

Exploring the Professional Competence of Pre-Service Teachers: A Case Study

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Teacher professional competence is a critical foundation for effective teaching practice among pre-service teachers. This study examined the professional competence of 50 third-year pre-service teachers at the Faculty of Education, Mahasarakham University. A mixed-methods approach was employed, using a 20-item questionnaire and semi-structured interviews to assess five competency domains: teaching achievement motivation, service-mindedness, self-development, teamwork, and professional ethics. Quantitative data were analyzed using descriptive statistics, while qualitative data were used to enrich the interpretation of results. The findings indicate that pre-service teachers demonstrated overall high levels of professional competence, with particularly strong performance in value-oriented and self-development-related competencies. Interview data further revealed that participants emphasized reflective problem-solving, adaptability in instructional practices, collaboration, and ethical responsibility in their teaching experiences. These results suggest that teacher education programs effectively foster professional dispositions and ethical orientations, while continued emphasis on experiential learning is essential for strengthening practice-based competencies. The study provides insights for enhancing teacher preparation programs to better support sustainable professional development in teacher education.

Keywords: teacher competency, pre-service teacher, teacher education, teaching, learning, teachers

INTRODUCTION

Teachers are recognized as having a pivotal role in shaping engaging learning environments, which significantly impact the quality of instruction and the academic success of students (Gebre et al., 2025; Huang, 2024; Khadim et al., 2023); Kunter et al. (2013). Professional competency development for teachers is currently a critical issue that has gained significant attention and importance at both policy and practical levels, as teachers are considered key factors directly affecting students' learning

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quality and development (Darling-Hammond, 2012; Linsiyah et al., 2023; Stronge, 2018). Recent national reports have also raised concerns about the readiness of new teacher graduates in Thailand, especially regarding classroom management and instructional design, which remain below school expectations (Office of the Teacher Civil & Educational Personnel, 2022; Organisation for Economic & Development, 2023). Competency refers to the quality of being sufficiently qualified both physically and intellectually to perform the duties required in the teaching profession (Ministry of National Education [MEB], 2006, as cited in Balyer (2017). (Gultekin, 2006), competency refers to the fundamental attributes necessary for the successful execution of a profession. Similarly, Parry (1996) defines it as an interrelated set of knowledge, skills, and attitudes that significantly impact job responsibilities and are directly linked to job performance. Competencies can be evaluated using established standards and enhanced through training and development. These definitions suggest that teacher competence should be understood as an integrated construct that combines knowledge, skills, attitudes, and personal attributes that enable effective professional performance. Rather than representing separate perspectives, these conceptualizations collectively emphasize that competence is both developable through training and observable through professional practice. In the context of teacher education, competence therefore extends beyond technical skills to include ethical dispositions, motivation, and continuous self-development. Recent research also highlights that competency development is intertwined with the formation of teacher identity, which evolves through reflective and experiential learning processes in teacher preparation programs (Çetinkaya, 2024). Therefore, Pre-service teachers must develop a range of specific competencies to effectively teach. To acquire these essential skills, it is important that teachers undergo specialized training prior to entering the profession (Kilic, 2010; Şişman & Acat, 2003). Experiential learning plays a crucial role in preparing pre-service teachers within the current Teacher Education Program. It provides them with the opportunity to engage in real-world teaching experiences in an authentic learning setting (Vega, 2008), especially in higher education institutions, which are the primary institutions responsible for producing quality teachers. The Office of the Basic Education Commission (OBEC), which plays a crucial role in establishing educational policies and standards, has emphasized the development of professional teacher competencies by establishing professional teacher standards and ethics. These standards reference McClelland (1973), a Harvard University psychologist, who stated that competency comprises individual characteristics related to outstanding performance, including knowledge, skills, abilities, and other necessary work-related attributes. According to OBEC's assessment criteria, professional teacher competencies consist of five core competencies: 1) achievement motivation, 2) service mind, 3) self-development, 4) teamwork, and 5) teacher professional ethics and morality (The Office of the Basic Education, 2010).

Nguyen (2020); Yin (2019); Zhao and Zhang (2017) report that although practicum experiences allow pre-service teachers to engage in authentic learning, such experiences may not fully develop the competencies required for successful professional practice. This is consistent with findings from Brilliananda et al. (2025), who noted that pre-service teachers often experience persistent challenges in core instructional competencies, such as designing lesson plans and applying pedagogical strategies effectively. Based on research (Corcoran & Tormey, 2012; Kyburienė et al., 2008; Martišauskienė, 2007; Viršulienė, 2014; Zito et al., 2024), it can be concluded that in-service teachers often lack key qualities such as improved self-assessment, self-respect, emotional regulation, the ability to cultivate positive attitudes, manage stress, anxiety, fear, and tension, resolve conflicts and challenges constructively, and tolerate diverse opinions from students. These findings suggest a gap between the competencies expected by teacher education standards and the actual competencies demonstrated by both pre-service and in-service teachers. In the Thai context, several studies have also identified gaps in pre-service teachers' competencies. Research in Northeastern Thailand found that many pre-service teachers still lack essential competencies such as instructional design, classroom management, and reflective practice, indicating that current training may not sufficiently prepare them for real classroom demands (Prasarn & Kunmaneeert, 2021) (Chutopama & Klumgen, 2025). Studies

conducted at Mahasarakham University similarly reported limitations in teaching readiness, particularly in pedagogical decision-making and learner-centered instruction. However, despite growing concerns, no studies have specifically examined the actual levels of professional teacher competencies among pre-service teachers at Mahasarakham University, leaving a clear research gap that this study seeks to address. Although these studies differ in context and methodology, they consistently indicate that practicum experiences alone are insufficient to fully develop professional teaching competencies. Collectively, this body of research suggests a persistent gap between theoretical preparation and the complex demands of classroom practice, particularly in areas requiring pedagogical decision-making and adaptive instructional skills.

In this research, the professional teacher competencies of pre-service teachers are examined in accordance with the five core competencies defined by the Office of the Basic Education Commission (OBEC). In the context of higher education institutions, which play a key role in teacher production, studying the professional competencies of pre-service teachers is critical to ensure that students are developing competencies as specified by the Office of the Basic Education Commission (OBEC). The data derived from this study will be valuable for improving and refining teacher preparation programs to better meet evolving social standards and needs. These studies highlight that professional competence encompasses not only instructional skills but also emotional regulation, self-reflection, and interpersonal capacities. This suggests that teacher competence is multidimensional and requires systematic development across both cognitive and affective domains.

Given the importance of these competencies, this study focuses on examining the professional teacher competencies of pre-service teachers in the Faculty of Education at Mahasarakham University, which is a major teacher training institution in the Northeastern region of Thailand. The assessment of pre-service teacher competency levels and verification of teacher candidate preparation against national competency requirements and local educational standards are the two main purposes of evidence establishment. The findings will be valuable for developing curricula and instructional management to effectively respond to social standards and needs.

METHOD

The participants in this research were 50 pre-service teachers from the Faculty of Education at Mahasarakham University, selected through simple random sampling during January – February 2025.

The researchers selected this sampling approach because all third-year pre-service teachers in the program received identical training and completed their studies from the same academic program thus making each participant equally eligible for selection. The research design reduces selection bias while producing results that accurately represent the entire population of pre-service teachers from the faculty. The research sample consists of a smaller group from the cohort but it provides adequate representation for this exploratory study.

The instrument used was a questionnaire on professional teacher competencies, covering five aspects with a total of 20 items, along with five interview questions.

Data was collected through a Google Form questionnaire distributed to pre-service teachers in the Faculty of Education at Mahasarakham University during January – February 2025.

Data was analyzed using mean and standard deviation to assess professional teacher competencies. The interpretation criteria for mean scores followed Boonchom (2002) scale:

4.51 - 5.00	Highest level
3.51 - 4.50	High level

2.51 - 3.50	Moderate level
1.51 - 2.50	Low level
1.00 - 1.50	Lowest level

The research objectives align with analytical procedures through descriptive statistics, which measure professional teacher competencies at a general level to achieve the study's goal of assessing pre-service teacher competency in five OBEC-defined areas.

The thematic analysis of interview data expanded the quantitative results by showing how pre-service teachers used their competencies during their teaching practice. The research design uses quantitative and qualitative methods to answer all research questions completely while providing deeper insights into the results.

This study employed a convergent mixed-methods design, in which quantitative and qualitative data were collected during the same phase, analyzed separately, and then integrated to provide a comprehensive understanding of pre-service teachers' professional competencies.

FINDINGS

Table 1

Competency in seeking success in teaching.

Questions	\bar{x}	S.D.	Competency Levels
1.1 I can set clear goals for improving my teaching skills.	4.30	0.74	High
1.2 I can adapt to manage challenges that arise in the classroom.	4.28	0.73	High
1.3 I can refine my teaching methods to enhance effectiveness.	4.36	0.66	High
1.4 I can develop teaching methods that align with students' needs.	4.34	0.72	High
Total	4.32	0.71	High

Note. \bar{x} = Mean, S.D. = Standard Deviation

Table 1, which presents professional teacher competency in seeking success in teaching, was found to be at a high level. When considering each aspect individually, setting clear goals for improving teaching skills, adapting to manage classroom challenges, refining teaching methods to enhance effectiveness, and developing teaching methods to align with students' needs were all rated at a high level.

Table 2

Competency in service mind consists of support.

Questions	\bar{x}	S.D.	Competency Levels
2.1 I support students in fully developing their potential.	4.58	0.61	Highest
2.2 I can adjust my thinking approach to meet students' needs.	4.44	0.64	High
2.3 I am committed to creating a learning environment that fosters student progress.	4.54	0.58	Highest
2.4 I practice fairness in providing assistance.	4.66	0.52	Highest
Total	4.55	0.59	Highest

Table 2, which presents professional teacher competency in service mind, consists of support, and was found to be at the highest level. When considering each aspect individually, supporting students in fully developing their potential, commitment to creating a learning environment that fosters student progress, and fairness in assisting were all rated at the highest level. Meanwhile, the ability to adjust thinking approaches to meet students' needs was rated at a high level.

Table 3
Competency in building personal potential.

Questions	\bar{x}	S.D.	Competency Levels
3.1 I am committed to continuous self-improvement.	4.54	0.65	Highest
3.2 I apply newly learned skills to my teaching.	4.52	0.58	Highest
3.3 I participate in activities to enhance my teaching abilities.	4.46	0.68	High
3.4 I recognize the importance of self-development.	4.60	0.57	Highest
Total	4.53	0.62	Highest

Table 3, which presents professional teacher competency in building personal potential, was found to be at the highest level. When considering each aspect individually, commitment to continuous self-development, applying newly learned skills to teaching, and recognition of the importance of self-development were all rated at the highest level. Meanwhile, participation in activities to enhance teaching abilities was rated at a high level.

Table 4
Competency in cooperation at work consists of working with others.

Questions	\bar{x}	S.D.	Competency Levels
4.1 I have the ability to work collaboratively with others.	4.46	0.71	High
4.2 I accept and respect others' opinions.	4.64	0.53	Highest
4.3 I can coordinate smoothly with colleagues.	4.40	0.70	High
4.4 I can communicate effectively when working with others.	4.42	0.73	High
Total	4.48	0.67	High

Table 4, which presents professional teacher competency in cooperation in work, consists of working with others, was found to be at a high level. When considering each aspect individually, accepting and respecting others' opinions was rated at a high level. Meanwhile, the ability to work with others, coordinate smoothly with colleagues, and communicate effectively when working with others. were also rated at a high level.

Table 5
Competency in teacher ethics and morality.

Questions	\bar{x}	S.D.	Competency Levels
5.1 I consistently adhere to the professional code of ethics for teachers.	4.50	0.65	Highest
5.2 I uphold fairness in all teaching-related decisions.	4.56	0.58	Highest
5.3 I prioritize ethical conduct in the teaching profession.	4.60	0.64	Highest
5.4 I serve as a role model in maintaining ethical standards.	4.54	0.61	Highest
Total	4.55	0.62	Highest

Table 5, which presents professional teacher competency in ethics and teacher morality, it was found to be at the highest level. When considering each aspect individually, consistently adhering to the professional code of ethics, upholding fairness in all teaching-related decisions, prioritize ethical conduct in the teaching profession, and serving as a role model in maintaining ethical standards were all rated at the highest level.

Interview

Question 1: If a problem arises during the teaching and learning process, how would you handle it?

Response 1: If a problem arises during the teaching and learning process, I would first analyze the issue to determine its cause. If the problem stems from the teacher, I would review my lesson plan and teaching methods to see whether they are engaging and aligned with students' needs. I might ask students for feedback on whether they like the current teaching style. If they do not, I would explore a

variety of teaching techniques and strategies. Nowadays, there are many technological tools available that can help diversify teaching methods.

Response 2: To handle problems during the learning process, I would start by reviewing the issue to identify its cause. Understanding the root of the problem allows for a thorough analysis and helps in selecting an appropriate solution. My approach consists of three main steps: careful planning with attention to detail, logical reasoning to justify the chosen method, and strict implementation while remaining open to possible mistakes. By carefully considering the problem and selecting the best course of action, I can address the issue effectively and minimize similar challenges in the future.

Response 3: It is important to observe the nature of the problem. For example, if students struggle with reading fluency, I would develop instructional materials or design engaging learning activities to capture their interest. By doing so, I can encourage students to focus more on their learning and improve their skills.

Question 2: How do you provide diverse services to students?

Response 1: In every classroom, students have diverse backgrounds and abilities. Therefore, teachers should employ a variety of teaching methods and techniques that align with this diversity, whether in terms of skills or intellectual capabilities. To accommodate these differences, teachers should adopt an active learning approach, which is widely recognized for engaging students in the learning process.

Response 2: First, it is essential to conduct an assessment, either through tests or observations, to identify the diverse needs of students. This information helps in selecting appropriate teaching strategies and materials that cater to all students in the classroom. Once data is collected, it should be analyzed to determine the best approach, such as student-centered learning or incorporating varied instructional media to address different levels of difficulty in the content. The next step is to assess students' progress and compare pre- and post-learning outcomes. The results can then be used to refine and adapt teaching methods to better support students.

Response 3: I would develop instructional materials that are suitable for diverse learners, ensuring that students receive a well-rounded learning experience that meets their needs.

Question 3: How do you enhance your potential?

Response 1: As a future teacher, continuous self-improvement is essential. I regularly seek out information and research to develop myself, particularly in classroom management and instructional techniques. I firmly believe that if teachers consistently acquire new skills and knowledge, they will enhance their professional capabilities and become highly competent educators.

Response 2: First, I assess myself to identify both my strengths and weaknesses. I focus on improving my weaknesses through additional study and practice. At the same time, I work on refining my strengths by seeking new knowledge and gaining more experiences to further develop my potential.

Response 3: I continuously seek new knowledge through seminars and reading, as these provide valuable insights and fresh perspectives that I may not have encountered before.

Question 4: How do you handle conflicts or differences in opinions?

Response 1: In any workplace, there are always individuals with diverse backgrounds in terms of gender, age, and education. It is important to be open-minded and considerate. When conflicts arise, we should engage in discussions to foster mutual understanding and resolve differences effectively.

Response 2: The first step is to acknowledge and accept differing opinions from colleagues. Then, effective communication is key, as clear and consistent communication helps in processing ideas and reaching a resolution.

Response 3: It is essential to find common ground by identifying the root causes of conflicts. For example, if differences arise regarding work procedures, it is important to agree on established guidelines and ensure that everyone adheres to them. This approach helps maintain efficiency and harmony in the workplace.

Question 5: What do you think is the most important ethical value a teacher should have, and how do you demonstrate it?

Response 1: I believe that compassion and understanding are the most important qualities a teacher should have. Every student has a different background, personality, and learning style. A teacher should be empathetic and approachable, making students feel comfortable seeking guidance and support. When students trust their teachers, they are more open to learning and personal growth.

Response 2: Fairness and humility are essential qualities for a teacher. Since every classroom consists of diverse students, fairness ensures that all students feel equal and valued. To demonstrate this, I practice humility and kindness in my daily interactions, following the principle that "a good example speaks louder than words." By being fair and respectful, I can set a positive example for students to follow.

Response 3: Humility is a key ethical value for teachers. For example, when interacting with elders or colleagues, we should show respect through gestures like a polite greeting or a warm smile. Practicing humility helps us build positive relationships, making it easier to navigate social environments and create a supportive atmosphere in the classroom.

CONCLUSION AND DISCUSSION

The study on the teaching competencies of students from the Faculty of Education, Mahasarakham University, focused on five key areas: striving for teaching success, a service-oriented mindset, personal capacity development, teamwork, and professional ethics. The assessment results indicate that all five competencies align in the same direction. Specifically, the competencies related to striving for teaching success and teamwork were rated at a high level, while a service-oriented mindset, personal capacity development, and professional ethics were rated at a very high level. These findings demonstrate that students from the Faculty of Education at Mahasarakham University possess the necessary competencies to perform effectively and efficiently in the teaching profession. Their skills contribute to fostering student learning and personal development, aligning with the research of Srikham and Seehamongkon (2023) and Phonsri and Nontapa (2023). Therefore, educational institutions should continue to support and enhance these competencies by refining curricula to align with competency development and organizing activities that promote professional teaching skills. This is crucial in preparing education students for their future teaching careers.

The responses from the interviews further reinforce these findings. They emphasize the importance of problem-solving skills, the ability to adapt teaching methods to cater to diverse students, and the role of ethical values like compassion, fairness, and humility in creating a positive classroom atmosphere.

The research results confirm previous studies which demonstrate that teacher competencies function as the primary factor which determines instructional quality and student achievement (Gebre et al., 2025; Huang, 2024; Khadim et al., 2023; Kunter et al., 2013). The pre-service teachers demonstrated high levels of service mind and ethical conduct and personal development which supports Darling-Hammond (2012) and Stronge (2018) and Linsiyah et al. (2023) who state that teacher competency stands as the fundamental factor for educational success. The research results confirm McClelland (1973) framework and Parry (1996) definition because they show that competency includes knowledge and skills and personal attributes which lead to success in the workplace. The research results confirm Balyer (2017) and Gultekin (2006) who demonstrate that competency development

results from uniting cognitive abilities with behavioral competencies which professionals learn during their training.

The research results show that experiential learning produces significant effects but fails to develop advanced classroom competencies according to Kilic (2010) and Şişman and Acat (2003) and Vega (2008). The research findings from Yin (2019) and Zhao and Zhang (2017) demonstrate that pre-service teachers need actual teaching experience to develop their ability to make pedagogical decisions and work with others.

The research results from Thailand confirm the findings of Prasarn and Kunmaneeert (2021) and Chutopama and Klumgen (2025), who discovered ongoing differences between teacher standards and actual teaching competencies during practicum observations. The curriculum at Mahasarakham University demonstrates strong effectiveness in developing value-based competencies, yet needs improvement in providing authentic teaching experiences, which Thai research on teacher readiness has also identified.

The research results also show that university teaching methods help teachers build ethical competencies and motivational skills, and self-development abilities, yet field experiences remain essential for developing advanced pedagogical competencies. Teacher education programs need to achieve equilibrium between theoretical education and high-quality practicum experiences and structured mentorship support.

In conclusion, the research indicates that pre-service teachers at Mahasarakham University fulfill most national competency requirements, yet they need additional training to develop their teaching methods and teamwork competencies. Teacher preparation programs need to lengthen their practicum periods and implement competency-based assessment systems and reflective supervision models to help students develop effective teaching skills. Research needs to study how teacher education program design and length impact teacher competency development through different teacher preparation approaches.

LIMITATION OF THE STUDY

This study has several limitations. First, the sample was drawn from pre-service teachers in a single faculty at Mahasarakham University, which may limit the generalizability of the findings to other teacher education contexts. Second, the study relied mainly on self-reported data, which may be influenced by social desirability bias and may not fully reflect actual teaching practices. Finally, the cross-sectional design does not allow for examination of changes in professional competence over time. Future research should include more diverse samples, incorporate observational or performance-based measures, and employ longitudinal designs to gain deeper insight into the development of pre-service teachers' professional competence.

SUGGESTIONS

The study provides the following recommendations

1. Continuous promotion and development of teacher trainees' abilities in all aspects, particularly in enhancing their potential and teamwork skills.
2. Organize training activities to help develop skills in managing teaching challenges and adapting teaching methods to meet students' needs.
3. Provide support for teacher trainees to develop both academically and ethically, while improving their ability to collaborate with colleagues.
4. Ongoing assessment of professional competencies should be conducted to ensure that teacher trainees can adapt to changes in education.

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