



The Relationship between English Self-efficacy and English Learning Achievement of L2 Thai Learners

Patchanok Kitikanan
Naresuan University, Thailand
nicenanina@gmail.com

Pornpan Sasimonton
Naresuan University, Thailand
yui_naruk@hotmail.com

Abstract

Most studies to date have explored the contribution that self-efficacy has on learning performance within each aspect of language learning. For example, how self-efficacy in listening contributes to improved listening performance. This paper will look at how self-efficacy in any aspect of language learning can make a positive contribution to the overall English learning performance. This study comprises three aims: 1) to investigate the learning achievement in English learning of the second language (L2) Thai learners; 2) to examine the levels of English self-efficacy of the L2 Thai learners on four aspects; and 3) to explore the relationship between each aspect of English self-efficacy and the English learning achievement of the L2 Thai learners. The subjects of this study were 32 Thai, fourth-year, English major students. The questionnaire to explore self-efficacy for four aspects of English is composed of 32 questions (8 questions for each aspect). The English learning achievement was measured by GPA of the English compulsory modules. The first two aims were answered with descriptive statistics. The last aim was answered using Pearson's correlations. The results showed that 1) all subjects had reached half (2.00) of the total GPA point (4.00); 2) each aspect of self-efficacy had relatively similar scores - around five from seven; and 3) English self-efficacies of all four skills had significant positive correlation to the English learning achievement, i.e. for self-efficacies of all English aspects, the higher self-efficacy, the higher English learning achievement students had. The results of this study suggest the importance of the self-efficacy in all language aspects on the overall success of English learning. They also suggest that developing only one aspect of self-efficacy might improve the overall English language achievement.

Keywords: English, self-efficacy, learning achievement, GPA, Thai learners



Introduction

For some time now, the focus of learning has moved from the teacher to the learner. Learners learn the target language better when they are motivated. For example, Kitikanan (2016) demonstrated that ideal L2 self which is the aim of becoming successful was significantly positively correlated to the accuracy in producing English fricatives that do not exist in Thai phonological system for L2 Thai learners. The research on motivation has received huge attention from researchers on L2 learning.

Self-efficacy is one of the motivation. It is the belief of one's capability to organise and spend efforts to succeed the goal (Bandura, 1977). The findings of many studies (e.g., Pintrich & De Groot, 1990; Zajacova, Lynch, & Espenshade, 2005) showed the importance of self-efficacy towards learning achievement.

Even though some studies investigated the relationship between self-efficacy of specific skills of language and specific areas of English learning achievement, such as self-efficacy in writing and writing academic achievement, to the best of our knowledge, none of the studies were carried out on the relationship between self-efficacy of specific skills of language and overall English learning achievement. Hence, this study has three aims: 1) to investigate the learning achievement in English learning of the L2 Thai learners; 2) to examine the levels of English self-efficacy of the L2 Thai learners on four aspects: listening, speaking, reading and writing; and 3) to explore the relationship between the English self-efficacy and the English learning achievement of the L2 Thai learners. In this study, the L2 Thai learners refer to the fourth-year English major students. This group was selected as they studied English in EFL context and they were in the final year of the Bachelor's degree (BA) which means they have completed all modules in the BA programme; hence they could be representative of the L2 Thai learners who are supposed to be highly motivated in English learning and they could represent the standard level education of Thai people before entering general labour force, i.e. Bachelor's degree.

The results of this study are expected to be useful for L2 Thai learners, English teachers and educational policy makers. L2 Thai learners can benefit from the results of this study when they realise the importance of self-efficacy in promoting their English learning ability. For teachers of English as a foreign language, they can use the results of this study to improve their teaching technique to improve knowledge transfer. For the policy makers, they might design teaching materials and modules to enhance the self-efficacy of the L2 Thai learners.

Learning achievement

The learning achievement refers to the success in the academic task which can be measured by many assessments. One of the popular assessments is the GPA which stands for 'Grade Point Average', the 'ratio of the total number of quality points to the total number of quarter hours of credit earned' (Parsons, 1969, p. 5). It is the grading



system originally used in the United States. It reflects the accumulated learning at a time when learners are close to the stage when they have to work as professionals (Betts & Morell, 1999).

Many studies, such as Laeheem (2012) and Bell (2006) showed strong correlation between GPA and the learning achievement. For example, Maleki and Zangani (2007) investigated the relationship of English proficiency and the academic achievement of Iranian learners of English, and their findings revealed the significantly strong correlation between the proficiency and the GPA of academic achievement. The other example is from Bell (2006) exploring the effects of self-regulated learning (SRL) and epistemological beliefs (EB) on the levels of academic achievement in online courses. The findings showed that GPA is one of the three variables that was significant in predicting the learning achievement in web-based learning environments. The findings of these studies support the use of GPA as a measurement of the English learning achievement. In this study, the higher GPA thus refers to the higher achievement in English learning. However, it should be noted that GPA might not be the most crucial indicator to the learning achievement of the students (Byrd, Garza, & Nieswiadomy, 1999; Light, Xu, & Mossop, 1987). It is possible that the performance in actual English communication requires various skills that cannot be completely measured by GPA.

Self-efficacy

Self-efficacy affects people's behavior in three ways (Pajares, 1996): 1) it influences people's behavior – the feeling of engagement in the task; 2) it helps estimate the effort and duration people are spending on the task; and 3) it affects people's thoughts and emotions.

Students tend to choose tasks that they think they can achieve and tend to avoid those they think they cannot do it. Higher self-efficacy is believed to lead to the higher effort that learners will spend to achieve the task. People with low self-efficacy feel that the tasks are more difficult than they actually are (Pajares, 1996). Zimmerman and Martinez-Pons (1990) explored self-regulated learning strategies in relation to verbal and mathematical efficacy of 90 students from academically gifted school and the other 90 students from regular school. The findings showed that even when the actual ability levels of students with high self-efficacy and those with low self-efficacy were similar, students with high self-efficacy tend to learn and achieve more than those with low ones. A number of research studies showed that self-efficacy plays an important role in helping to explain the learning of students and the performances of behavior that is related to learning achievement (Schunk, 1989).

Many studies were carried out to explore self-efficacy in language learning (e.g., Cheng, 2002; Shenghui Cindy Huang, Lloyd, & Mikulecky, 1999). Nevertheless, according to Mills, Pajares, and Herron (2007), the validity of the items to measure self-efficacy remains problematic, such as measuring the self-efficacy based on only one-item (Cheng, 2002) or combining items measuring self-efficacy and other constructs (Mori, 2002). Even so, exploring self-efficacy in the field of language learning has become more prominent in the 21st century as the researchers focus on



understanding its psychological role in subjects' development of language (Mills, 2014).

The relationship between the learning achievement and self-efficacy

Many studies (e.g., Pintrich & De Groot, 1990; Zajacova et al., 2005) showed that self-efficacy is positively correlated to the academic performance. For example, Pintrich and De Groot (1990) examined the relationship between motivational orientation, self-regulated learning and academic achievement. Their subjects were 173 seventh-grade students. Their self-efficacy was measured with nine items on seven-point scale. Their findings revealed that students with high self-efficacy were more likely to report their use of cognitive strategies, to be more self-regulating in reporting more use of metacognitive strategies and to persist at difficult academic tasks. The other example is from the study of Zajacova et al. (2005) examining the effects of self-efficacy and stress on the academic performance. There were three models that were run in their analysis. All models were similar in including age, gender, race, nativity status, primary language spoken in the home and high school GPA as main independent variables. They were different in that the first model had stress as the additional independent variables, but not self-efficacy. The second model had self-efficacy as the additional independent variables, but not stress. The last model had both stress and self-efficacy included as additional independent variables. Their findings from the second and third models were mentioned in this study as we only focus on self-efficacy. They showed that the effect of self-efficacy on credits and GPA was significant and positive. These findings suggest that self-efficacy has positive effect on academic achievement.

The availability of the scales to measure self-efficacy is still rare (Wang, Kim, Bong, & Ahn, 2013). One scale is the Motivated Strategies for Learning Questionnaire (MSLQ) that was developed by Pintrich, Smith, García, and McKeachie (1993). It consists of 81 items for six motivation subscales: intrinsic goal orientation, extrinsic goal orientation, task value, control beliefs about learning, self-efficacy for learning and performance and test anxiety; and nine learning strategy scales: rehearsal, elaboration, organisation, critical thinking, metacognitive self-regulation, time and study environment management, effort regulation, peer learning and help seeking. Chuang Wang (2004) indicated some flaws of some existing self-efficacy assessments, such as the one developed by Tremblay and Gardner (1995) that it combined rating of French use anxiety, French class anxiety and performance expectancy to reflect the self-efficacy in language of secondary school students. According to Wang's view, this is not the accurate way to measure self-efficacy. In the year 2004, Wang developed a questionnaire called Questionnaire of English Self-Efficacy (QESE) which is more appropriate to measure self-efficacy of learners in four context areas: listening,



speaking, reading and writing. As our study focuses on four skills of English self-efficacy on the learning achievement, the QESE questionnaire will be used.

The relationship between specific language English learning achievement and self-efficacy for each language skill were explored in many studies (e.g., Li & Wang, 2010; Wang & Kim, 2011; Woodrow, 2011). The example of the positive impact of listening self-efficacy and listening achievement is from Rahimi and Abedini (2009) exploring the role of self-efficacy on listening comprehension in listening test performance of 61 Iranian learners of English. The questionnaire on self-efficacy about listening comprehension was distributed to the subjects, then the subjects were tested with listening test. The findings from Pearson correlation and T-test revealed that self-efficacy in listening was significantly positively correlated to the listening test performance.

The study of Li and Wang (2010) showed evidence of the relationship between reading self-efficacy and the use of reading strategies. They adapted the reading self-efficacy part of QESE questionnaire to test the relationship between the reading self-efficacy and the use of reading strategies of Chinese learners of English. Their findings showed that reading self-efficacy was significantly positively correlated to the use of reading strategies – students with higher self-efficacy reported more use of reading strategies than those with low self-efficacy. Mills, Pajares, and Herron (2006) explored the role of self-efficacy and anxiety in relation to French reading and listening performance of French students. Their findings showed that reading self-efficacy in French had positive correlation to the reading proficiency while reading anxiety had no correlation. The findings of these two studies suggest the importance of the self-efficacy on the use of reading strategies.

For writing, the example is found from the study of Woodrow (2011) investigating the relationship between self-efficacy and anxiety in writing, and English writing performance of Chinese learners of English. The findings showed that while writing anxiety was not related to writing performance, self-efficacy was predictive of writing performance, and the students with high self-efficacy reported longer hours in weekly studying English and considered themselves as hard working learners suggesting the positive effect of self-efficacy in writing on the writing performance.

However, some studies (e.g., Huang & Chang, 1996) found that self-efficacy did not relate to the English learning achievement. For example, Shenghui C Huang and Chang (1996) examined the English self-efficacy and academic achievement. Their subjects were four students: one Korean, one Taiwanese and two Japanese. The data was collected via interview, observation, document collection (writing assignment), writing question list and the self-efficacy questionnaire for English reading and writing. Subjects were also asked to report overall TOEFL score, and the score of subparts: reading, listening and structure. The findings showed that some



subjects with high self-efficacy had high writing and reading achievement, but one subject with high self-efficacy had poor writing performance compared to the other subjects and her TOEFL score was the lowest among the four subjects.

Methodology

Subjects

The subjects of this study were 32 fourth-year students majoring in English. The reason why this group of subjects were selected was that they studied all modules in their BA programme – the survey of their English learning achievement therefore represents their overall English learning achievement towards BA in English programme, unlike the students in lower year of study. The evidence is shown in the study of Chansopha, Kitikanan, and Termjai (2010) that the mean score of speech act test of the fourth-year English major students was higher than that of the first-year students.

Questionnaire

The questionnaire used was an online questionnaire operated by SurveyMonkey Inc. It can be divided into two parts. The beginning of the questionnaire is personal information. In this part, subjects filled the code numbers which were given to them to maximise the confidentiality of their name on the online questionnaire. They also filled their GPA of the compulsory English module which is average GPA of all compulsory English modules they had learned in their BA programme. The second part is the survey of their English self-efficacy. To measure the degree of self-efficacy of the students, we used the questionnaire adapted from the questionnaire in the study of Wang et al. (2013). It is the Questionnaire of English Self-Efficacy (QESE) scale that was developed from interviews, observations and verbal protocols of Chinese learners of English in the United States. The aim of this questionnaire was to ask the subjects to make judgements on their capabilities to accomplish certain task with English as their foreign language. There are four aspects of self-efficacy: listening (item: 1, 3, 9, 10, 15, 22, 24, 27), speaking (item: 4, 6, 8, 17, 19, 20, 23, 30), reading (item: 2, 12, 16, 21, 25, 26, 29, 32) and writing (item: 5, 7, 11, 13, 14, 18, 28, 31). Each aspect was measured with eight questions. The answer of each question was based on a seven-point rating scale from 1 (I cannot do it at all) to 7 (I can do it very well). To prevent the awareness of the subjects towards each aspect that was explored, questions were randomly ordered. See Appendix for the items in the questionnaire.



Data collection

For the data collection, the URL of the online questionnaire was distributed to the subjects. This technique allows the research to collect data whilst maintaining the confidentiality of their subjects. The use of online questionnaire is also for the sake of the subjects' convenience as they could do it anywhere and anytime. To ensure subjects understand the content of the questionnaire, the message in the questionnaire was written in both Thai and English. The consistency of Thai and English content was checked by the back-translation (Brislin, 1970) with three lecturers of English producing the English message from the Thai message translated by one of the authors and their English messages were compared to the English message in the original questionnaire (Wang et al., 2013). Some of the Thai text was adjusted when the back translation of the experts was not consistent to the original message. The data collection process took five days, and this process took place in September 2016.

Data analysis

The first two aims of this study, i.e. to find out the extent of the English learning achievement of the fourth-year English major students and to explore the self-efficacy in each English aspect of these students were achieved with descriptive statistics. As each aspect of self-efficacy was measured with eight questions, the scores of eight questions for each self-efficacy aspect were combined and averaged to give the overall level. The results are shown in number, average, maximum, minimum and standard deviation and are separately presented according to the aims of the study. The results were calculated with a set of pivot tables in Microsoft Excel.

The final aim of this study was to measure the correlation between the English learning achievement and self-efficacy of the four-year English major students. This was achieved using inferential statistics. Before the data of the self-efficacy was analysed, to investigate the internal reliability, each aspect of English self-efficacy was checked with Cronbach's alpha in *R* (R Core Team, 2016) to ensure that the level of reliability of each aspect is high. Doornyi (2002) suggested the threshold of the level of internal consistency for L2 research that it should be higher than 0.7. The results showed the scores of internal consistency of each aspect as follows: 0.86 for listening, 0.78 for reading, 0.87 for speaking and 0.88 for writing. Therefore, none of the questions were removed.

To find out the relationship between the English learning achievement and each aspect of the self-efficacy, the Pearson product-moment correlation coefficient was calculated in *R* with *Rcmdr* package (Fox, 2005). Both variables: English learning achievement and each aspect of the self-efficacy are interval. The English learning achievement is the GPA of the compulsory English modules on a four-point scale ranging from 0.00-4.00 (0.00 means the lowest suggesting the failure in English learning and 4.00 means the highest point suggesting the success in English learning). The correlation coefficient is a measure of the association of two variables. As

suggested by Jackson (2010), the range of values for the correlation coefficient is -1.0 to 1.0, and the interpretation of this statistics is that if the value is positive, the movement of two variables are in the same direction. For example, when one variable increases, the other variable increases as well. If the value is negative, it means the two variables move in opposite direction. For example, when one variable increases as the other decreases. If the value is 0.00, it means there is no correlation between two variables. The interpretation of the correlation coefficient (r) is according to the strength of the correlation suggested by (Evans, 1996) as follows: 0.00-0.19 “very weak”, 0.20-0.39 “weak”, 0.40-0.59 “moderate”, 0.60-0.79 “strong”, 0.80-1.00 “very strong” The statistical significance of the results which is set below 0.05 revealed whether the correlations between these two factors were significant.

Results

The English learning achievement

From 32 subjects, it was found that the average GPA of the compulsory English module which represents the English learning achievement was 3.02 out of 4.00 ($SD=0.46$). Figure 1 shows the GPA of individual subjects that was the lowest at 2.07 and the highest at 3.76. This information suggests that at least all subjects reached half of the total GPA point and the number of subjects whose GPA was between 2.00-3.00 ($N=15$) was rather similar to those whose GPA was between 3.01-4.00 ($N=17$).

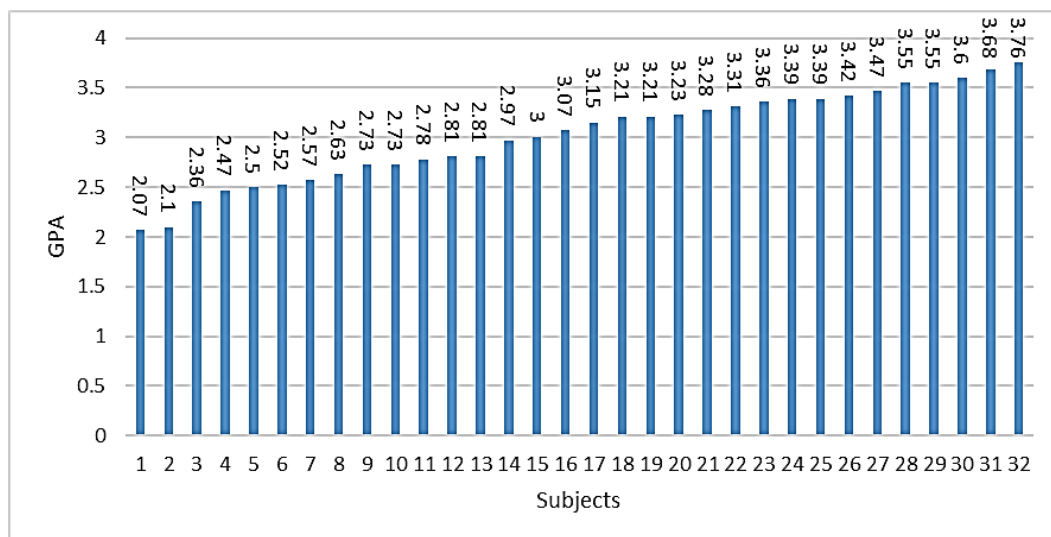


Figure 1: GPA of individual subjects

The English self-efficacy

For the English self-efficacy, the results are divided into four aspects according to the aspects of language: listening, speaking, reading and writing. The details of the score of the self-efficacy for each aspect is as follows. The average score of the listening is 5.26 out of 7 ($SD=0.69$). The maximum score for the self-efficacy for



English listening is 6.25 and its minimum score is 4.13. For English speaking, the average score is 5.37 ($SD = 0.75$). The highest score for the self-efficacy for English speaking is 6.50 whereas its lowest score is 3.63. For English reading, the average score is 5.32 ($SD = 0.56$). The maximum score for the self-efficacy for English speaking is 6.25 whereas its minimum score is 4.25. For English writing, the average score is 5.43 ($SD = 0.73$). The highest score for the self-efficacy for English speaking is 6.63 whereas its lowest score is 3.88. Figure 2 showed the average scores of all aspects of English self-efficacy that were investigated in this study which were not very different from one another.

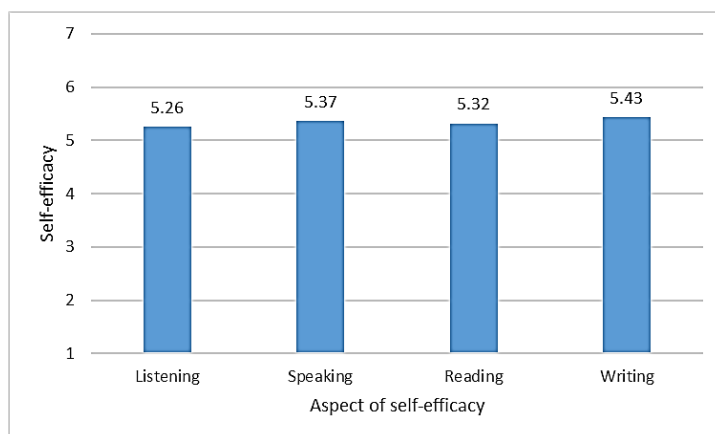


Figure 2. Average scores of each aspect of self-efficacy

The English learning achievement and self-efficacy

The results of the relationship between the English learning achievement and the self-efficacy were presented according to the aspects of language, i.e. listening, speaking, reading and writing. Regarding the relationship between English learning achievement and self-efficacy for English listening, the Pearson’s correlation showed that the relationship between these two variables was significantly strong in a positive way ($r = 0.62, N = 32, p < 0.05$). Figure 3 shows that the higher the self-efficacy for English listening, the higher GPA of the English compulsory modules was.

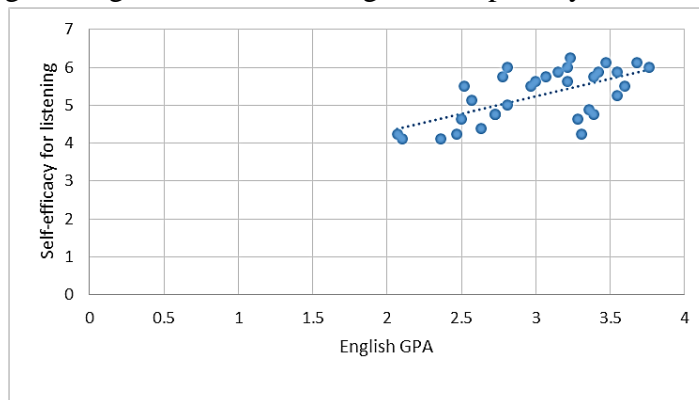


Figure 3. The relationship between the GPA and self-efficacy for English listening

Regarding the relationship between English learning achievement and self-efficacy for English speaking, the Pearson's correlation showed the significant strong positive correlation between these two factors ($r = 0.65$, $N = 32$, $p < 0.05$). Figure 4 shows that when the self-efficacy for English speaking was high, the GPA of the English compulsory modules was also high.

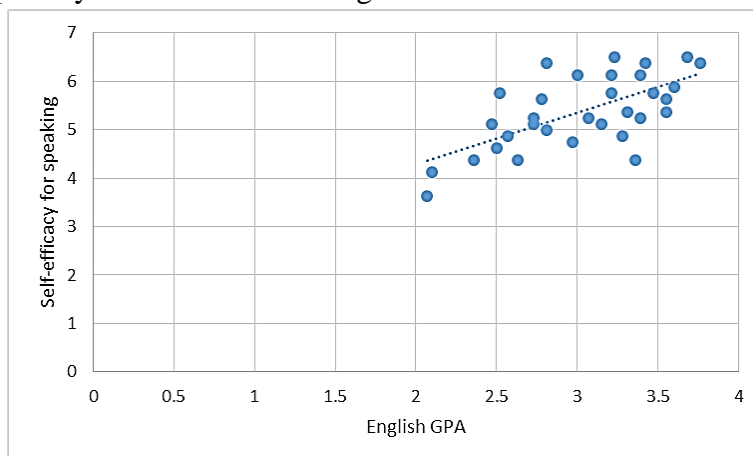


Figure 4. The relationship between the GPA and self-efficacy for English speaking

For the relationship between English learning achievement and self-efficacy for English reading, the Pearson's correlation showed that these two factors were significantly moderately positively correlated ($r = 0.58$, $N = 32$, $p < 0.05$). Figure 5 shows that when the self-efficacy for English reading was high, the GPA of the English compulsory modules was also high.

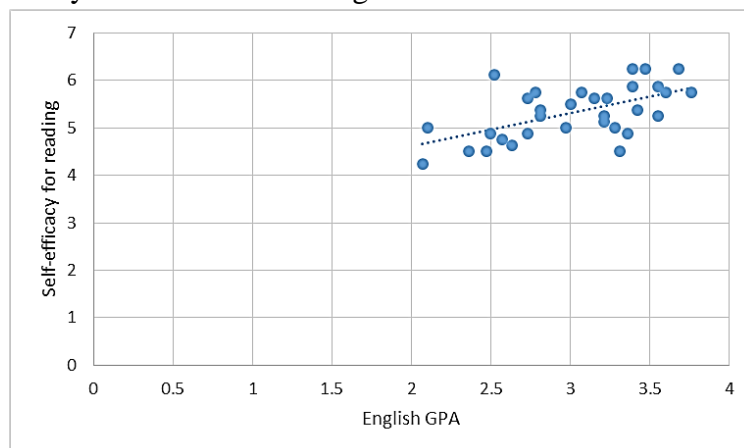


Figure 5. The relationship between the GPA and self-efficacy for English reading

For the relationship between English learning achievement and self-efficacy for English writing, the Pearson's correlation showed the significant strong positive correlation between these two factors ($r = 0.61$, $N = 32$, $p < 0.05$). Figure 6 shows that when the self-efficacy for English writing was high, the GPA of the English compulsory modules was also high.

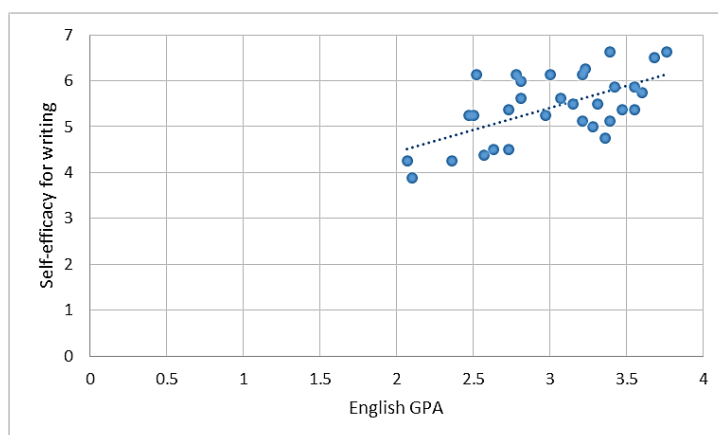


Figure 6: The relationship between the GPA and self-efficacy for English writing

In overall, the GPA had significantly positive correlation with the self-efficacy for all aspects of language. The correlation between the self-efficacy for reading and the GPA was less than those between the self-efficacy for other aspects of language and GPA.

Discussion

As there are three objectives in this study: 1) to investigate the learning achievement in English learning of the L2 Thai learners; 2) to examine the levels of English self-efficacy of the L2 Thai learners on four aspects: listening, speaking, reading and writing; and 3) to explore the relationship between the English self-efficacy in each aspect and the English learning achievement of the L2 Thai learners, the findings of each objective are discussed as follows.

The first finding is the answer to the first aim. It is the report of the GPA of 32 Thai students. It showed that around half of subjects had their GPAs higher than 50% of the total score, and the minimum GPA is 2.07 which is not low. This finding suggest that this group of subjects had sufficient English knowledge to graduate from the BA programme in English. The second finding is the answer to the second aim. It reports the scores of each aspect of self-efficacy. It was found that these L2 Thai learners had the amounts of self-efficacy for each language aspect not very different from one another. The self-efficacy of each aspect is relatively high, i.e. over five out of seven.

The last finding is the answer to the last aim. It presents the relationship between the self-efficacy of each English skill and the English learning achievement. This finding revealed that self-efficacy in each language aspects showed strong positive correlation to the overall English learning achievement. This finding of positive correlation between self-efficacy and English academic success is consistent with the findings in many studies (e.g., Li & Wang, 2010; Pintrich & De Groot, 1990; Woodrow, 2011; Zajacova et al., 2005). This finding suggests that developing one



aspect of self-efficacy is sufficient to improve the language English learning achievement. Hence L2 learners might not need to develop all aspects of self-efficacy at the same time, and teachers might encourage students in only one skill of language to improve the language performance in overall.

This last finding differs from previous studies that found no correlation between self-efficacy and English learning achievement (e.g., Shenghui C Huang & Chang, 1996). One reason why the negative effect is not found at all in this study might be because only one measurement is used, i.e. questionnaire. If many measurements were used like the one of Huang and Chang (1996), we might find some inconsistent findings of the relationship between the self-efficacy of some language aspects and the English learning achievement.

Direction for future research and implication of the study

For future research, three points are proposed. First, the same measurement of self-efficacy as in this study might be carried out with the other groups of L2 learners such as L2 learners with different linguistic backgrounds and the L2 Thai students who are not majoring in English to see the relation of the self-efficacy in each skill of language and the English learning achievement. Second, instead of using GPA as the measurement for the English learning achievement, other measurements might be used, such as the test that is designed to test specific skill of language or it might be the International tests, such as TOEFL, TOEIC and IELTS. Last, other factors besides self-efficacy might be added as we might find that it is not the self-efficacy alone that affects the English learning achievement – there might be some other factors of motivation, such as anxiety and ideal L2 self that are correlated with self-efficacy and affect the English learning success. Overall, the findings of this study suggest that developing only one aspect of the self-efficacy could lead to the overall improvement of the English learning achievement.

Acknowledgement

We wish to express our sincere gratitude to Mr. David Nithakorn for the language proof-reading for the writing in this article.

About the Authors

Patchanok Kitikanan holds a Ph.D. in Phonetics and Phonology from Newcastle University, United Kingdom. Currently she is working as a full-time English lecturer in the English Department, Humanities Faculty, Naresuan University, Thailand.

Pornpan Sasimonton is currently an Intensive English Program teacher at Saint Joseph Nakhonsawan School (SJN) in Nakhonsawan, Thailand. She obtained her Bachelor's degree of Arts in English major from the Faculty of Humanities at Naresuan University. Her fields of interest are English language teaching and the study of English as a foreign language.



References

- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.
- Bell, P. D. (2006). Can factors related to self-regulated learning and epistemological beliefs predict learning achievement in undergraduate asynchronous web-based courses? *Perspectives in health information management/AHIMA, American Health Information Management Association*, 3.
- Betts, J. R., & Morell, D. (1999). The determinants of undergraduate grade point average: The relative importance of family background, high school resources, and peer group effects. *Journal of Human Resources*, 34(2), 268-293.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185-216.
- Byrd, G., Garza, C., & Nieswiadomy, R. (1999). Predictors of successful completion of a baccalaureate nursing program. *Nurse Educator*, 24(6), 33-37.
- Chansopha, N., Kitikanan, P., & Termjai, M. (2010). Speech act perception towards interrogative forms: A case study of the 1st and 4th year English major students. *Journal of Humanities, Naresuan University*, 7, 27-38.
- Cheng, Y. s. (2002). Factors associated with foreign language writing anxiety. *Foreign Language Annals*, 35(6), 647-656.
- Doornyey, Z. (2002). *Questionnaires in second language research: Construction, administration, and processing*. Mahwah, NJ: Lawrence Erlbaum.
- Evans, J. D. (1996). *Straightforward statistics for the behavioral sciences*. Pacific Grove, CA: Brooks/Cole Publishing.
- Fox, J. (2005). The R commander: A basic statistics graphical user interface to R. *Journal of Statistical Software*, 14(9), 1-42.
- Huang, S. C., & Chang, S. F. (1996). Self-efficacy of English as a second language learner: An example of four learners. Language Education Department, School of Education Indiana University, Bloomington.
- Huang, S. C., Lloyd, P., & Mikulecky, L. (1999). ESL literacy self-efficacy: Developing a new scale. Taiwan (ERIC Document Reproduction Service No. 427-541).
- Jackson, S. L. (2010). *Statistics plain and simple*. CA: Wadsworth, Cengage Learning.
- Kitikanan, P. (2016). *L2 English fricative production by Thai learners*. PhD thesis, Newcastle University, Newcastle.
- Laeheem, J. S. K. (2012). *Factors affecting students academic achievement into probation status at prince of songkla university*. Paper presented at the The 3rd international conference on humanities and social sciences.
- Li, Y., & Wang, C. (2010). An empirical study of reading self-efficacy and the use of reading strategies in the Chinese EFL context. *Asian EFL Journal*, 12(2), 144-162.
- Light, R. L., Xu, M., & Mossop, J. (1987). English proficiency and academic performance of international students. *TESOL Quarterly*, 21(2), 251-261.
- Maleki, A., & Zangani, E. (2007). A survey on the relationship between English language proficiency and the academic achievement of Iranian EFL students. *Asian EFL Journal*, 9(1), 86-96.



- Mills, N. (2014). Self-efficacy in second language acquisition. In S. Mercer & M. Williams (Eds.), *Multiple perspectives on the self in SLA* (pp. 6-22). Bristol: Multilingual Matters.
- Mills, N., Pajares, F., & Herron, C. (2006). A reevaluation of the role of anxiety: Self-efficacy, anxiety, and their relation to reading and listening proficiency. *Foreign Language Annals*, 39(2), 276-295.
- Mills, N., Pajares, F., & Herron, C. (2007). Self-efficacy of college intermediate French students: Relation to achievement and motivation. *Language learning*, 57(3), 417-442.
- Mori, S. (2002). Redefining motivation to read in a foreign language. *Reading in a Foreign language*, 14(2), 91.
- Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of educational research*, 66(4), 543-578.
- Parsons, J. B. (1969). The relationship of academic achievement to physical fitness as measured by the twelve-minute walk-run test and the AAHPER youth fitness test.
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82(1), 33.
- Pintrich, P. R., Smith, D. A., García, T., & McKeachie, W. J. (1993). Reliability and predictive validity of the motivated strategies for learning questionnaire (MSLQ). *Educational and Psychological Measurement*, 53(3), 801-813.
- R Core Team. (2016). R: A language and environment for statistical computing. R Foundation for Statistical Computing: Vienna, Austria. Retrieved from <https://www.R-project.org/>.
- Rahimi, A., & Abedini, A. (2009). The interface between EFL learners' self-efficacy concerning listening comprehension and listening proficiency. *Novitas-Royal*, 3(1), 14-28.
- Schunk, D. H. (1989). Self-efficacy and achievement behaviors. *Educational psychology review*, 1(3), 173-208.
- Tremblay, P. F., & Gardner, R. C. (1995). Expanding the motivation construct in language learning. *The Modern Language Journal*, 79(4), 505-518.
- Wang, C. (2004). *Self-regulated learning strategies and self-efficacy beliefs of children learning English as a second language*. The Ohio State University.
- Wang, C., Kim, D.-H., Bong, M., & Ahn, H. S. (2013). Examining measurement properties of an English self-efficacy scale for English language learners in Korea. *International Journal of Educational Research*, 59, 24-34.
- Wang, C., & Kim, D. (2011). *Examination of the psychometric properties of a self-efficacy scale*. Paper presented at the Roundtable paper presentation at the Annual Conference of American Educational Research Association (AERA).
- Woodrow, L. (2011). College English writing affect: Self-efficacy and anxiety. *System*, 39(4), 510-522.
- Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-efficacy, stress, and academic success in college. *Research in higher education*, 46(6), 677-706.
- Zimmerman, B. J., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of educational Psychology*, 82(1), 51.



Appendix: List of items in questionnaire

1. Can you understand stories told in English?
คุณสามารถเข้าใจเรื่องราวต่าง ๆ ที่เล่าเป็นภาษาอังกฤษได้หรือไม่
2. Can you do homework alone when they include reading English texts?
คุณสามารถทำการบ้านด้วยตนเองโดยใช้ตำราภาษาอังกฤษได้หรือไม่
3. Can you understand American TV programs (in English)?
คุณสามารถเข้าใจรายการ โทรทัศน์ของอเมริกาที่เป็นภาษาอังกฤษได้หรือไม่
4. Can you describe your university to other people in English?
คุณอธิบายเกี่ยวกับมหาวิทยาลัยของคุณเป็นภาษาอังกฤษได้หรือไม่
5. Can you compose messages in English on the internet (face book, twitter, blogs, etc.)?
คุณสามารถเขียนข้อความเป็นภาษาอังกฤษบนอินเทอร์เน็ต (เฟสบุ๊ก, ทวิตเตอร์, บล็อก, ฯลฯ) ได้หรือไม่
6. Can you describe the way to the university from the place where you live in English?
คุณสามารถอธิบายเส้นทางไปมหาวิทยาลัยจากที่ ๆ คุณอยู่เป็นภาษาอังกฤษได้หรือไม่
7. Can you write English text?
คุณสามารถเขียนข้อความเป็นภาษาอังกฤษได้หรือไม่
8. Can you tell a story in English?
คุณสามารถเล่าเรื่องเป็นภาษาอังกฤษได้หรือไม่
9. Can you understand radio programs in English-speaking countries?
คุณสามารถเข้าใจรายการวิทยุในประเทศที่พูดภาษาอังกฤษได้หรือไม่
10. Can you understand English-language TV programs made in Thailand?
คุณสามารถเข้าใจรายการภาษาอังกฤษที่ผลิตในไทยได้หรือไม่
11. Can you leave a note for another student in English?
คุณสามารถทิ้งโน้ตไว้ให้นักเรียนคนอื่นอ่านเป็นภาษาอังกฤษได้หรือไม่
12. Can you guess the meaning of unknown words when you are reading an English text?
คุณสามารถเดาความหมายของคำศัพท์ที่ไม่รู้เมื่ออ่านตำราภาษาอังกฤษได้หรือไม่
13. Can you form new sentences from words you have just learnt?
คุณสามารถแต่งประโยคจากคำศัพท์ภาษาอังกฤษที่เพิ่งเรียนได้หรือไม่
14. Can you write e-mails in English?
คุณสามารถเขียนอีเมลเป็นภาษาอังกฤษได้หรือไม่
15. Can you understand English dialogs (audio recordings) about everyday school matters?
คุณสามารถเข้าใจบทสนทนาภาษาอังกฤษ (สื่อบันทึกเสียง) เกี่ยวกับวิชาทั่วไปได้หรือไม่
16. Can you understand messages or news items in English on the internet?
คุณสามารถเข้าใจข้อความหรือข่าวสารที่เป็นภาษาอังกฤษบนอินเทอร์เน็ตได้หรือไม่
17. Can you ask your teacher questions in English?
คุณสามารถถามคำถามอาจารย์เป็นภาษาอังกฤษได้หรือไม่
18. Can you produce English sentences with idiomatic phrases?
คุณสามารถสร้างประโยคภาษาอังกฤษโดยใช้สำนวนได้หรือไม่



19. Can you introduce your teacher (to someone else) in English?

คุณสามารถแนะนำอาจารย์ของคุณเป็นภาษาอังกฤษได้หรือไม่

20. Can you discuss subjects of general interest with your fellow students (in English)?

คุณสามารถแลกเปลี่ยนความเห็นเรื่องทั่ว ๆ ไปกับเพื่อนของคุณเป็นภาษาอังกฤษได้หรือไม่

21. Can you read short English narratives?

คุณสามารถอ่านเรื่องสั้นภาษาอังกฤษได้หรือไม่

22. Can you understand English films without subtitles?

คุณสามารถเข้าใจหนังภาษาอังกฤษโดยไม่มีคำบรรยายได้หรือไม่

23. Can you answer your teacher's questions in English?

คุณสามารถตอบคำถามอาจารย์เป็นภาษาอังกฤษได้หรือไม่

24. Can you understand English songs?

คุณสามารถเข้าใจเพลงที่เป็นภาษาอังกฤษได้หรือไม่

25. Can you read English-language newspapers?

คุณสามารถอ่านหนังสือพิมพ์ภาษาอังกฤษได้หรือไม่

26. Can you find out the meanings of new words using a monolingual dictionary?

คุณสามารถหาความหมายของคำศัพท์ที่ไม่รู้โดยใช้พจนานุกรมภาษาเดียว (อังกฤษ-อังกฤษ) ได้หรือไม่

27. Can you understand telephone numbers spoken in English?

คุณสามารถเข้าใจหมายเลขโทรศัพท์ที่พูดเป็นภาษาอังกฤษได้หรือไม่

28. Can you write diary entries in English?

คุณสามารถเขียนไดอารี่เป็นภาษาอังกฤษได้หรือไม่

29. Can you understand English articles on Thai culture?

คุณสามารถเข้าใจบทความที่เกี่ยวกับวัฒนธรรมไทยเป็นภาษาอังกฤษได้หรือไม่

30. Can you introduce yourself in English?

คุณสามารถแนะนำตนเองเป็นภาษาอังกฤษได้หรือไม่

31. Can you write an essay in about two pages about your lecturer in English?

คุณสามารถเขียนเรียงความประมาณสองหน้าเกี่ยวกับอาจารย์ผู้สอนเป็นภาษาอังกฤษได้หรือไม่

32. Can you understand new reading materials (e.g., news from the Time magazine)?

คุณสามารถเข้าใจสื่อการอ่านเป็นภาษาอังกฤษ (เช่น ข่าวจากนิตยสารไทม์) ได้หรือไม่