



ความรู้เนื้อหาผนวกวิธีสอนโฟนิกส์ของครูประถมศึกษาในประเทศไทย The Pedagogical Content Knowledge in Phonics of Elementary Phonics Teachers in Thailand

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บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาความรู้เนื้อหาผนวกวิธีสอนโฟนิกส์ของครูสอนโฟนิกส์ระดับชั้นประถมศึกษาในประเทศไทย โดยกลุ่มตัวอย่างที่ใช้ในการศึกษาคือครูสอนโฟนิกส์ระดับประถมศึกษาทั้งชาวไทยและชาวต่างชาติที่เป็นเจ้าของภาษาอังกฤษ จำนวน 33 คน จากโรงเรียนระดับประถมศึกษา จำนวน 12 โรงเรียน โดยผ่านการเลือกแบบเจาะจง เครื่องมือที่ใช้ในการเก็บข้อมูลได้แก่แบบสอบถามการสอนโฟนิกส์ สถิติที่ใช้วิเคราะห์ข้อมูลจากแบบสอบถามคือ ค่าร้อยละ (%) ค่าเฉลี่ยเลขคณิต (M) ค่าส่วนเบี่ยงเบนมาตรฐาน (SD) และการวิเคราะห์ข้อมูลเนื้อหา ผลการวิจัยพบว่า 1) คะแนนเฉลี่ยด้านความรู้เกี่ยวกับโฟนิกส์ของครูคือ 3.20 ซึ่งอยู่ในเกณฑ์ดี 2) คะแนนเฉลี่ยด้านความรู้เกี่ยวกับวิธีการโฟนิกส์ของครูคือ 3.09 ซึ่งอยู่ในเกณฑ์ดี และ 3) คะแนนเฉลี่ยด้านความรู้เกี่ยวกับนักเรียนของครูคือ 2.99 ซึ่งอยู่ในเกณฑ์ดี นอกจากนี้ผลการวิจัยพบอีกว่าจากผลการศึกษาการรับรู้ตนเองต่อความรู้เนื้อหาผนวกวิธีสอนโฟนิกส์ของครูทั้งสามด้านนั้น ด้านความรู้เกี่ยวกับนักเรียนเป็นด้านที่มีคะแนนเฉลี่ยน้อยที่สุด ทั้งนี้นักวิชาการและครูควรแก้ไขและพัฒนาความรู้ของครูสอนโฟนิกส์เกี่ยวกับนักเรียนให้มากขึ้น เพื่อพัฒนาการสอนให้มีคุณภาพดียิ่งขึ้น

คำสำคัญ : ความรู้เนื้อหาผนวกวิธีสอน, โฟนิกส์, การสอน, การสอนภาษาอังกฤษ

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Abstract

The purpose of this study was to investigate the pedagogical content knowledge (PCK) in phonics of elementary school teachers. Participants involved were 33 Thai and Native-speaking phonics teachers from 12 elementary schools in Bangkok which they were purposively selected. The research instrument used was The Phonics Teaching Questionnaire. The quantitative data was analysed using percentage, descriptive statistics of the mean (*M*), and standard deviation (*SD*), whereas qualitative data was analysed using content analysis. Findings from the questionnaire revealed that the overall mean scores of phonics teachers' knowledge of phonics, knowledge of pedagogies, and knowledge of students were all at a 'good' level according to the criteria used, resulting in 3.20, 3.09 and 2.99 respectively. The finding showed that out of these three aspects of PCK in phonics teaching, phonics teachers' knowledge of students ranked the lowest mean score; this should be addressed by educators and teachers in order for improvements and progress to be made.

Keywords: pedagogical content knowledge, phonics, teaching, English teaching

Introduction

In light of our world's globalization, Thailand has emphasized the importance and role of English as a component of its national education policy, emphasizing the importance of reading and writing abilities (Baker, 2012). As a part of accomplishing this, young learners must develop the ability to code and decode unfamiliar words during their elementary school years in order to comprehend a text when reading.

Phonics instruction has been shown to benefit reading development by teaching beginning readers the alphabetic writing system necessary for reading and spelling words at an early age (Rose, 2006). The more phonic skills acquired by students, the more advanced their early literacy skills are (Strickland et al., 2006). As a result, phonics was then suggested as a way to improve young Thai learners' English reading competency (Noom-Ura, 2013). Thailand's government recognized this and invested significantly in phonics education to help students improve their reading abilities (Kaur et al., 2016).

However, there is evidence that phonics instruction presents some difficulties among teachers in Thailand. Kaewchum (2018) indicated in her study that some teachers were not qualified in teaching English and were unfamiliar with English consonant sounds as well as the English alphabetic system, which had a significant impact on students' phonics skills and reading ability. Not only that, Dorkchandra (2010) discovered that the teaching methods and

materials used by teachers to teach English in Thailand were ineffective, negatively affecting students' abilities to read aloud. As a result, if teachers receive adequate training that provides them with the guidelines of effective phonics teaching, they should be able to teach phonics effectively (Castiglioni-Spalten, 2003). However, providing formal phonics teaching training to all English teachers in Thai schools is nearly impossible due to the high cost and availability.

When looking at what teachers can use to help plan effective phonics instruction, several documents are mentioned as guidelines (Ko and Sammons, 2013; Rose, 2006; Rowe & National Inquiry into the Teaching of Literacy (Australia), 2005). Even then, these guidelines do not specify what needs to be done in the classroom setting, making them difficult to implement. This has resulted in English teachers in Thailand possessing only a basic grasp of phonics knowledge but being clueless about how to teach.

Gudmundsdottir and Shulman (1987) discovered that teachers struggled to teach when they lacked effective pedagogical judgment and relied solely on their subject knowledge to impart knowledge to students. As a result, Shulman developed 'Pedagogical Content Knowledge', or PCK, to define the most efficient way of representing subject content (Shulman, 1987). The details of each PCK element vary according to subject content, and thus in regards to phonics teaching, PCK can be classified into three categories: (1) knowledge of phonics, letters, and sounds correspondence; (2) knowledge of teaching pedagogy; and (3) knowledge of students. Thus, integrating the three components of PCK for phonics instruction enables teachers to create effective lessons that can result in students attaining a high level of reading proficiency.

Teachers are valued in society for their ability to impart knowledge effectively, one of which is through the acquisition of PCK (Senge et al., 2012). Thus, the researcher wishes to examine how phonics teachers in Thailand perceive pedagogical content knowledge in phonics in terms of the elements of PCK that they have already acquired and mastered, as well as the elements they still lack and need to improve. This study can serve as a voice for teachers' abilities to teach young learners to code and decode in English in Thailand, ensuring that students achieve high abilities in reading.

Research objective

To investigate the pedagogical content knowledge in phonics of elementary school phonics teachers.

Research methodology

Research design

This study has adopted a mixed-method approach (qualitative and quantitative). The quantitative method was conducted through a developed questionnaire, The Phonics Teaching Questionnaire, in order to obtain data about how teachers perceive their level of pedagogical content knowledge in phonics teaching. The qualitative method was performed using open-ended questions to triangulate the qualitative data and to explore extensive information.

Participants

The participants were 33 Thai and native-speaking teachers who teach phonics in 12 elementary schools in Bangkok. They were purposively selected from a preliminary survey which was to determine which schools provide separate phonics lessons as part of their English curriculum at the elementary level. The survey revealed that 12 elementary schools matched this criterion.

Ethical consideration

The researcher informed participants about the study's objectives, procedures, and risks. Participants were asked to consent to the collection of data. Their personal information and data were kept private, and their names were not mentioned in the research paper, only in the data.

Research instrument

The Phonics Questionnaire was created to gather data from teachers about the pedagogical content knowledge in phonics. This questionnaire was designed for teachers to self-report and investigate their phonics teaching knowledge and performance. The questionnaire was developed under Shulman's PCK framework (Shulman, 1987). The questionnaire's content was created and formalized based on phonics teaching principles from the Rose Report (Rose, 2006) and the recommendation of effective teaching practice of several government reports (Ko & Sammons, 2013; Rowe & National Inquiry into the Teaching of Literacy (Australia), 2005).

The Phonics Teaching Questionnaire consisted of three sections. First, general information to gain background data of the participants. The second section is Self-perceived PCK in phonics teaching, which is comprised of three parts: knowledge of phonics, knowledge

of their teaching pedagogy, and knowledge of students. In order to avoid neutral answers, 30 statements were included with the 4-Likert scale, ranging from *Excellent* to *Poor* and *Always* to *Rarely*. The final section consisted of four open-ended questions in which participants were asked to describe their phonics class, teaching steps and activities, and how they support and plan lessons based on their students' abilities.

To ensure the quality of the instrument, The Phonics Teaching Questionnaire was validated by three experts in the field of phonetics and phonics teaching. The result of the total index of item-objective congruence (IOC) was 0.71, with each item receiving more than 0.5, which is considered acceptable.

Data collection and analysis

1. The participants were purposively selected and contacted to ask for consent to complete the questionnaire.

2. The Phonics Teaching Questionnaire was distributed to phonics teachers in 12 schools. It was launched online via Google Forms with a hard copy available upon request to maximize access to the questionnaire and thus response rate. The questionnaire was presented to 65 phonics teachers and it was completed by 33 people, with 50.77% of them responding.

3. The returned questionnaires were analysed.

3.1 The descriptive statistics were used to analyze the quantitative data. The mean 4-Likert scale scores for 30 statements were classified into four considerations: 1–1.75 was considered poor, 1.76–2.50 was considered fair, 2.51–3.25 was considered good, and 3.26–4.00 was considered excellent.

3.2 Content analysis was used to analyze the qualitative data from four open-ended questions.

Results

The results from The Phonics Teaching Questionnaire showed how phonics teachers perceived their knowledge of phonics teaching. The results were organized into three parts: knowledge of phonics, knowledge of pedagogy, and knowledge of students.

Demographic data. The 33 participants included 16 native-speaking teachers and 17 Thai teachers. Their phonics teaching experience varied from more than five years (27.3%) and

less than five years (72.7%). Out of 33 participants, only nine teachers (27.3%) had been trained to teach phonics, whereas 24 teachers (72.7%) had not been trained to teach phonics.

Phonics teachers' knowledge of phonics

The results of the self-report questionnaire that showed how teachers perceived their knowledge of phonics are shown in Table 1.

Table 1

Level of teachers' knowledge of phonics.

No.	Statements	<i>M</i>	<i>SD</i>	Levels
1.)	I can blend phonics sounds together, e.g. 'p-e-n' or 'p-l-ay'.	3.64	0.55	Excellent
2.)	I can identify the relationship between sounds and letters.	3.55	0.67	Excellent
3.)	I can pronounce all English sounds correctly and clearly.	3.33	0.78	Excellent
4.)	I can sequence the difficulty of the sounds from less complex to more complex sounds.	3.27	0.80	Excellent
5.)	I know exactly how certain letter groups are pronounced.	3.24	0.71	Good
6.)	I know the common exception words that are not pronounced the same as they look, e.g. two, does, else, though.	3.21	0.65	Good
7.)	I know the high-frequency words that students will be reading in everyday texts.	3.03	0.79	Good
8.)	I know the way in which words or sounds are produced by bringing articulatory organs together.	3.00	0.66	Good
9.)	I know how to read Phonetic symbols.	2.97	0.88	Good
10.)	I can identify the differences between English and other languages' phonetic system.	2.73	0.98	Good
Average		3.20	0.75	Good

Note: N = 33

From Table 1, the results showed that the first three highest mean scores of teachers' knowledge of phonics were item 1) *I can blend phonics sounds together, e.g. 'p-e-n' or 'p-l-ay'* ($M = 3.64$); item 2) *I can identify the relationship between sounds and letters* ($M = 3.55$); and item 3) *I can pronounce all English sounds correctly and clearly* ($M = 3.33$).

On the other hand, the lowest mean score was item 10) *I can identify the differences between English and other languages' phonetic system* ($M = 2.73$). The average mean score of teachers' knowledge of phonics was at a good level ($M = 3.20$).

The results from the open-ended questions regarding how teachers perceived knowledge of phonics showed that the majority of the participants acknowledged that each of the sounds is different in terms of difficulty and that they needed to teach them in order from less complex to more complex. For instance, teacher 15 stated that:

"Because my students are very young, I begin teaching with the set 1 sounds. Set 1 sounds are a group of sounds and letters that are simple to say and remember, like /t/, /a/, /p/, or /n/. Sounds like /ch/, or /l/ and /r/ are left for the next step because they are difficult to pronounce. Then I'll teach them how to spell simple CVC words like 'pan' or 'tap'." (T15)

On the other hand, within the knowledge of phonics, some concerns remain among Thai phonics teachers. According to teacher 28, she stated that:

"Even though I know how to pronounce the sounds, teaching Thai students how to pronounce them correctly is difficult because they are unfamiliar with the proper mouth formation for certain sounds like /th/ and /ch/. Sometimes, I cannot pronounce them right as well." (T28)

Phonics teachers' knowledge of pedagogies

The results of the self-report questionnaire that showed how teachers perceived their knowledge of pedagogies are shown in Table 2.

Table 2

Level of teachers' knowledge of pedagogies.

No.	Statements	<i>M</i>	<i>SD</i>	Levels
1.)	I use teaching materials that are suitable for young learners, e.g. pictures, letters, magnetic alphabets.	3.33	0.92	Excellent
2.)	I give students opportunities to practice their phonics skills	3.30	0.85	Excellent
3.)	I plan and teach lessons from simple to more complex sounds	3.27	0.88	Excellent
4.)	I give clear explanations regarding phonics, including how to pronounce each sound and blend those sounds.	3.27	0.84	Excellent

Note: $N = 33$

Table 2 (cont.)*Level of teachers' knowledge of pedagogies.*

No.	Statements	<i>M</i>	<i>SD</i>	Levels
5.)	I continue to review all the phonics sound throughout the phonics course to ascertain the consistency of learned sounds.	3.18	0.88	Good
6.)	I plan and teach phonics lessons according to these steps: review, teach, practice, apply and assess.	3.06	0.90	Good
7.)	I use a summative assessment against the standard to check student progress at the end of the phonics course.	2.97	1.07	Good
8.)	I give ongoing feedback after students read aloud	2.91	1.05	Good
9.)	I use multi-sensory instructional approaches, e.g. visual, auditory, kinesthetic when I teach phonics.	2.88	0.99	Good
10.)	I assign students decodable texts or reading materials to read both inside and outside of the lesson.	2.69	1.10	Good
Average		3.09	0.95	Good

Note: N = 33

From Table 2, the results show that the first three highest mean scores of teachers' knowledge of pedagogies were item 1) *I use teaching materials that are suitable for young learners, e.g. pictures, letters, magnetic alphabets* ($M = 3.33$); item 2) *I give students opportunities to practice their phonics skills* ($M = 3.30$); whereas item 3) *I plan and teach lessons from simple to more complex sounds*; and item 4) *I give clear explanations regarding phonics, including how to pronounce each sound and blend those sounds* have shared the same mean score ($M = 3.27$). Items 1), 2), 3), and 4) were interpreted to be at an excellent level.

On the other hand, the item that had the lowest mean score was item 10) *I assign students decodable texts or reading materials to read both inside and outside of the lesson* ($M = 2.69$). The average mean score of teachers' knowledge of pedagogies was at a good level ($M = 3.09$).

The results from the open-ended questions about teachers' knowledge of pedagogies showed in three topics: (1) steps of teaching and the lesson plans, (2) teaching activities, and 3) providing feedback. Each of the topics is shown as follows.

1. Steps of teaching and the lesson plans: All 33 phonics teachers stated that they follow a similar teaching sequence, beginning with the introduction of new sounds-letters.

Next was the practice of pronunciation through activities, followed by practice of reading and writing. However, out of 33 teachers, less than half provided solid examples of revised previous teaching sounds-letters as the first step in teaching before introducing the new sounds as the teacher 3 stated that:

“I have to revise the previous sounds because I feel like it is essential to do so. Kids keep forgetting sounds, so I have to repeat practicing to help them to remember.” (T3)

While more than half of the participants did not do so in their lesson. Furthermore, some of them said they plan their phonics lessons around commercial phonics teaching programs and use their resources to teach students. They assert that their school provided a commercial phonics program for all teachers to use and that they were required to follow strict guidelines, whereas the remaining teachers claim that they planned lessons as they saw fit. One English teacher stated that:

“...because my lesson lasted only 45 minutes, I prepared fewer phonics teaching steps than I did at my previous school.” (T11)

2. Teaching activities: Teachers gave examples of the teaching activities that they found to be successful, such as, games, songs, and peer reading. Games, in particular Bingo, were the most mentioned activities by participants. As Teacher 9 explained:

“To make sure that students remember the shape of letters in a fun way, I use Bingo cards to play a game. Or sometimes I can change to [a] matching cards game and that is a fun one too’. Young students like to move around and be able to touch some things, so it would not be too boring for them to remember the letters.” (T9)

3. Providing feedback: More than half of teachers mentioned that they always gave constant verbal feedback/praise to their students, such as ‘good job’, well done’ or ‘you’re a star’ to promote their confidence. Teachers 5 gave an example that:

“I always say ‘good job’ or ‘well done’ to my students. It is not hard to do when I teach them, and I think my students are happy when I say that to them.” (T5)

Giving positive feedback is a teacher’s choice but has been shown to raise a student's confidence. Other teachers stated that they provided verbal or written feedback, but only when something truly exceptional occurred during the lesson. For writing tasks, only a few teachers stated that they gave corrections immediately and asked students to correct them straight away.

Phonics teachers' knowledge of students

The results of the self-report questionnaire that showed how teachers perceived their knowledge of students are shown in Table 3.

Table 3

Level of teachers' knowledge of students.

No.	Statements	<i>M</i>	<i>SD</i>	Level
1.)	I adjust the learning targets based on my students' learning abilities.	3.30	0.88	Excellent
2.)	I use the learning assessment that is suitable and coherent to my student's phonics level.	3.18	0.85	Good
3.)	I make connections between student background knowledge and the learning of new sounds and letters.	3.15	0.76	Good
4.)	I identify the limitations of and know how to challenge each student's reading ability in my lesson.	3.12	0.99	Good
5.)	I provide reading materials that are suitable for varying student abilities across the classroom, e.g. giving out different practice book levels.	3.03	1.07	Good
6.)	I provide variety of classroom activities according to student learning styles and preferences, e.g. group work, worksheet, drawing, singing.	2.97	1.03	Good
7.)	I use different methods to monitor and assess students learning progress, e.g. reading aloud, phonics screening check, dictation.	2.94	0.93	Good
8.)	I plan the phonics lessons based on the grade level indicators of the school curriculum.	2.91	1.13	Good
9.)	I provide extra support or phonics activities to help students learn phonics outside of the lesson, e.g. reading club, intervention session.	2.73	0.97	Good
10.)	I give advice to parents regarding how they can practice reading with their children at home.	2.58	0.94	Good
Average		2.99	0.95	Good

Note: N = 33

From Table 3, the results show that the first three highest mean scores of teachers' knowledge of students were item 1) *I adjust the learning targets based on my students'*

learning abilities ($M = 3.30$); item 2) *I use the learning assessment that is suitable and coherent to my student's phonics level* ($M = 3.18$); and item 3) *I make connections between student background knowledge and the learning of new sounds and letters.* ($M = 3.30, 3.18$, and 3.15 respectively). Only item 1) was interpreted to be at an excellent level, whereas items 2) and 3) were interpreted to be at a good level.

In contrast, the item that had the lowest mean score was item 10) *I give advice to parents regarding how they can practice reading with their children at home* ($M = 2.58$). The average mean score of teachers' knowledge of students was at a good level ($M = 2.99$).

Regarding teachers' knowledge of students, the participants mentioned techniques and strategies in the responses, for example:

1) Pair reading partners together that have slightly different abilities. It was mentioned that this way, students can benefit from and support one another during the activity.

2) Divide students into smaller, differentiated reading groups and assign separate teachers to each group. Teachers explained that it was more convenient for teachers to plan activities and provide assistance to students.

3) Give extra care towards students without them knowing it to boost their confidence.

4) Provide students with a teaching assistant to assist them during the lesson. This was mentioned by teachers who work in schools with sufficient resources and teaching staff.

5) Arrange for additional phonics lessons as needed for students who have a limited ability in phonics.

6) Separate students who require assistance and have them practice reading aloud together.

In conclusion, phonics teachers perceived that their knowledge of phonics instructions regarding elements in PCK are adequate for teaching Thai students to read.

Discussion

The discussion was organized into three parts according to the PCK framework.

1. Phonics teachers' knowledge of phonics

It has been shown in the results that the participants perceived that they have a good sufficient knowledge of their pronunciation as the mean score of the item 3) *I can pronounce all English sounds correctly and clearly* ($M = 3.33$) is at an excellent level. It was indicated that they were confident in their English pronunciation. Surprisingly, they still doubted their knowledge of phonetics and lacked confidence in the ability to distinguish between the phonetic systems of English and other languages as shown in the results from item 9 and item 10. The reason could be that Thai teachers have faced the challenge of teaching a foreign language that is not their native language. This finding is in concordance with the study of Wattanatorn (2020) who studied teacher preparedness in bilingual schools and found that the ability of Thai teachers using English to teach and communicate in a lesson was an issue in terms of their correctness and fluency. Therefore, one of the practical solutions has been suggested as the International Phonetic Alphabet (IPA). The IPA's objective is to create visually distinct symbols for all speech sounds that are phonologically distinct in any languages which could help second language teachers to be able to teach and pronounce correctly (Trask, 1996). Consequently, phonics teachers in Thailand should be trained and developed in the knowledge of the phonetics system and master in this to be able to pronounce and teach English sounds effectively (Celce-Murcia et al., 2000).

2. Phonics teachers' knowledge of pedagogies

As compared to Dorkchandra (2010), who found that the English teaching materials and activities used by Thai teachers are ineffective, the findings of this study indicated a difference. For example, item 1 indicated that participants used a variety of hands-on teaching materials, such as pictures, flashcards, and magnetic alphabets, to teach young learners phonics. This finding supports McGlothlin's (1997) statement that teaching young learners is distinct from teaching adults due to their distinct needs, expectations, and learning strategies. Children are kinesthetic learners, meaning they require materials that stimulate their senses. Additionally, the participants have involved a range of teaching activities to provide opportunities for students to practice (item 2), consistent with Toonsiri and Adipattaranan's (2020) research, which indicated that studying phonics through a variety of teaching activities could support students to retain information for longer periods of time.

3. Phonics teachers' knowledge of students

The findings indicated that teachers' knowledge of students had the lowest level of interpretation of all PCK elements, particularly in terms of how teachers advise parents on how to practice reading at home with their children. Nonetheless, Shulman's concept of the PCK is indivisible, which means that content and pedagogical knowledge alone are insufficient to ensure that phonics teachers deliver effective classroom instruction; knowledge about students is also necessary (Shulman, 1987). Providing practice reading only in the classroom, on the other hand, would be insufficient for students to learn English as a second language due to their limited exposure outside the classroom (Noom-Ura, 2013). Teachers of phonics should step up their game in this area, as research indicates that close collaboration between teachers and parents can improve students' outside-of-school learning outcomes (Adams, 2018). In addition, Cramer (2006) stated that teachers must assist parents with resources available both inside and outside the classroom in order to accomplish this. For instance, in the case of phonics instruction, teachers should recommend reading resources to parents so they can practice reading with their child at home, while parents must fulfil their child development responsibilities effectively.

Conclusions

In general, the phonics teachers' pedagogical content knowledge was rated as adequate. This demonstrated that phonics teachers in Thailand possess a solid understanding of the subject and are capable of providing students with a high-quality education. What is clear is that teachers with PCK in phonics instruction possess a unique understanding of how to teach phonics effectively and are capable of assisting students' learning in specific content areas and circumstances. However, some aspects could be improved. As educators, we should consider preparing phonics teachers by providing phonics teaching training or by developing a phonics teaching guideline to serve as a foundation for teachers to follow and to ensure the quality of phonics instruction.

Limitation

The sample size of the questionnaire was limited to only 33 participants as there was the Covid-19 pandemic at the time of collecting data. A bigger sample size should provide more accurate results.

Recommendation for Future Research

The study was conducted using only a questionnaire to investigate how phonics teachers perceive pedagogical content knowledge of phonics teaching. To gain more in-depth data, qualitative data such as interviews should be collected further to capture more insightful information for more accurate and detailed results.

References

- Adams, D., Harris, A., & Jones, M. S. (2018). Teacher-parent collaboration for an inclusive classroom: Success for every child. *MOJES: Malaysian Online Journal of Educational Sciences*, 4(3), 58-72.
- Baker, W. (2012). English as a lingua franca in Thailand: Characteristics and implication. *English in Practice*, 1, 18-27.
- Castiglioni-Spalten, M. L., & Ehri, L. C. (2003). Phonemic awareness instruction: Contribution of articulatory segmentation to novice beginners' reading and spelling. *Scientific Studies of Reading*, 7(1), 25-52.
- Celce-Murcia, M., Brinton, D. and Goodwin, J. (2000). *Teaching pronunciation: A reference for teachers of English to speakers of other languages*. Cambridge University Press.
- Cramer, S. F. (2006). *The special educator's guide to collaboration: Improving relationships with co-teachers, teams, and families*. Thousand Oaks, CA: Corwin Press.
- Dorkchandra, D. (2010). *Enhancing English reading comprehension through a text structure reading strategy CALL program*. Suranaree University of Technology Thailand.
- Gudmundsdottir, S. & Shulman, L. (1987). Pedagogical content knowledge in social studies. *Scandinavian Journal of Educational Research*, 31, 59-70.
- Kaewchum, C. (2018). *A study on Thai kindergarten teachers' perception and production of 10 English problematic final consonant sounds: A case study in the northeast of Thailand*. Thammasat university.
- Kaur, A., Young, D. and Kirkpatrick, R. (2016) English Education Policy in Thailand: Why the Poor Results? In: Kirkpatrick, R., Ed., *English Language Education Policy in Asia*, Springer International Publishing, Cham, 345-361. https://doi.org/10.1007/978-3-319-22464-0_16

- Ko, J., & Sammons, P. (2013). *Effective Teaching: A Review of Research and Evidence*. CfBT Education Trust.
- McGlothlin, D.J., (1997). A Child's First Steps in Language Learning. *The Internet TESL Journal* [On-line serial]. <http://iteslj.org/Articles/McGlothlin-ChildLearn.html>
- Noom-Ura, S. (2013). English-teaching problems in Thailand and Thai teachers' professional development needs. *English Language Teaching*, 6(11), 139-147.
- Rose, J. (2006). *Independent review of the teaching of early reading*. Department for Education and Skills. <https://dera.ioe.ac.uk/5551/2/report.pdf>
- Rowe, K. & National Inquiry into the Teaching of Literacy (Australia). (2005). *Teaching reading: report and recommendations*. Department of Education, Science and Training. https://research.acer.edu.au/tll_misc/5
- Senge, P. M., Cambron-McCabe, N., Lucas, T., Smith, B., & Dutton, J. (2012). *Schools that learn (updated and revised): A fifth discipline fieldbook for educators, parents, and everyone who cares about education*. Currency.
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-23. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>
- Stahl, S. A., Duffy-Hester, A. M., & Stahl, K. A. D. (2006). Everything you wanted to know about phonics (but were afraid to ask). *Reading Research Quarterly*, 33(3), 338-355.
- Strickland, D. S., & Riley-Ayers, S. (2006). Early literacy: Policy and practice in the preschool years. *Preschool policy brief*, 10(4), 1-12.
- Toonsiri, R., & Adipattaranan, N. (2020). Using phonics method to promote English pronunciation ability and vocabulary knowledge among Mathayom Suksa 1 students. *Journal of Education Naraesuan University*, 22(4), 185-198.
- Wattanatorn, A. (2020). Teacher preparedness for teaching in bilingual school: A case of Phayao University. *Journal of Education Naraesuan University*, 22(4), 351-364.