

**THE RELATIONSHIP OF ATTITUDES TOWARD RECREATIONAL
READING IN ENGLISH AND ATTITUDES TOWARD ACADEMIC
READING IN ENGLISH WITH READING ACHIEVEMENT OF
GRADES 3 TO 5 ENGLISH AS A FOREIGN LANGUAGE STUDENTS
AT AN INTERNATIONAL SCHOOL IN BANGKOK, THAILAND**

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Abstract: The purpose of this study was to determine the relationship among attitudes toward recreational reading in English and attitudes toward academic reading in English with reading achievement of Grades 3 to 5 English as a foreign language for students at an international school in Bangkok, Thailand. The Elementary Reading Attitude Survey (ERAS) was used to collect data from 24 Grade 3 students, 20 Grade 4 students, and 23 Grade 5 students during the first term of 2018-2019. Descriptive statistics such as means, standard deviations, and Pearson product-moment correlation coefficient were used to analyze the data. The findings showed that Grades 3 to 5 students at this school had a high level of attitudes toward both recreational reading in English and academic reading in English. Attitudes toward recreational reading in English were found to correlate significantly with attitudes toward academic reading in English, while reading achievement did not significantly correlate with students' reading attitudes in English. Recommendations for practice and future research are provided.

Keywords: Attitudes Toward Recreational Reading in English, Attitudes Toward Academic Reading in English, Reading Achievement, Elementary Reading Attitude Survey (ERAS)

Introduction

Students nowadays are mostly knowledgeable users of technology who often spend their time in browsing social media platforms (Power, 2011). However, based on the researcher's personal experience, the availability of various social media applications may limit students from developing their reading skills. According to Baron (2016), print is easier on the eyes, students achieved better grades in printed exams, and it provides better reading concentration. Keskin (2013) highlighted that reading attitude is an important predictor of academic achievement. Smith (1990) inferred that attitude, particularly in

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reading, is a condition associated with feelings and emotions which makes reading more plausible. When reading skill is developed, cognitive skills are also improved (Adams, 1990). Moreover, Bastug (2014) mentioned that reading skills contribute to an individual's success. With this, enhancing reading culture must be supported by home, school, and community in order to supervise the meaningful usage of electronic devices to ensure the presence of positive reading attitudes.

Fredrickson (2016) concluded that learners demonstrated poor academic achievement in schools in Thailand as evidenced by various international rankings of the 2016 Programme for International Student Assessment (PISA), the 2011 Ordinary National Educational Test (O-Net) (National Institute of Educational Testing Service, 2018), 2017 English Proficiency Index (Education First, 2018), and World Economic Forum (WEF) Global Competitiveness Report 2016-2017 (Schwab, 2016). The first international school in Thailand was founded in 1957 and other international schools were also established which have become an alternative for learners to be successful. However, Thai students were restricted in attending these international schools which interfered with their opportunity to catch up with the world and fluently communicate in English (Darasawang, 2007). Despite the reform in the Thai educational system to cope with globalization, performance in reading continues to be relatively low (Darasawang 2007). Therefore, the researcher decided to investigate the relationship among attitudes toward recreational reading in English and attitudes toward academic reading in English with reading achievement of Grades 3 to 5 English as a foreign language students' at an international school in Bangkok, Thailand.

Research Objectives

The following are the research objectives that guided this study.

1. To determine the level of attitudes toward recreational reading in English of Grades 3 to 5 English as a foreign language student at an international school in Bangkok, Thailand.
2. To determine the level of attitudes toward academic reading in English of Grades 3 to 5 English as a foreign language student at an international school in Bangkok, Thailand.
3. To determine the level of reading achievement of Grades 3 to 5 English as a foreign language student at an international school in Bangkok, Thailand.
4. To determine if there was a significant relationship among attitudes toward recreational reading in English and attitudes toward academic reading in English with reading achievement of Grades 3 to 5 English as a foreign language students' at an international school in Bangkok, Thailand.

Theoretical Framework

This research was based on three theories: Bandura’s Social Cognitive Theory (1989) focusing on triadic reciprocal determinism, the Mathewson reading model (1994), and the McKenna reading model (1994).

Triadic Reciprocal Determinism. This model is part of Bandura’s Social Cognitive Theory of Bandura (1989). The reciprocal causation model has three factors which are environment, personal (individual cognition and affect), and behavior. They work as interacting determinants which influence each other.

Mathewson Model. This model is also known as the Mathewson Model of Attitude Influence Upon Reading and Learning to Read (1994). This theory suggests that an individual’s intention to read is influenced by his or her attitude. The theory advances a tripartite view of attitude toward reading, where attitude encompasses feelings about reading, readiness to read and beliefs about reading.

McKenna Model. This model includes three factors that influence attitude toward reading which are beliefs about the outcomes, beliefs about the expectations of others, and the outcomes of specific incidents. The initial decision to read directs the desirability to continue to read.

Conceptual Framework

Figure 1 shows the conceptual framework of this study, describing graphically the research site, as well as the research variables addressed in this study. Students’ attitudes toward recreational reading in English and attitudes toward academic reading in English serve as the independent variables, and students’ reading achievement serves as the dependent variable for the present study.

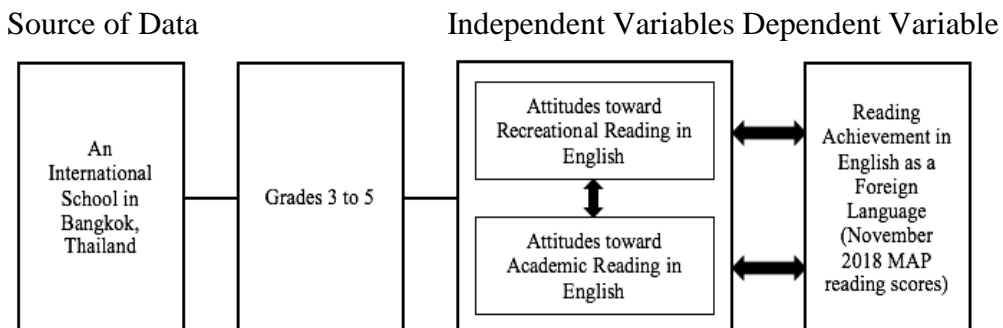


Figure 1. Conceptual framework

Literature Review

Learning Theories

As stated by Bandura (1989), human behavior is usually referred to as unidirectional, i.e., operating in one direction only either by internal dispositions or influenced externally by the environment. The triadic reciprocal determinism model derived from social cognitive theory identified three factors that work as interacting determinants which influence human behavior at different intensities over a period of time. These are behavior, personal (individual) factors, and environment (Bandura, 1989).

Reading Attitude Theories

McKenna, Kear and Ellsworth (1995) mentioned that attitude plays an important role in enhancing reading skills for two main reasons: (1) a readers' attitudes (cognitive/personal factors) may affect their reading ability in the form of engagement and practice, and (2) individuals who are able to read (behavioral factor) may develop negative reading attitudes because of the available options. Fishbein and Ajzen (1975) stated that attitude is an individual's acquired predisposition whether to react in a positive or negative way to a certain object. Ward (2013) stated that attitudes (cognitive/personal factor) influence behavior (behavioral factor) and reading is considered to be a behavior. So, if students like to read (cognitive/personal factor), then, they will positively behave (behavioral factor) by improving their reading skills (environmental factor). Additionally, Bastug (2014) mentioned the idea of the Matthew Effect which was derived from the perspective that the poor get poorer while the rich get richer. Accordingly, the more a student reads, the more they learn. On the other hand, the less they read, the less they learn. The Mathewson model suggested that revision of cornerstone concepts (personal values, goals, and self-concepts) based upon reading will be helpful to build another path toward acquiring positive attitudes toward reading (McKenna et al., 1995). The McKenna model proposes that, over a period of time, a person's reading attitude will improve depending on complex factors such as intention to read, subjective norms, and reading attitude which also stimulate each other.

Measuring Reading Attitudes

The Elementary Reading Attitudes Survey (ERAS) was developed by McKenna and Kear (1990) and has 20 statements using the cartoon character Garfield depicting different emotions. According to McKenna and Kear (1990), this pictorial format has natural appeal for children and can be easily recognized by the intended grade levels which are from Grades 1 to 6. The reliability of ERAS was attained through measuring its internal consistency and it was found that the research instruments' Cronbach's alpha coefficients

ranged from .74 to .89. This result then suggests that ERAS possesses adequate levels of internal consistency (Kazelskis et al., 2004).

Measuring Reading Achievement

The Measures of Academic Progress (MAP) test is an adaptive computer-based assessment tool produced by the Northwest Evaluation Association (NWEA) in 2000. It is the largest standardized assessment of its type in the United States. Todtfield and Weakley (2013), Alexander (2016), Hanford (2016), Pace and Mellard (2016), Volpe (2016), and Barber (2017) used the MAP test scores to measure students' achievement in the U.S. The NWEA (2011) reported that the Cronbach's alpha of the MAP test's reliability in reading were in the range of .93 to .96, which reflects a high level of reliability for the intended population.

Methodology/Procedures

Population and Sample

The total number of students in this research was 69, 25 students in Grade 3, 21 students in Grade 4, and 23 students in Grade 5 at an international school in Bangkok, Thailand during the 1st semester of academic year 2018-2019. All the students (69 students) from Grades 3 to 5 were considered as the sample in this study. However, one Grade 4 student was absent, and one Grade 3 student had not taken the MAP test at the time when the data was collected. Thus, the final sample of this study was 67 Grades 3 to 5 students.

Research Instruments

The research instruments used in this study were the Elementary Reading Attitude Survey (ERAS) and the students' November 2018 Measures of Academic Progress (MAP) reading scores. First, the Elementary Reading Attitude Survey (ERAS) which was developed by McKenna and Kear (1990) consisted of 20 items that measured the students' level of recreational reading attitudes in English and academic reading attitudes in English. Each item has a concise statement on how students feel about reading followed by images of Garfield in four poses illustrating different emotional states from very positive to very negative. The questionnaire used a 4-point Likert-type scale with 1 (*very upset Garfield*) representing the lowest score and 4 (*very happy Garfield*) as the highest score.

A summary of the score interpretation for ERAS recreational reading subscale, ERAS academic reading subscale, and ERAS total score is shown in Table 1 below.

Table 1. *Score Interpretation for ERAS Recreational Reading Subscale, ERAS Academic Reading Subscale, and ERAS Total Score*

Subscales	Very low	Low	High	Very high
Recreational reading	0-10	11-20	21-30	31-40
Academic reading	0-10	11-20	21-30	31-40
Total score	0-20	21-40	41-60	61-80

Second, the Measures of Academic Progress (MAP) is the largest adaptive computerized assessment produced by Northwest Evaluation Association (NWEA) in 2000 in the United States. Every August, November and May, Grades 3 to 10 students of the target school in Bangkok, Thailand take the Measures of Academic Progress (MAP) assessment to measure students' academic growth and achievement over time in the areas of reading, math, and science. The November 2018 MAP scores in reading of Grades 3 to 5 English as a foreign language student were used to determine their level of reading achievement at the target school.

A summary of the interpretation of the Grades 3 to 5 students' MAP test reading scores is shown in Table 2.

Table 2. *Interpretation of the MAP Reading Scores*

Grade levels	Below grade level	On grade level	Above grade level
Grade 3	Below 188	188-198	Above 198
Grade 4	Below 198	198-205	Above 205
Grade 5	Below 205	205-211	Above 211

The quantitative data collected was analyzed by using descriptive statistics (means and standard deviations) and correlational analysis (Pearson's product-moment correlation coefficient) in order to address the research objectives and hypothesis of this study.

Research Findings

The findings of the study are presented according to the research objectives.

Research Objective 1

Table 3 presents the Grades 3 to 5 English as a foreign language students' mean scores and standard deviations for the recreational reading attitudes in English subscale.

Table 3. *Grades 3 to 5 English as a Foreign Language Students' Mean Scores and Standard Deviations for the Recreational Reading Attitude in English Subscale (n=67)*

Recreational reading attitude	<i>M</i>	<i>SD</i>	Interpretation
Grade 3	33.85	3.85	Very high
Grade 4	26.90	6.19	High
Grade 5	29.78	5.45	High
Overall	30.21	5.76	High

From Table 3 it can be seen that Grades 3 to 5 English as a foreign language students' overall mean score for recreational reading attitudes in English subscale was 30.21, which was interpreted as high (see Table 1).

Research Objective 2

Table 4 presents the Grades 3 to 5 English as a foreign language students' mean scores and standard deviations for the academic reading attitudes in English subscale.

Table 4. *Grades 3 to 5 English as a Foreign Language Students' Mean Scores and Standard Deviations for the Academic Reading Attitude in English Subscale (n=67)*

Academic reading attitude	<i>M</i>	<i>SD</i>	Interpretation
Grade 3	32.38	3.91	Very high
Grade 4	26.70	5.89	High
Grade 5	28.74	4.71	High
Overall	29.43	5.33	High

From Table 4 it can be seen that Grades 3 to 5 English as a foreign language students' overall mean score for academic reading attitudes in English subscale was 29.43, which was interpreted as high (see Table 1).

Research Objective 3

Table 5 presents the Grades 3 to 5 English as a foreign language students' mean scores and standard deviations for reading achievement based on the MAP reading scores.

Table 5. *Grades 3 to 5 English as a Foreign Language Students' Mean Scores and Standard Deviations for Reading Achievement Based on MAP Reading Scores (n=67)*

Grade	<i>N</i>	<i>M</i>	<i>SD</i>	Interpretation
Grade 3	24	183.38	12.68	Below grade level
Grade 4	20	194.85	16.35	Below grade level
Grade 5	23	191.43	16.22	Below grade level
Overall	67	189.57	15.63	

As seen in Table 5, the mean scores of Grade 3, Grade 4, and Grade 5 reading achievement were 183.38, 194.85, and 191.43 respectively. They were all interpreted as below grade level (see Table 2).

Research Objective 4

Table 6 presents the bivariate correlations among the three variables: Grades 3 to 5 English as a foreign language students' attitudes toward recreational reading in English, attitudes toward academic reading in English, and their reading achievement.

Table 6. *Bivariate Correlations Among Grades 3 to 5 English as a Foreign Language Students' Recreational Reading Attitude in English, Academic Reading Attitude in English, and Reading Achievement (n=67)*

Variables	1	2	3
1. Recreational reading attitude	-		
2. Academic reading attitude	.75* ($<.001$)	-	
3. Reading achievement	.17 ($<.17$)	.07 ($<.59$)	-

Note. *denotes a statistically significant relationship (statistical significance level set at $p = .05$, two-tailed). p -values appear within parenthesis below the correlation coefficients.

The bivariate correlation results of Grades 3 to 5 English as a foreign language students' data revealed that there was a positive, strong, significant relationship between Grades 3 to 5 English as a foreign language students' attitudes toward recreational reading in English and attitudes toward academic reading in English ($r = .75$, $p < .001$) at a significance level of .05 (Khamis, 2008). However, there was no statistically significant relationship between Grades 3 to 5 English as a foreign language students' attitudes toward recreational reading in English and attitudes toward academic reading in English with their reading achievement. Since one of the independent

variables did not correlate significantly with the dependent variable, further correlational analysis was not needed.

Discussion

Attitudes toward Recreational Reading in English

The findings of this study showed that the levels of attitudes toward recreational reading in English of Grades 3 to 5 English as a foreign language students' were overall high. This result was in line with Lwin and Lynch's (2015) research which found that participants in their study had positive attitudes toward reading for pleasure in English as supported by three particular school activities: (1) a classroom library with about 100 books, (2) new book orders every quarter that offered more reading choices to students, and (3) daily time allocation for reading for pleasure. Additionally, this result was also in line with Ward's (2013) research which highlighted the importance of students' attitudes toward reading and the importance of school in developing the students' love for learning and recommended that classroom time allocation for reading activity and reading resources was essential in improving the students' reading attitudes. The researcher believes that if students are provided with a wide range of books that are interesting to them, then they will be more likely to develop positive reading attitudes. The target school in the current study gave emphasis on their reading program by providing a library with books in English. Aside from periodicals such as magazines, newspapers and computer resources, their school library had a wide variety of fiction and nonfiction books. Therefore, this study found that students at the target international school possessed positive attitudes toward recreational reading in English which were supported by the school library's comprehensive book selection available for their students.

Attitudes toward Academic Reading in English

The findings of this study showed that the level of attitudes toward academic reading in English of Grades 3 to 5 English as a foreign language students' were overall also high. To support the target school's focus on the reading program, the school implemented reading interventions and reading camps in English for the students. Homeroom teachers at the target international school implemented student reading activities by using the big books for shared reading program and every class had scheduled library time one period per week. Additional support in reading interventions by teachers was also provided to the students. Moreover, the school also organized a professional development session conducted by an outside expert for primary level teachers with the theme "Teaching Reading Strategies: Thinking About How Your Students Read." Hence, this research found that students at the target international school possessed positive attitudes toward academic reading in

English which were supported by the school's implementation of reading interventions, activities, and teacher professional development programs.

With regard to the relationship between students' attitudes toward recreational reading in English and attitudes toward academic reading in English, the finding of this study showed that there was a strong, positive significant relationship between Grades 3 to 5 English as a foreign language students' attitudes toward recreational reading in English and attitudes toward academic reading in English. This finding was in line with the large-scale study conducted by McKenna and Kear (1990). It was found that the two reading subscales were significantly correlated, and similar reading attitude scores were produced. Students at the target international school had strong desire to read and possessed positive attitudes toward reading in English both for recreational and academic purposes. This favorable outcome might have been due to the school's reading interventions, activities, and programs implemented by the teachers that inspired their students to read more.

Reading Achievement in the November 2018 MAP Test

The findings of this study showed that the level of reading achievement of Grades 3 to 5 English as a foreign language students' were overall below grade level. This finding was based on the students' November 2018 MAP reading scores according to the interpretation of MAP reading scores of NWEA (Northwest Evaluation Association, 2015). Students at the target international school started taking the MAP standardized test only one year prior to this research study and so it was relatively new to them. Students were still in the process of familiarizing themselves with the MAP test. Furthermore, other factors that might have influenced their reading achievement could have been students' test fatigue since the MAP test measures not only achievement in reading, but also in other aspects of language as well as math and science. The areas being evaluated in the MAP reading test were key ideas and details of literary and informational text, acquisition and use of vocabulary, and language, craft and structure of literary and informational text. The students take the MAP test three times per year every August, November and May.

The low November 2018 MAP reading scores posed several questions whether the students were knowledgeable and driven to provide precise answers that will indicate correct measures of their reading performance particularly in the administration and comprehension of the MAP standardized test.

The researcher believes that perhaps the students at the target international school in Bangkok, Thailand were not familiar with the test design and they were not prepared on what to expect during the MAP test which was relatively new to them. With this, students should have been equipped with some ideas

on the appearance of the test - on how it would look, format and similar essential elements of test presentation. Also, some practice or MAP warm-up testing, utilizing similarly formatted and presented items could have been administered to the students prior to the official MAP test. Although international schools use MAP test to evaluate their students' performance, it was developed for American schools with native English speaking students (Northwest Evaluation Association, 2011). In international schools, students are from diverse educational backgrounds and environmental cultures and they use English as their second or foreign language. With this, students at the target international school who were mostly not all native English speakers, could have encountered some issues with the language barrier and with the processing of the test contents and contexts. Thus, teachers need to adjust their MAP test instructions in a more comprehensive, effective, and appropriate manner according to the students' levels of knowledge and skills in English.

With regard to the relationship between students' reading attitudes in English with their reading achievement, the findings of this study showed that there was no statistically significant relationship among attitudes toward recreational reading in English and attitudes toward academic reading in English with reading achievement of Grades 3 to 5 English as a foreign language students' at an international school in Bangkok, Thailand. This finding was in contrast with the research of Bastug (2014), Chotitham and Wongwanich (2014), Lungley and Lynch (2017), Lwin and Lynch (2015), and Tunde-Awe (2014) which all found positive significant relationships between students' reading attitudes and academic achievement.

There were some limitations which may contribute to an explanation as to why this current research found no significant correlation among the independent variables (recreational and academic reading attitudes) and the dependent variable (reading achievement). The first factor that influenced the result of this study was the small sample size. The number of students that participated in this study was only 67 Grades 3 to 5 English as a foreign language students' at an international school in Bangkok, Thailand. This limitation may have had an impact on why the result of this study reflected that there was no significant relationship between the variables since robust correlation requires larger sample sizes.

The second factor that might have influenced the outcome of this study had to do with the data collection process. When the research instrument was given to the students, some challenges arose such as: (1) instructions on how to answer the survey questionnaire were not clearly explained to the students due to lack of time, (2) students did not have enough time to answer the survey

questionnaire due to time constraint, (3) students might not have clearly understood all the items in the survey questionnaire since they were rushed to complete them, and (4) students might not have been able to give the appropriate answers that best described how they feel about reading and their attitudes toward reading in English. The fact that the researcher did not have sufficient time to give the students complete and clear directions for completing the questionnaire and also not sufficient time for them to complete the questionnaire were not issues under the control of the researcher.

The third factor that might have influenced the outcome of this study was the validity of MAP test itself. Shaw (2013) stated in *The Seattle Times* that educators in the United States have engaged in debate on the validity of the MAP test and noted that many research and testing directors were dissatisfied with the standardized test. The latest design of the MAP test, which was supposed to be more useful, was boycotted by teachers in Seattle because they believed that it was not an effective, valid measure of student achievement. Some school districts preferred assessments that were in line with their local school curriculum and classroom instruction. It was noted that the students should be taught with learning content that they are ready for and many students from these school districts in Seattle did not take the MAP test seriously. Moreover, Conceptual Math (2019) presented an analysis on the accuracy and precision of the MAP test. It was stated that the design of the MAP test was based on philosophical errors or scientifically inaccurate assumptions which could produce false outcomes. For the accuracy problems, the question was whether the MAP test actually measured what it intended to measure. It was mentioned that multiple choice tests and scores in MAP type standardized tests cannot measure the real success of the students. The students' MAP test scores did not match with the students' performance based on the teachers' observations of the students' performance in the classroom and the data suggested that the MAP test was not able to assess the specific skills of the students that must be addressed. Such concerns over the validity of the MAP test itself, along with the other factors discussed above, could possibly shed some light on the lack of a significant relationship between the independent and dependent variables found in the current study. It also raises an important issue regarding the use of standardized tests that is beyond the brief of this study but will be addressed below in the recommendations section below.

Although the researcher did not achieve significant correlation among the research variables, the researcher still believes that the students' reading attitudes play an important role in their reading achievement. Furthermore, despite the limitations of this study, the researcher hopes that this will make a

contribution in future research that will correlate reading attitudes and reading achievement.

Recommendations

The recommendations of this study will be directed to the following groups.

Recommendations for Students

It is suggested to always practice reading both for recreational and academic purposes. Students need to discover reading materials that will make reading more interesting and enjoyable to them, allocate time for reading every day to ensure that the continuous habit of reading is taking place both at school and at home, and participate in school reading programs which will support enhancement of reading skills and performance.

Recommendations for Teachers

It is important for teachers to formulate effective teaching approaches to increase students' reading levels and to promote students' positive reading attitudes. They can consider incorporating exciting classroom teaching strategies into their lessons, practicing both recreational and academic reading as part of guided reading in early years, conducting school library visits with their students more often, allocating reading time at home for at least 30 minutes daily with log sheet signed by parents for monitoring purposes, and working together with the school administrators and policy-makers in organizing appropriate professional development designing and administering both valid formative and summative reading assessments.

Recommendations for School Administrators and Policy-Makers

It is important that they cultivate a school with a healthy reading environment by continuously investing in new instructional resources and a reading facility filled with relevant and interesting reading materials. They can consider modifying the curriculum, school policies, and facilities and planning and implementing more professional development for teachers on teaching reading and the MAP test and other standardized tests.

Recommendations for Future Researchers

It is recommended that future researchers utilize larger sample sizes to investigate the relationship between students' reading attitudes in English and their reading achievement, separate each grade levels, conduct a longitudinal study, conduct a mixed research design, replicate this study to schools that used the students' MAP test scores for a longer period of time, and ensure that they control all aspects of the data collection process.

REFERENCES

- Adams, M. (1990). *Beginning to read: Thinking and learning about print*.
- Alexander, E. (2016). *Teacher evaluation: The relationship between performance evaluation ratings and student achievement* (Unpublished doctoral dissertation). Liberty University, Virginia, United States of America.
- Bandura, A. (1989). Social Cognitive Theory. In R. Vasta (Ed.), *Annals of child development* (pp. 1-60).
- Barber, T. D. (2017). *The relationship between MAP assessment and PASS results of eighth grade* (Unpublished doctoral dissertation). Walden University, Minnesota, United States of America.
- Baron, M. (2016). Why digital reading is no substitute for print. *The New Republic*.
- Bastug, M. (2014). The structural relationship of reading attitude, reading comprehension and academic achievement. *International Journal of Social Science and Education*, 4(4), 931-946.
- Chotitham, S. & Wongwanich S. (2014). The reading attitude measurement for enhancing elementary school students' achievement. *Procedia Social and Behavioral Sciences*, 116, 3213-3217.
- Darasawang, P. (2007). English language teaching and education in Thailand: A decade of change. In D. Prescott (Ed.), *English in Southeast Asia: Varieties, literacies and literatures* (pp. 187-204).
- Education First. (2018). English proficiency index. *Education First*.
- Fishbein, M. & Ajzen, I. (1975). Introduction. In *Belief, attitude, intention, and behavior: an introduction to theory and research 1*, 1-16.
- Fredrickson, T. (2016, December). Pisa test rankings put Thai students near bottom of Asia. *Bangkok Post*.
- Hanford, J. (2016). A correlational study: The relationship between school climate, connectedness, and reading achievement of elementary school students [Abstract]. *Institute of Education Sciences*, 223. Abstract retrieved from Abstracts in ProQuest LLC Dissertation. (Accession Number ED571064)
- Kazelskis, R., Thames, D., Reeves, C., Flynn, R., Taylor, L., Beard, L., & Turnbo, D. (2005). Reliability and stability of elementary reading attitude survey (ERAS) scores across gender, race, and grade level. *The Professional Educator*, 27(1 & 2), 29-37.
- Khamis, H. (2008). Measures of association how to choose? *Journal of Diagnostic Medical Sonography*, 24(3), 155-162.
- Keskin, H. K. (2013). Impacts of reading metacognitive strategies and reading attitudes on school success. *International Journal of Academic Research*, 5(5), 312-317.

- Lungley, M. & Lynch, R. (2017). The relationship between grades 8-12 students' motivation for self-selected reading in English and academic achievement at Bangkok Christian International School, Thailand. *Scholar Human Sciences Theses*, 9(2), 203-217.
- Lwin, Z. & Lynch, R. (2015). A study of elementary level English as a foreign language students' attitudes towards reading for pleasure in English at Bangkok Christian International School, Thailand. *Scholar Human Sciences Theses*, 7(2), 39-56.
- Mathewson, G. (1994). Model of attitude influence upon reading and learning to read [Abstract]. *American Psychological Association*, 1131-1161.
- McKenna, M. & Kear, D. (1990). Measuring attitude toward reading: A new tool for teachers. In *The reading teacher*, 43(9), 626-639.
- McKenna, M., Kear, D., & Ellsworth, R. (1995). Children's attitudes toward reading: A national survey. *Reading Research Quarterly*, 30(4), 934-956.
- Northwest Evaluation Association. (2011). Technical manual for measures of academic progress (MAP) and measures of academic progress for primary grades (MPG) [PDF file].
- Northwest Evaluation Association. (2015). 2015 NWEA measures of academic progress normative data [PDF file].
- Northwest Evaluation Association. (2017). NWEA A parent's guide to MAP [PDF file].
- National Institute of Educational Testing Service. (2018). O-NET: ordinary national education test.
- Organization for Economic Cooperation and Development. (2018). Programme for international student assessment. *OECD*.
- Pace, J. & Mellard, D. (2016). Reading achievement and reading efficacy changes for middle school students with disabilities through blended learning instruction. *Journal of Special Education Technology*, 31(3), 156-169.
- Power, J. B. (2011). Effects of study activities on academic achievement in university students in Thailand. *Manusya: Journal of Humanities Regular*, 14(1), 1-22.
- Schwab, K. (2016). The global competitiveness report 2016-2017 [PDF file]. Retrieved from http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf
- Shaw, L. (2013). Educators debate validity of MAP testing. *The Seattle Times*.

- Smith, M. C. (1990). A longitudinal investigation of reading attitude development from childhood to adulthood. *The Journal of Educational Research*, 83, 211-219.
- Tunde-Awe, B. M. (June 2014). Relationship between reading attitudes and reading comprehension performance of secondary school students in Kwara State, Nigeria. *American Research Institute for Policy Development*, 3(2), 203-215.
- Todtfeld, D. & Weakley, W. (June 2014). *The impact of instructional reading technology programs on student reading achievement* (Unpublished master's thesis). Northwest Missouri State University, Missouri, United States of America.
- Volpe, F. (2014). *The role of academic achievement motivation in predicting performance on the northwest evaluation association's measure of academic progress. Mindsets: Incremental vs. entity beliefs about intelligence* (Unpublished doctoral dissertation). University of New Mexico, New Mexico, United States of America.
- Ward, S. L. (2013). *An examination of a relationship between reading attitudes and reading achievement for a group of sixth grade students* (Unpublished doctoral dissertation). Mississippi State University, Mississippi, United States of America.