the findings of the study add to the literature on self-efficacy changes in Vietnamese educational contexts and help explain the cultural factors that shape students' perceptions and academic motivation.

The potential restraints of the study are associated with the sample being limited to a single university and the participants being non-English major students. This may limit the generalization and the causality of the self-efficacy and reading comprehension. However, the following limitations cannot be overlooked; the study used self-report measures and did not consider cultural context of the Vietnamese educational system. To mitigate these issues, the future research should employ panel designs to monitor the developmental process of self-efficacy perceptions and use both quantitative and qualitative data collection methods. Therefore, cross-cultural and cross-national research would help to reveal the experience of self-efficacy and would help to design the appropriate interventions for enhancing self-efficacy beliefs for students. Thus, the use of interdisciplinary research is beneficial in gaining more insights on self-efficacy and its implications on student learning and achievement.

References

[1] Abbott, R., Mickail, T., Richards, T., Renninger, K. A., Hidi, S. E., Beers, S. & Berninger, V. (2017). Understanding interest and self-efficacy in the reading and writing of students with persisting specific learning disabilities during middle childhood and early adolescence*, International Journal of Educational Methodology, 3*(1), 41-64.

[2] Al-Jarrah, H., & Ismail, N. S. B. (2018). Reading comprehension difficulties among efl learners in higher learning institutions. *International Journal of English Linguistics, 8*(7), 32. https://doi.org/10.5539/ijel.v8n7p32.

[3] Apriliyani, E. P. & Usuludin, M. A., Self-efficacy and its correlation with reading comprehension of senior high school students. *Indonesian Review of English Education, Linguistics, and Literature, 1*(1), 25-33.

[4] Bandura, A., *Social learning theory.* Prentice-Hall, 1977.

[5] Barkley, J. M. (2005). Reading education: Is self-efficacy important? Reading Improvement. Doctoral dissertation, Auburn University.

[6] Boakye, N. A. N. Y. (2015). The relationship between self-efficacy and reading proficiency of first-year students: An exploratory study. *Reading & Writing, 6*(1), 34-51. https://doi.org/10.4102/rw.v6i1.52.

[7] Boakye, N. A. N. Y. (2012). A socio-affective approach to improve students' reading comprehension abilities. Doctoral Dissertation, University of Pretoria.

[8] Burrows, L. (2012). The effects of extensive reading and reading strategies on reading self-efficacy. Doctoral Dissertation, Temple University.

[9] Byberg, L. B. (2015). A group of Norwegian lower secondary learners' reading experiences in English as a foreign language. Master Thesis, Temple University.

[10] Carroll, J. M. & Fox, A. C. (2017). Reading self-efficacy predicts word reading but not comprehension in both girls and boys. *Front. Psychol, 7:2056*, 1-9.

[11] Chapman, J. W., & Tunmer, W. E. (1995). Development of young children's reading selfconcepts: An examination of emerging subcomponents and their relationship with reading achievement. *Journal of Educational Psychology, 87*(1), 54-167.

[12] Chou, M. H. (2019). Predicting self-efficacy in test preparation: Gender, value, anxiety, test performance, and trategies. *The Journal of Educational Research, Taylor & Francis Journals, 112*(1), 61-71.

[13] Conway, B. (2017). Reading comprehension and self-efficacy. *All Capstone Projects*, 283, http://opus.govst.edu/capstones/283

[14] Delgado-Vásquez, A. E., Escurra-Mayaute, L. M., Atalaya-Pisco, M. C., Pequena-Constantino, J., Cuzcano-Zapata, A., Solis-Narro, R. S., Alvarez-Flores D. M., Rodriguez-Tarazona, R. E., Castro-Celis, E. A., & Torres-Acuna, W. (2023). Reading comprehension, reading self-efficacy and attitude towards reading in students at a metropolitan Lima State university. *Journal of Positive School Psychology, 6*(6), 6908-6917.

[15] Faruq, A. Z. A. (2019). Reading anxiety in english asa foreign language for undergraduate students in Indonesia. *Journal of Teaching & Learning English in Multicultural Context (TLEMC), 3*(2), 88–95.

[16] Hager, J. L. (2017). The relationship of reading self-efficacy and reading achievement in second grade students. Graduate Student Theses, Dissertations & Professional Papers, 11062.

[17] Henk, W. A., & Melnick, S. A. (1995). The reader self-perception scale (RSPS): A new tool for measuring how children feel about themselves as readers. *The Reading Teacher, 48*(6), 470-462.

[18] Javad, T., M., & Baqeri, M. (2019). The effect of self-efficacy on intermediate efl learner's reading comprehension improvement: Evidence from iranian english learners. *Communication and Linguistics Studies, 5*(4). https://doi.org/10.11648/j.cls.20190504.11.

[19] Kirby, J. R., Deacon, S. H., Bowers, P. N., Izenberg, L., Wade-Woolley, L., & Parrila, R. (2012). Children's morphological awareness and reading ability. *Reading and Writing, 25*(2), 389–410. https://doi.org/10.1007/s11145-010-9276-5.

[20] Liao, C. (2015). Predicting reading comprehension of 8th grade struggling readers: Fluency, self-efficacy, and intrinsic motivation, Doctoral Dissertation, University of California Riverside.

[21] Mbato, C. L. (2013). Facilitating EFL learners' self-regulation in reading: Implementing a metacognitive approach in an Indonesian higher education context. Doctoral Dissertation, Southern Cross University.

[22] Mohammed, G. M. S. (2022). The impact of reading strategies and self-efficacy on reading comprehension: The case of Saudi EFL learners. *Journal of Language and Linguistic Studies, 18*(1), 627-639.

[23] Morgan, V. G. (1997). The influence of reading comprehension and other selected factors on student dropouts in an urban Southeastern School District in Virginia. Doctoral Dissertation, Old Dominion University. DOI: 10.25777/h31c-q316.

[24] Nguyen, N. L. D., Tran, T. N., Pham, H. T. & Ha, T. Y. N. (2022). The relationship between students' self-efficacy beliefs and their English language achievement. *Journal of English Language Teaching and Applied Linguistics, 4*(2), 102-112. DOI: 10.32996/jeltal.2022.4.2.10.

[25] Nguyen, X. H. & Phan, T. T. N. (2020). Students' self-efficacy beliefs and TOEIC achievements in the Vietnamese context. *International Journal of Instruction, 13*(4), 67-86.

[26] Northwest Evaluation Association (NWEA), Retrieved, from https://www.nwea.org/content/uploads/2011/07/A-Parents-Guide-to-MAP-.pdf

[27] Oranpattanachai, P. (2023). Relationship between reading strategy, reading self-efficacy, and reading comprehension of Thai EFL students. *LEARN Journal: Language Education and Acquisition Research Network, 16*(1), 194-220.

[28] Pintrich P. R., De Groot E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *J. Educ. Psychol,* 82, 33–40.

[29] Rachmajanti, S. (2017). The relationship between reading self-efficacy, reading attitude and efl reading comprehension based on gender difference. *Journal of English Language, Literature, and Teaching, 1*(1), 20–26.

[30] Tobing, I. R. A. (2013). The relationship of reading strategies and self-efficacy with the reading comprehension of high school students in Indonesia. Doctoral Dissertation, Old Dominion University.

[31] Umam, C., Ushuludin, Moh. A., Ningrum, A. S. B., Syaifulloh, B., & Suci, D. N. (2020). Metacognitive awareness and self-efficacy: Do they contribute to indonesian EFL students' listening comprehension achievement? *Humanities & Social Sciences Reviews, 8*(4), 138–146.

[32] Wang, C., & Bai, B. (2017). Validating the instruments to measure ESL/EFL learners' self-efficacy beliefs and self-regulated learning strategies. *TESOL Quarterly, 51*(4), 931-947.

[33] Wang, C. H., Harrison, J., Cardullo, V. & Lin, X. (2018). Exploring the relationship among international students' English self-efficacy, using English to learn self-efficacy, and academic self-efficacy. *Journal of International Students, 8*(1), 233-250, doi: 10.5281/zenodo.1134299.

[34] Wilfong, L. (2018). Building fluency, word-recognition ability, and confidence in struggling readers: The poetry academy. *Reading Teacher, 62*(1), p. 4-13.

[35] Yang, G., Badri, M., Rashedi, A. A., & Almazroui, K. (2018). The role of reading motivation, self-efficacy, and home influence in students' literacy achievement: A preliminary examination of fourth graders in Abu Dhabi. *Large-scale Assess Educ, 6*(10), 1-19.

[36] Yogurtcu, K. (2012). The impact of self-efficacy perception on reading comprehension on academic achievement. *Procedia – Social and Behavioral Science, 70*, 375-368.

Appendix

Specific correlations between the test result and questionnaire items

Correlations

		Test	SE.i1	SE.i2	SE.i3	SE.i4	SE.i5	SE.i6	SE.i7	SE.i8	SE.i9	SE.i10	SE.i11	SE.i12
Test	Pearson Correlation	1	.784**	.746**	.738**	.720**	.777**	.700**	.718**	.696**	.735**	.761**	.719**	.730**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i1	Pearson Correlation	.784**	1	.846**	.914**	.867**	.973**	.871**	.826**	.816**	.837**	.913**	.811**	.871**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i2	Pearson Correlation	.746**	.846**	1	.768**	.740**	.814**	.769**	.954**	.859**	.978**	.781**	.911**	.812**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i3	Pearson Correlation	.738**	.914**	.768**	1	.940**	.892**	.909**	.788**	.763**	.787**	.967**	.773**	.843**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314

SE.i4	Pearson Correlation	.720**	.867**	.740**	.940**	1	.840**	.919**	.763**	.711**	.760**	.903**	.765**	.803**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i5	Pearson Correlation	.777**	.973**	.814**	.892**	.840**	1	.845**	.794**	.808**	.809**	.921**	.785**	.870**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i6	Pearson Correlation	.700**	.871**	.769**	.909**	.919**	.845**	1	.788**	.771**	.797**	.871**	.795**	.855**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i7	Pearson Correlation	.718**	.826**	.954**	.788**	.763**	.794**	.788**	1	.840**	.964**	.776**	.898**	.803**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i8	Pearson Correlation	.696**	.816**	.859**	.763**	.711**	.808**	.771**	.840**	1	.843**	.797**	.744**	.821**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i9	Pearson Correlation	.735**	.837**	.978**	.787**	.760**	.809**	.797**	.964**	.843**	1	.781**	.923**	.820**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i10	Pearson Correlation	.761**	.913**	.781**	.967**	.903**	.921**	.871**	.776**	.797**	.781**	1	.774**	.864**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i11	Pearson Correlation	.719**	.811**	.911**	.773**	.765**	.785**	.795**	.898**	.744**	.923**	.774**	1	.792**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
	N	314	314	314	314	314	314	314	314	314	314	314	314	314
SE.i12	Pearson Correlation	.730**	.871**	.812**	.843**	.803**	.870**	.855**	.803**	.821**	.820**	.864**	.792**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	314	314	314	314	314	314	314	314	314	314	314	314	314

**. Correlation is significant at the 0.01 level (2-tailed).