A Study of Teacher's Competency for Conducting a Professional Development Program at a Catholic School in Thailand Using the Southeast Asia Teachers Competency Framework

การศึกษาสมรรถนะของครูเพื่อจัดโครงการพัฒนาวิชาชีพ ณ โรงเรียนคาทอลิกในประเทศไทย โดยใช้กรอบสมรรถนะของครูแห่งเอเชียตะวันออกเฉียงใต้

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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาสมรรถนะของครูในโรงเรียนคาทอลิกในประเทศไทย โดยใช้กรอบสมรรถนะ ของครูแห่งเอเชียตะวันออกเฉียงใต้ [Southeast Asia Teachers Competency Framework (SEA-TCF)] ที่เป็นมาตรฐาน สมรรถนะของครูระดับภูมิภาค การวิจัยแบ่งเป็น 2 ระยะ คือ ศึกษาระดับสมรรถนะของครูตามกรอบมาตรฐาน และ จัดโครงการพัฒนาวิชาชีพเพื่อให้ครูมีสมรรถนะในระดับที่ดีขึ้น กลุ่มตัวอย่างที่ใช้ในการเก็บข้อมูลเป็นครูผู้สอนทั้งชาวไทยและ ชาวต่างประเทศ จำนวน 179 คน เครื่องมือที่ใช้ในการเก็บข้อมูลเป็นแบบประเมินตนเอง (Self-Rating Competency Checklist) ผู้วิจัยหาคุณภาพเครื่องมือโดยใช้การวิเคราะห์องค์ประกอบเชิงยืนยัน (Confirmatory Factor Analysis) และ มีค่าความเชื่อมั่น (Reliability) Cronbach's α (.942) ผลวิจัยแสดงระดับสมรรถนะของครูใน 4 กลุ่มสมรรถนะจากสูงสุด ถึงต่ำสุด ได้แก่ เป็นครูที่ดีขึ้นในทุกๆ วัน ($\overline{X}$ = 3.26) ส่งเสริมและช่วยให้นักเรียนได้เรียนรู้ ($\overline{X}$ = 3.04) ให้ชุมชนมีส่วนร่วม ($\overline{X}$ = 2.99) และรู้และเข้าใจสิ่งที่สอน ($\overline{X}$ = 2.92) โดยค่าเฉลี่ยของทั้ง 4 กลุ่มสมรรถนะอยู่ในระดับที่ครูสามารถทำได้ดีมาก ($\overline{X}$ = 3.05) ในระยะที่สองเป็นการจัดการจัดฝึกอบรมพัฒนาวิชาชีพ ซึ่งจัดขึ้นตรงตามผลที่พบว่าครูมีระดับสมรรถนะต้องการ การพัฒนา ผลจากการทดสอบความรู้ก่อนและหลังการอบรมโดยใช้ค่าสถิติ paired samples *t*-test แสดงค่าความแตกต่าง อย่างมีนัยสำคัญ คือ ก่อนการอบรม ($\overline{X}$ = 2.17, S.D. = .88) และหลังการอบรม ($\overline{X}$ = 3.88, S.D. = .61) เมื่อ t(159) =- 32.94, p=.00. แสดงว่าแบบประเมินตนเองโดยใช้กรอบสมรรถนะของครูแห่งเอเชียตะวันออกเฉียงใต้ ส่งเสริมให้รู้แนวทาง ในการพัฒนาของครูและโรงเรียนสามารถจัดโครงการอบรมเพื่อพัฒนาวิชาชีพครูได้อย่างเหมาะสม อีกทั้งสามารถสร้าง ความร่วมมือ แบ่งปันความรู้ ระหว่างครูและบุคลากรของโรงเรียน

คำสำคัญ : ครู ; การพัฒนาวิชาชีพ ; กรอบสมรรถนะของครู ; เอเชียตะวันออกเฉียงใต้ ; โรงเรียนคาทอลิก

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ABSTRACT

This research aimed to study the competency of teachers at a Catholic school in Thailand using Southeast Asia Teachers Competency Framework (SEA-TCF) as regional standardized measurement. The research divided into 2 phases: to investigate the level of teachers' competency according to the framework, and to conduct the professional development program for improving the teachers' competency. The sample group of the study consisted of 179 Thai and foreign teachers. The instrument used for data collecting was the Self-Rating Competency Checklist. The Confirmatory factor analysis (CFA) was used to construct the instrument quality. The over al reliability was at Cronbach's α of .942. The research results showed the level of teachers' competency in 4 aspects from the highest to the lowest respectively: becoming a better teacher every day ($\overline{\mathbf{X}}$ = 3.26), support and help students to learn ($\overline{\mathbf{X}}$ = 3.04), the community was engaged ($\overline{\mathbf{X}}$ = 2.99), and know and understand what to teach ($\overline{\mathbf{X}}$ = 2.92). The average of the 4 groups of competency was at the level that the teachers are able to do very well' ($\overline{\mathbf{X}}$ = 3.05). In the second phase was a professional development program which conducted according to the result that found that the level of teachers' competency need improvement. The result from testing pre and post-activity using a paired samples t-test found that the score was significantly different: pre-activity ($\overline{\mathbf{X}}$ = 2.17, S.D. = .88) and post-activity ($\overline{\mathbf{X}}$ = 3.88, S.D. = .61) when t(159) =-32.94, p=.00. This showed that the Self-Rating Competency Checklist using the SEA-TCF was a helpful tools for identifying areas of teacher improvement so the school can provided suitable professional development activities and can also create a collaboration and knowledge sharing between teachers and school staff

Keywords : Teacher ; Professional Development ; Teacher Competency ; Southeast Asia ; Catholic School

Introduction

Schools nowadays face complex challenges in fulfilling their primary purpose of educating students. Increasing academic expectations and standards, technological integration, and diverse student populations with differing ability levels all contribute to challenges in teaching and learning. Research has shown that teaching quality, highly competent teachers, and school leadership are the most influential factors that can increase student achievement in schools (Podungge, Rahayu, Setiawan, and Sudiro, 2020 ; Istiqomah, Suyatno and Maryani, 2019). Improving teaching quality and providing teachers with the knowledge and ability to teach effectively are significant concerns for schools. Consequently, professional development plays an essential role in strengthening teacher performance. Ongoing professional development opportunities allow teachers to improve their skills and abilities.

Thus, in this study, the Southeast Asia Teachers Competency Framework (SEA-TCF) of teachers was employed to investigate the competencies of teachers with the aim to improve their competencies to meet the SEA-TCF regional standardized framework. The training program was conducted based on the level of teachers' competencies (Southeast Asian Minister of Education, Organization, Innovation, and Technology (SEAMEO INNOTECH), Southeast Asian Ministers of Education Organization (SEAMEO), and Teachers' Council of Thailand, 2018). The significance of this study includes allowing teachers to know their own competencies and develop the competencies needed for student learning and development. Consequently, the school administrator could apply the SEA-TCF for the professional development program for teachers. Moreover, students benefit from teachers with high levels of teacher competencies. Teachers are essential in helping students increase student achievement and being role models and imparters of the Catholic ideals of love,

family, compassion, giving, and service to others. The Catholic school philosophy is that every teacher can be a leader, and therefore all teachers are given opportunities to be trained and developed throughout their career in the school. Thus, this study aimed to identify specific teaching competencies needed and develop a targeted PD program to meet the needs of teachers at the school. According to Joyce and Calhoun (2010), professional development, or PD, is ubiquitous in education. It is widely accepted that PD helps improve teaching and can be conducted in various forms or models. Governments, schools, and other educational institutions spend large sums annually on providing and implementing PD programs.

Nonetheless, the question of 'what' to improve has been challenging. Typical focus areas have included generic teaching practices, subject-specific teaching practices, pedagogical and curricular practices, and how students learn. With the myriad of roles that teachers take on in the school, it is crucial to focus on areas that provide the most benefit or, at the very least, represent the needs of the teachers at the specific school or institution.

Research Objectives

This study was conducted with the following two objectives:

1. to investigate the level of teachers' competency based on the Southeast Asia Teachers Competency Framework (SEA-TCF) at Catholic school in Thailand.

2. to conduct the professional development program for improving teachers' competency.

Literature Review

Competencies refer to the ability of a person to integrate knowledge, skills, abilities, behavior, and personal characteristics for work achievement. Other aspects of the competency defined by underlying the two levels of competencies, the area surface of the iceberg, knowledge, and skill competencies, can be measured and developed. In contrast, the area located at the bottom of the iceberg, self-concept, trait, and motive competencies, are not easy to measure and change (Spencer and Spencer, 1993). Lately, Lane (2022) defined competencies as skills, attitudes, values, and personal characteristics that enable them to act professionally and appropriately in educational settings.

Teachers' Competencies

Traditionally, teachers' competencies focused on teachers' school duties related to the planning and implementing of teaching responsibilities. However, the term competencies have evolved to cover more than just classroom competencies but other areas such as life-long learning, socio-cultural, emotional, communication, and environmental competencies. In recent years, Shidiq, Promkaew and Faikhamta (2022) reported a systematic review analysis of the trends of teachers' competencies in teacher education from 2015 to 2020. There were a significant number of papers from the United States focused on improving teachers' learning attitudes. Besides, the trends also showed the domains of teacher education strategies on strategies for enhancing teacher education capabilities, developing pre-service teachers' competencies, improving the transformation of classroom practice, the learning of collaborative teachers, enhancing student attainment, knowledge of pedagogical content, knowledge of the subject, and experiential training (Shidiq et al., 2022 ; Heineke and Giatsou, 2020). In addition, due to the lifelong learning concept that brings in the necessity of digital competency for teachers, teacher training and pre-service ICT training also focus on technological advances related to teaching. (Artacho et al., 2020).

Southeast Asia Teachers Competency Framework

Many countries have teaching competency frameworks related to general and specific subject areas of teaching. In the great collaboration of ASEAN countries (the 10 ASEAN countries plus Timor Leste) under the SIREP: SEAMEO INNOTECH Regional Educational Project series started in the year 2010 in the Philippines, the list of teachers' competencies in Southeast Asian countries was identified and validated. The general area of competencies of Southeast Asian teachers in the 21st century was presented in 11 area competencies: 1) facilitating the development of learner's life and career skills, 2) creating a conducive learning environment, 3) facilitating learning, 4) preparing appropriate lesson plans in line with the school vision and mission, 5) developing higher order thinking skills (HOTS), 6) developing and utilizing teaching and learning resources, 7) enhancing ethical and moral values, 8) assessing and evaluating learner performance, 9) engaging in professional development, 10) networking with stakeholders especially with parents, and 11) managing students' welfare and other tasks [Southeast Asian Minister of Education, Organization, Innovation, and Technology (SEAMEO INNOTECH), 2010]. Later, in 2018, the Southeast Asia Teachers Competency Framework (SEA-TCF) resulted from a regional collaboration of 11 Ministries of Education. Its development was based on the objective of providing a regionally relevant set of competencies and serving as a guide for teacher professional development to enhance 21st century skills and practices. It contains four essential competencies; knowing and understanding what to teach, helping students learn, engaging the community, and becoming a better teacher every day. These four essential competencies include 12 general competencies, 31 enabling competencies, and 136 success descriptors recommended for high-performing teachers in the Southeast Asia region (Southeast Asian Minister of Education, Organization, Innovation, and Technology (SEAMEO INNOTECH), Southeast Asian Ministers of Education Organisation (SEAMEO) and Teachers' Council of Thailand, 2018).

According to the framework, the competencies are divided into the following essential areas and deemed helpful in promoting common performance standards among teachers across the Southeast Asia. The following information is the detail of the SEA-TCF framework. (Southeast Asian Minister of Education, Organization, Innovation and Technology (Southeast Asian Minister of Education, Organization, Innovation, and Technology (SEAMEO INNOTECH), Southeast Asian Ministers of Education Organization (SEAMEO), and Teachers' Council of Thailand, 2018).

Essential Competency 1 – Knowing and Understanding what to teach. This competency consists of three sets of teachers' competencies in general; they include (1) the ability of teachers to deepen and broaden their knowledge of what to teach, (2) understanding education trends, policies, and curricula, and (3) be updated on local, national, regional, and global developments. All 18 success descriptors under the six enabling competencies are explained about the standard teachers need to know and understand what to teach. As this essential competency, the teacher must be a person who is ready to teach with good content knowledge, constantly update themself by using research-based knowledge, trends in education both local and global, and study new educational policy related to the professional career in teaching.

Essential Competency 2 – Helping Students to Learn. The success or achievement of students is always relied on by the teachers in the schooling system. Nowadays, even students can complete their studies without attending school. However, in education – schools with classroom settings still be the topic for educators and researchers to study for more effective teaching and learning methods. So many forms of teaching pedagogy, student activities, and other forms of how teachers help students are designed and put into practice. These competencies describe the three sets of standards related to the ability of teachers to (1) know the students on their needs and strength by listening and observing, studying their background, and understanding issues and concerns both at home and school in order to help and encourage them to

learn better, (2) use the most effective teaching and learning strategies by selecting an appropriate strategy for teaching, designing understandable lessons, and provide learning space with a positive environment, (3) assess and give feedback on how students learn by designing a clear process on assessment and tools, following up the progress of students, providing feedback, and use assessment results for improving the instruction.

Essential Competency 3 – Engaging the Community. This competency includes partnering with parents and caregivers to let them help students learn and building a positive environment where everyone shares love and respect with other members. There are seven enabling competencies with 26 success descriptors involved to build a network and engage parents and caregivers for a good relationship and to become a partner with the school. This teachers' competency required teachers to not only build good relationships and be able to design learning activities but also respect people with different cultures, values, beliefs, and nationalities.

Essential Competency 4 – Becoming a Better Teacher Every Day. The ability to know oneself and others is a crucial competency that led teachers to improve themselves professionally as educators. These competencies include having knowledge of oneself and understanding others, practicing human goodness in both life and work, and mastering the multi-tasks and responsibilities of a teacher, such as teaching students with passion and love, continuing professional development, and inspiring and sharing good practice to other teachers (Southeast Asian Minister of Education, Organization, Innovation, and Technology (SEAMEO INNOTECH), Southeast Asian Ministers of Education Organization (SEAMEO), and Teachers' Council of Thailand, 2018).

The details above best describe the standard of the Southeast Asia Teachers Competency Framework (SEA-TCF), items for teachers' self-assessment under the four essential competencies also provided by using four rating scales of assessment. The benefit of self-assessment results allows the individual teacher and the group of teachers to know their strengths and weaknesses. Later, it can be a guideline for the professional development of teachers in education.

Professional Development in Education

The traditional form of professional development for teachers is mainly in-service training, including one-shot seminars or short-term courses (Scheerens, 2010). As time flows, learning-oriented teachers have gradually become the mainstream, adaptability, proficient teaching skills, and academic ability, which makes them able to cope with the gradually diversified students. However, traditional pre-service or in-service training has been unable to meet the professional development needs of these new teachers. Therefore, Continuing Professional Development (CPD) has become an active need of teaching professionals by degrees rather than passive choice.

According to Bubb and Earley (2007), Continuing professional development (CPD) reflects the dual needs of the individual and the will of the school, which includes all formal and informal, all-natural learning experiences and planned learning activities (Day, 1999), including but not limited to short-term courses, workshops, conferences, and coaching/mentoring, aiming to improve personal, professional practice including professional knowledge, teaching skills, values, ethics, etc. This CPD aims to benefit individuals, groups, or schools and improve teaching quality. This is a process through which teachers, alone or with others, review, update, and expand their commitment to teaching ethics as changers; through this process, they critically acquire and develop knowledge, skills, and emotional intelligence. This knowledge, skills, and emotional intelligence are essential for good professional thinking, planning, and children's practice, and they help teachers and colleagues through every stage of career development (Day, 1999). Professional

development can be regarded as an aspect of personal development, which involves not only the development of professional roles but also the self-change of consciousness as the subject of "person." Therefore, a core purpose of CPD is to enable teachers to become active continuous learners, thereby promoting an overall learning community and organization to serve teaching effectiveness (Bubb and Earley 2007) ultimately.

Conceptual Framework

This study referred to the concept of teachers' competencies and professional development.
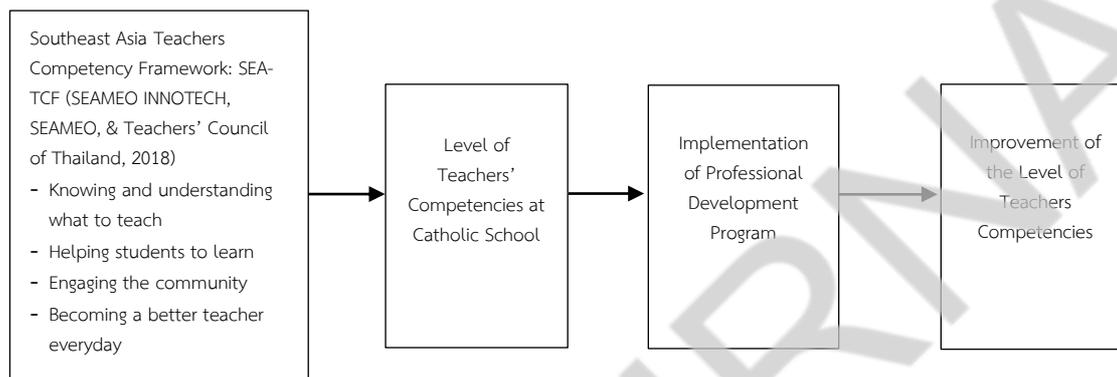

Figure 1 Conceptual Framework of the Study

Research Methodology

This study aimed to determine the level of teaching competencies specified by the Southeast Asia Teachers Competency Framework in the target school to identify those competencies and assist the school in developing a professional development plan. This study consisted of two phases. Firstly, to investigate the level of teachers' competency based on the Southeast Asia Teachers Competency Framework (SEA-TCF) at a Catholic school in Thailand. Secondly, to conduct the professional development program for improving teachers' competency.

Phase 1 To investigate the level of teachers' competency based on the Southeast Asia Teachers Competency Framework (SEA-TCF) at a Catholic school in Thailand.

Target Group of the Study

A Catholic school in Thailand was a target school for this study; all teachers participated in the first phase of the study. There were 179 teachers (160 Thai and 19 foreign teachers) participated in the study in the first phase; while the second phase of the professional development training program, only Thai teachers (160 teachers) participated in the training program as the program used the Thai language as a medium for communication.

Research Instrument

The Self-Rating Competency Checklist – This phase employed the Self-Rating Competency Checklist based on the Southeast Asia Teachers Competency Framework (SEA-TCF), which contained three sections: section 1 – participants information, section 2 – four essential competencies of teachers as 1. Knowing and understanding what to teach, 2. Helping students to learn, 3. Engaging the community, and 4. Becoming a better teacher every day, and Section 3 – the preferable methods for professional development. There were 31 items in Section 2 applied for respondents to rate themselves on a Likert-type scale with

four responses ranging from 1 to 4, whereas "1=I cannot do this yet," "2=I have started to do this," "3=I can do this very well," and "4=I can do this with confidence, and I can teach others. Two versions of the instrument, Thai and English, were used. The instrument also contained 13 items related to professional development preferences and five items related to demographic information. Once the levels of competencies were determined, the competency receiving the lowest mean was addressed in a professional development training activity. Table 1 below shows the interpretation of the level of competency using a 4-point Likert scale (Wright and Masters, 1982).

Table 1 Interpretation for a 4-point Likert scale

Likert Scale	Interval	Level of Competency
1	1.00-1.75	I cannot do this yet
2	1.76-2.50	I have started to do this
3	2.51-3.25	I can do this very well
4	3.26-4.00	I can do this with confidence, and I can teach others

The construct validity and reliability of the Thai version of the instrument were confirmed in a study by Mhunpiew, Dan, and Unarat (2021) and found to be valid. Reliability of the instrument showed the overall Cronbach's α .942 while the four essential competencies: knowing and understanding what to teach, helping students to learn, engaging the community, and becoming a better teacher every day, were .76, .88, .83, and .92, respectively.

The instrument's construct validity was verified by confirmatory factor analysis (CFA). There were four steps as follows.

a) Use of the Amos software to build the instrument measurement model, as shown in figure 2.
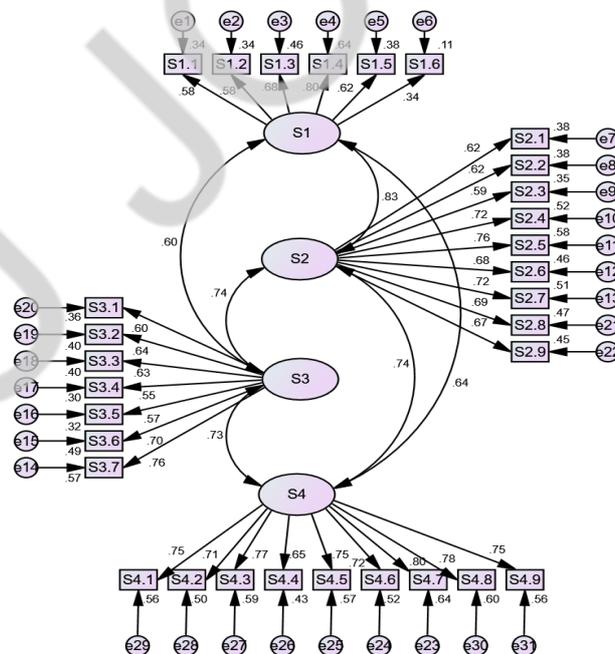
Note. S1 = Section 1, S2 = Section 2, S3 = Section 3, S4 = Section 4.
S1.1-S1.6 respectively represent the six items in Section 1, and so on.

Figure 2 The Construct Validity of Research Instrument

b) Analyze the factor loadings each item of the model to show the relationship to each dimension and consider deleting or modifying the item if the factor loadings are lower than .30 (Field, 2013). In the above figure, factor loadings in measurement model were greater than .50, with values ranging from .34 to .80, except for S1.6 (.34). However, all items were greater than .30 means, and all items could be retained.

c) To discriminate the model's convergent validity, determined by average variance extracted (AVE) and composite reliability (CR). The AVE refers to the sum of the square of the factor loadings values, which represents the comprehensive explanatory ability of potential variables for all measured variables. In contrast, the CR value uses the square of the sum of the factor loadings to represent the questionnaire's internal consistency. The AVE values calculated for each factor ranged from a minimum of .38 to a maximum of .55. In addition. The CR values ranged from .78 to .92 as shown in table 2.

Table 2 AVE and CR of Research Instrument

Dimensions	AVE	CR
Section 1	.38	.78
Section 2	.46	.88
Section 3	.41	.83
Section 4	.55	.92

d) Determination discriminant validity, measured by comparing the square root value of the AVE with the Pearson's correlation coefficient (Pearson's r) of the four essential competencies. The instrument has good discriminant validity If AVE's square root value is greater than the correlation coefficient between that factor and the other factors (Gefen, Straub, and Boudreau, 2000). Using Excel and SPSS, the square root values of AVE for the four essential competencies (.62, .68, .64 and .74) were greater than their correlation coefficients with each of the other factors. For example, Pearson's r for section 1 and the other three dimensions were .52, .33, .40 respectively, all of which were smaller than the square root of AVE for section 1 (.62). and so on, as shown in table 3.

Table 3 Square Root of AVE and Pearson's

Dimensions	Section 1	Section 2	Section 3	Section 4
Section 1	.62			
Section 2	.52**	.68		
Section 3	.33**	.62**	.64	
Section 4	.40**	.67**	.60**	.74

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

Data Collection

This study used the Self-Rating Competency Checklist based on the Southeast Asia Teachers Competency Framework (SEA-TCF) to distribute to all teachers in school via the department heads so that all teachers (179 teachers) in school responded to the self-rating competency checklist.

Data Analysis

In phase one of investigate the level of teachers' competencies, descriptive statistics, including frequencies, mean ($\overline{\mathbf{X}}$), and standard deviation (S.D.) were used to determine the levels of the competencies.

Phase 2 To conduct the professional development program for improving teachers' competency.

Target Group of the Study

This phase of the study was to conduct the professional development program. The school administrators and the researchers used the results from previous phase, select the lowest level of competencies for the professional development program. 160 Thai teachers attended the training program entitled 'Conducting Classroom Action Research'. The methods and activities include lectures, a workshop on writing research proposal, group discussion, and a research report presentation.

Research Instrument

A test for knowledge accumulation was the instrument for this phase of the study. The question items designed by the trainers of the training program that respond to the teaching content. The test comprises 20 items with a true-false checklist related to the contents of the training program was distributed to Thai teachers before and after the professional development program to determine to the participant's knowledge of the topic.

Data Analysis

In this phase a paired samples *t*-test was analyzed for the difference between the pre-test and post-test and whether the professional development program helped increase the competency.

Results and Discussion

To achieve the objectives of the study, the quantitative results collected through the Self-Rating Competency Checklist based on the Southeast Asia Teachers Competency Framework (SEA-TCF). The results of first objective showed in table 4 to table 8.

1. Levels of Teachers' Competencies at a Catholic School in Thailand based on the Southeast Asia Teachers Competency Framework (SEA-TCF)

Table 4 below shows the levels of essential competencies self-evaluated by the teachers in the four areas based on the Southeast Asia Teachers Competency Framework (SEA-TCF)

Table 4 Level of essential competencies of respondents (n = 179)

Essential Competencies	$\overline{\mathbf{X}}$	S.D.	Level of Competency
1. Knowing and understanding what to teach	2.92	0.62	I can do this very well.
2. Helping students learn	3.04	0.59	I can do this very well.
3. Engaging the community	2.99	0.64	I can do this very well.
4. Becoming a better teacher every day	3.26	0.55	I can do this with confidence, and I can teach others.
Overall	**3.05**	**0.60**	**I can do this very well.**

According to the findings, the fourth competency, "Becoming a better teacher every day," was perceived as the highest by the respondents, with $\overline{\mathbf{X}}$ = 3.26 (I can do this with confidence, and I can teach others). The second-ranked competency, "Helping students to learn," had the level of competency of $\overline{\mathbf{X}}$ = 3.04 (I can do this very well). The competency that showed the lowest competency was "Knowing and understanding what to teach," which had the level of competency of $\overline{\mathbf{X}}$ =2.92 (I can do this very well), and closely following was "Engaging the community," which had the level of competency of $\overline{\mathbf{X}}$ = 2.99 (I can do this very well). The overall of teachers' competencies showed $\overline{\mathbf{X}}$ = 3.05 (I can do this very well).

According to the framework, each essential competency comprises several enabling competencies. The following tables show the means ($\overline{\text{X}}$) for each enabling competency related to the essential one.

Table 5 Essential competency for "Knowing and understanding what to teach" (n = 179)

Enabling Competencies	$\overline{\text{X}}$	S.D.	Level of Competency
1. Master my subject content	3.21	0.64	I can do this very well.
2. Use research-based knowledge	2.68	0.61	I can do this very well.
3. Update myself on new educational trends	2.95	0.60	I can do this very well.
4. Study educational policies and how they affect my teaching	2.75	0.64	I can do this very well.
5. Understand how to implement the curriculum	2.93	0.59	I can do this very well.
6. Check new changes in the education environment	2.98	0.64	I can do this very well.
Overall	2.92	0.62	I can do this very well.

Table 5 shows six enabling competencies under essential competency for "knowing and understanding what to teach." The enabling competency for "Master my subject content" was perceived highest by respondents with $\overline{\text{X}}$ = 3.21 (I can do this very well). While the competency that received the lowest score was "Use research-based knowledge," which showed $\overline{\text{X}}$ = 2.68 (I can do this very well). The overall score of this essential competency, "knowing and understanding what to teach," showed $\overline{\text{X}}$ = 2.92 (I can do this very well).

Table 6 Essential competencies for "Helping students to learn" (n = 179)

Enabling Competencies	$\overline{\text{X}}$	S.D.	Level of Competency
1. Identify my students' needs and strengths to help them learn better	3.10	0.54	I can do this very well.
2. Understand how my students learn	3.10	0.58	I can do this very well.
3. Value what makes my students unique	3.28	0.55	I can do this with confidence, and I can teach others.
4. Select appropriate teaching and learning strategies	3.00	0.60	I can do this very well.
5. Design clear and effective lessons my students can understand	2.97	0.64	I can do this very well.
6. Create a positive and caring learning space	3.03	0.62	I can do this very well.
7. Design assessment processes and tools	2.76	0.66	I can do this very well.
8. Monitor my students' progress and provide appropriate support	3.06	0.58	I can do this very well.
9. Use results from assessment to improve instruction	3.04	0.55	I can do this very well.
Overall	3.04	0.59	I can do this very well.

Table 6 shows nine enabling competencies under essential competency for "Helping students to learn." The enabling competency for "Value what makes my students unique" was perceived as highest score by respondents with $\overline{\text{X}}$ = 3.28 (I can do this with confidence, and I can teach others). In comparison, the competency that received the lowest score was "Design assessment processes and tools," which had $\overline{\text{X}}$ = 2.76 (I can do this very well). This essential competency, "Helping students to learn," showed overall $\overline{\text{X}}$ = 3.04, interpreted as 'I can do this very well'.

Table 7 Essential Competency for "Engaging the community" (n = 179)

Enabling Competencies	$\overline{X}$	S.D.	Level of Competency
1. Build a support network	2.74	0.72	I can do this very well.
2. Create a welcoming space	3.08	0.60	I can do this very well.
3. Sustain the partnership	2.98	0.56	I can do this very well.
4. Engage parents and caregivers to be partners in learning	2.82	0.75	I can do this very well.
5. Design learning activities using community conditions, local wisdom, tradition, and knowledge	2.71	0.65	I can do this very well.
6. Accept what makes people different	3.30	0.60	I can do this with confidence, and I can teach others.
7. Practice inclusion and respect in the classroom	3.30	0.61	I can do this with confidence, and I can teach others.
Overall	2.99	0.64	I can do this very well.

Table 7 shows seven enabling competencies under essential competency for "engaging the community." The two enabling competencies, "accept what makes people different" and "practice inclusion and respect in the classroom," were perceived to have the same highest $\overline{X}$ = 3.30 (I can do this with confidence, and I can teach others). While the competency that received the lowest average score was "design learning activities using community conditions, local wisdom, tradition, and knowledge," which had $\overline{X}$ = 2.71 (I can do this very well). Finally, the overall of this essential competency, "engaging the community," was $\overline{X}$ = 2.99 (I can do this very well).

Lastly, table 8 below shows five enabling competencies under essential competency for "becoming a better teacher every day." The two enabling competencies, "nurture my relationships with care and respect" and "be kind and compassionate," were perceived to have the same highest $\overline{x}$=3.36 (I can do this with confidence, and I can teach others). The competency that received the lowest average score was "continue to grow by knowing myself more," which had $\overline{X}$ = 3.17 (I can do this very well). Finally, the overall score of this essential competency, "engaging the community," was $\overline{X}$ = 3.26 (I can do this with confidence, and I can teach others).

Table 8 Essential Competency for "Become a better teacher every day" (n = 179)

Enabling Competencies	$\overline{X}$	S.D.	Level of Competency
1. Continue to grow by knowing myself more	3.17	0.54	I can do this very well.
2. Become more aware and responsible for my emotions and health	3.18	0.60	I can do this very well.
3. Nurture my relationships with care and respect	3.36	0.53	I can do this with confidence, and I can teach others.
4. Be kind and compassionate	3.36	0.54	I can do this with confidence, and I can teach others.

Table 8 (continued)

Enabling Competencies	$\overline{\text{X}}$	S.D.	Level of Competency
5 Inspire my students and colleagues by setting my best example	3.23	0.52	I can do this very well.
Overall	3.26	0.55	I can do this with confidence, and I can teach others.

From the research findings, the level of teachers' competencies at this school was at the level of competency of "I can do this with confidence, and I can teach others" and "I can do this very well," respectively. The highest mean obtained from the fourth essential competency, "Become a better teacher every day," has competency aspects that are related to individual attitudes and perceptions and seems to indicate that teachers at this school are motivated to be better teachers and have a positive mindset towards teaching, students, and their professional growth. According to Shidiq et al (2022) and Heinake and Giatsou, 2020) also reported the trends in developing pre-service teachers' competencies and lifelong learning concepts, teachers are motivated to be better teachers every day. Schools benefit from the results of teachers' competencies in terms of the policy and plan for professional development to improve teacher's skills and competencies as these consequences the students' achievement confirmed by Istiqomah et al. (2019) the teacher competencies have a positive and significant impact on student learning outcomes.

Overall, the four essential competencies from the Southeast Asia Teachers Competency Framework (SEA-TCF) (SEAMEO INNOTECH, SEAMEO, & Teachers' Council of Thailand, 2018) have the competencies in common as others such as knowledge, skills, values, personal characteristics, preparing appropriate lesson plans in line with the school vision and mission, facilitating the development of learner's life and career skills, creating a conducive learning environment, networking with stakeholders especially with parents, and engaging in professional development (Spencer and Spencer, 1993 ; Lane 2022, Southeast Asian Minister of Education, Organization, Innovation, and Technology, 2010). These competencies can be measured and developed.

2. To conduct the professional development program for uplifting teachers' competency

From the levels of competencies obtained from the teachers, the lowest score was from the first essential competency, "Knowing and understanding what to teach," with the specific enabling competency of "Use research-based knowledge" receiving the lowest score $\overline{x}=2.68$, which was interpreted as I can do this very well. In consultation with the school's administrative team, it was decided to address this competency in the training activity through the topic of classroom action research. Trainers of the training program and senior teachers who had successfully carried out action research in their courses were selected to organize and present a module on classroom action research to participants. The training module was organized as a whole-day workshop with the following topics: concept and definition of action research, action research design, and action research analysis and statistics. After the initial information session, teachers were assigned to collaborative groups to discuss and plan action research projects related to their subjects. After suitable collaboration time, teacher groups were asked to present their proposed action research projects to the workshop, where they received comments and suggestions for improvement and effectiveness.

A paired samples t-test was conducted to compare the content knowledge of teachers at the school before and after the professional development activity. There was a significant difference in scores for pre-activity ($\overline{X}$ = 2.17, S.D.=0.88) and post-activity ($\overline{X}$ = 3.88, S.D.=0.61) conditions; t(159)=-32.94, p=.00. Table 9 below shows the statistical results.

Table 9 Statistical results of paired-sample t-test

Paired-sample test	Paired Differences					t	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval				
				Lower	Upper			
Pair 1 Test before – Test after	-1.71	0.66	0.05	-1.82	-1.61	-32.94	159	.00

Note. * p < 0.01

This is a good starting point in developing professional development initiatives at the school, as teachers with positive attitudes towards personal growth are more likely to participate willingly. The design of the training program aims to develop or improve the skills and competencies; Scheeerens (2010) and Day (1999) mentioned the traditional form of professional development as in-service training for teachers, short-term courses, workshops, conferences, coaching, and mentoring. Although teachers may have different preferences in types of professional development, voluntary participation is enhanced for those teachers who have an inherent love for learning and acknowledge the need for continuous growth. Thus, the training program design for this study followed the continuing professional development (CPD), which reflected the need of both individuals and schools (Bubb and Earley, 2007 ; Day, 1999).

The results of the Self-Rating Competency Checklist (SEA-TCF) showed that teachers at this school scored the lowest in the enabling competency of "using research-based knowledge," which was part of the essential competency of 'knowing and understanding what to teach. Conducting classroom action research is an effective way for teachers to bridge theory and practice in their teaching. In addition to improving classroom practice, it leads to overall school improvement. According to Shidiq et al, 2022 ; Shidiq et al., 2022 ; Heineke and Giatsou, 2020 ; Meesuk et al, 2019 ; Hamdoud, 2020) confirmed that the professional development training programs will help develop pre-service teachers' competencies, improving the transformation of classroom practice, the learning of collaborative teachers, enhancing student attainment, knowledge of pedagogical content, knowledge of the subject, teachers' creativity, and experiential training because teaching involves a compelling mixture of art and science,

Nonetheless, the benefits of action research are proven in that teachers can improve their practice by addressing their specific issues, reflecting on them, collecting and analyzing data, and proposing specific and relevant solutions to their context or situation. Unfortunately, research has shown that although teachers know they are required to conduct classroom action research to inform their practice, many teachers do it out of work obligations with less than adequate results as they do not fully comprehend how to carry out classroom action research (Irwandi et al., 2019). In addition to the ability to understand and carry out action research, teachers must be motivated, provided resources, and provided time to do so (Cagaanan and Gosadan, 2018 ; Abelardo et al., 2019).

Conclusion

This study used descriptive research design and the self-rating competency checklist based on the Southeast Asia Teachers Competency Framework (SEA-TCF) to determine the level of teachers' competencies at a private Catholic school in Eastern Thailand. The first phase results in teachers' competencies as knowing and understanding what to teach, helping students to learn, engaging the community, and becoming a better teacher every day, showed at the competency levels of 'I can do this with confidence, and I can teach others' to 'I can do this very well'. Among those teacher's competencies, "knowing and understanding what to teach" with an enabling competency "use research-based knowledge" ($\overline{X}$ = 2.68) had the lowest mean among all competencies. Thus, this competency was selected for professional development to improve teachers' competency in the study's second phase.

The second phase was to develop and measure the effectiveness of an in-school professional development training program. A professional development program was conducted to improve teachers' competency skills, program entitled "conducting classroom action research," and it showed significant improvement results [pre-activity ($\overline{X}$ = 2.17, S.D. = .88), post-activity ($\overline{X}$ = 3.88, S.D. = .61)], teachers gained more knowledge and skill after the training program. This present study was done with the initiative of the school administrators and all teachers were willing to join. In the meantime, the school has set a yearly plan for professional development activity, and results from this study will be implemented continuously.

Contribution

The purpose of developing the Southeast Asia Teachers Competency Framework was twofold. Firstly, it identifies the combination of skills, knowledge, behaviors, and attributes that will lead to effective or better teaching to meet the demands of the 21st century. Secondly, it provides a self-assessment that teachers and schools can use to investigate those areas of competencies that may need improvement. For example, using the Self-Rating Competency Checklist (SEA-TCF) to determine which competencies needed improvement by teachers at this school, the school administrators were able to pinpoint a specific areas and plan for targeted professional development activities. In conducting this study, the school was also able to ascertain other competency areas that could be enhanced in future training projects and concentrate training in specific areas that the school administrators deemed necessary to be immediately improved. Nonetheless, the effectiveness of the professional development activity was not the only benefit obtained; the planning and implementation of the activity, being done by teachers themselves, also showed that the school could effectively use the collaboration of their staff and experienced teachers to develop practical training. As teaching is a complex job that is even more difficult with the changing context of education, all teachers must collaborate and share their knowledge and experience to develop the essential competencies necessary to help students achieve their best in education. This, in turn, will help drive improvement for the school and inevitably lead to better quality education for students as they are effectively educated and prepared to meet future challenges.

Suggestions

This study used the SEA-TCF as the basis for the competencies and was conducted in the context of a Catholic school. The same study could be conducted in other types of schools in Thailand for the identification and improvement of teaching competencies. The identification of teacher competencies can bring about a range of advantages for schools. Competencies can serve as criteria for teacher recruitment. Schools can select candidates whose skills, knowledge and attributes align with effective teaching.

In addition, schools can also use the competencies to provide feedback to teachers and measure their performance and develop targeted professional development programs. By basing teacher evaluations on the expected competencies, the school can develop consistent teaching standards that will lead to equitable outcomes for both teachers and students. This will also lead to decision-making that is based on data and enhance a culture of professional growth in the school.

Future researchers may be interested in looking at other promising areas of teacher competency such as technological competency, assessment competencies, culturally responsive teaching, or language and literacy development. There are many areas involved in teaching, both traditional and emerging aspects of education. By investigating these promising areas, research could yield valuable information to enhance the effectiveness of teacher training and professional development.

Limitation

It is important to note certain limitations within this study. First, the scope is limited to one Catholic school, therefore the identification of the competencies may not be generalizable to other schools in other contexts. This study primarily focused on the identification of competencies using a specific competency framework developed for teachers in the southeast Asian region, which might not be applicable to other teaching environments. Additionally, due to the changing nature of education, new competencies may emerge in response to changing technologies, pedagogical trends, and student needs. Highlight of these considerations, the findings of this study should be interpreted with these limitations in mind and future research could delve into these areas to enhance a better understanding of teacher competencies and their implications.

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