

# Outcomes of the Teaching Professional Practicum: A Mixed-Methods Study on Teacher Competency and Sustainable Development Goals in Physical Education

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## Abstract

This study aims to investigate the outcomes of the teaching professional practicum for fourth-year student teachers at the Faculty of Education, Thailand National Sports University, Chonburi Campus, for the 2024 academic year. The sample, selected through purposive sampling, consisted of 80 participants, including 30 school administrators, 30 mentor teachers, and 20 university supervisors. The research instrument used was a 5-point Likert scale questionnaire, which demonstrated high internal consistency (Cronbach's Alpha = 0.89). Data were analyzed using descriptive statistics, including mean and standard deviation. The findings revealed that the overall outcomes of the practicum were rated at a high level. Among the evaluated dimensions, teacher characteristics received the highest score, followed by instructional management, classroom management, and technology integration, while classroom research was identified as the lowest-scoring dimension. The study highlights the critical role of teacher practicum in advancing SDG 4 (Quality Education) and suggests that enhancing digital competencies is vital for sustainable educational development. These results suggest that while student teachers exhibit a strong professional identity, there is still a need for further emphasis on research-based instruction for future curriculum development.

**Keywords:** Teaching Practicum, Student Teachers, Teacher Competency, Professional Development, Physical Education.

## Introduction

The preparation of high-quality teachers is a fundamental mechanism for enhancing educational standards and ensuring that student teachers are adequately equipped to perform effectively in the teaching profession. A central component of this preparation process is the *teaching professional practicum*, during which student teachers integrate theoretical knowledge into authentic classroom practice. This period enables them to develop competencies in instructional management, assessment, and adaptive classroom decision-making under the supervision of experienced mentor teachers.

In the twenty-first century, teachers face unprecedented challenges arising from rapid social and technological transformations. Consequently, contemporary educators must possess not only strong academic knowledge but also flexible pedagogical skills that respond effectively to learners in the digital era. This is particularly relevant for Generation Z students, whose learning behaviors and expectations are shaped by technological innovation. Hoo et al. (2024) emphasize that digital adaptation in physical education requires careful consideration of learners' motivation and technology acceptance. Furthermore, enhancing teacher competency is a crucial mechanism for achieving the United Nations Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), which promotes inclusive, equitable, and lifelong learning opportunities. In the Thai context, the successful advancement of SDG 4 requires systematic management approaches that explicitly integrate well-being dimensions into educational curricula (Lertatthakornkit et al., 2025). Additionally, the relationship between school leadership and equitable, high-quality learning management in the twenty-first century warrants further scholarly attention (Awwigitkul & Phetmalhkul, 2024).

Within the context of physical education, the development of student teacher competencies contributes not only to educational quality but also directly to SDG 3 (Good Health and Well-being), as physical education teachers play a pivotal role in establishing sustainable health foundations for youth. Physical education serves as a platform for cultivating holistic competencies, including discipline, teamwork, and health awareness (Bailey et al., 2009). Therefore, contemporary physical education teachers should develop competencies in five key areas: (1) learner-centered instructional management, (2) digital technology integration, (3) communication skill enhancement, (4) life skills promotion, and (5) adaptive flexibility. Educational innovation that integrates physical activity with psychological and aesthetic dimensions can foster a holistic and sustainable learning ecosystem (Santaveesuk, 2026).

Despite the recognized importance of the teaching practicum, previous studies in Thailand have identified significant challenges, including limited educational resources and insufficient classroom management skills among student teachers. These issues represent critical constraints that must be addressed to align teacher education programs with system-level educational policies emphasizing quality and sustainable well-being.

In response to these needs, this study aims to investigate the outcomes of the teaching professional practicum among fourth-year student teachers in the Faculty of Education at Thailand National Sports University, Chonburi Campus, during the 2024 academic year. The empirical findings are intended to inform the development of physical education teacher preparation programs that align with contemporary educational demands and sustainable development frameworks. Moreover, the study supports the necessity of advancing toward internationalization and digital adaptation standards, which have been identified as critical competency gaps in recent research (Zhao & Sirathanakul, 2025).

## Literature Review

The literature review focuses on three principal dimensions.

First, the integration of theory and practice in teacher preparation is

widely recognized as a critical factor in effective teacher education programs. The translation of theoretical knowledge into professional practice constitutes a core mechanism for developing competent teachers. Sustainable professional growth emerges through reflective practice and continuous supervision, which enable student teachers to critically examine their instructional decisions and refine their pedagogical approaches over time.

Second, essential competencies for teachers in the twenty-first century include learner-centered instructional management, effective technology integration, the cultivation of positive interpersonal relationships, and the promotion of higher-order thinking skills. These competencies reflect the evolving demands of contemporary education systems, where teachers must adapt to diverse learners and rapidly changing technological environments.

Third, challenges within the Thai teaching practicum context have been identified in prior studies. These include limitations in instructional resources particularly in physical education—along with the need to strengthen classroom management skills and diversify assessment strategies. Addressing these constraints is essential for enhancing the overall effectiveness of teacher preparation programs in Thailand.

### Research Methodology

This study employed a mixed-methods research design. The population consisted of 129 individuals, from which a purposive sample of 80 participants was selected in accordance with the sampling criteria suggested by Hair et al. (2010).

The research instruments included a five-point Likert scale questionnaire covering five dimensions: (1) teacher characteristics, (2) instructional management, (3) classroom management, (4) technology integration, and (5) assessment and evaluation. In addition, semi-structured interviews were conducted to obtain in-depth qualitative insights.

Quantitative data were analyzed using descriptive statistics, specifically mean and standard deviation. Qualitative data were analyzed through content analysis to identify key themes and patterns related to the outcomes of the teaching professional practicum.

### Results

The findings regarding the outcomes of the teaching professional practicum among fourth-year student teachers at the Faculty of Education, Thailand National Sports University, Chonburi Campus, can be summarized as follows:

**1. Demographic Characteristics of Respondents.** Data were collected from a sample of 80 participants. The majority of respondents were male (75.00%). When categorized by professional role, school administrators and mentor teachers each accounted for 37.50% of the respondents, while university supervisors represented 25.00%. This distribution reflects empirical input from key stakeholders across both administrative and instructional levels within educational institutions.

**2. Evaluation of Teaching Practicum Competencies.** Overall, student teachers' competencies across all dimensions were rated at a high level ( $M = 4.20$ ,  $SD = 0.53$ ). When ranked from highest to lowest mean scores, the findings reveal the following noteworthy patterns:

**1st Rank: Teacher Characteristics ( $M = 4.35$ ).** This dimension received the highest mean score, indicating the successful cultivation of professional identity and teacher ethos. The finding aligns with Darling-Hammond (2006), who emphasizes that ethical commitment and positive professional attitudes constitute the foundation of effective teaching.

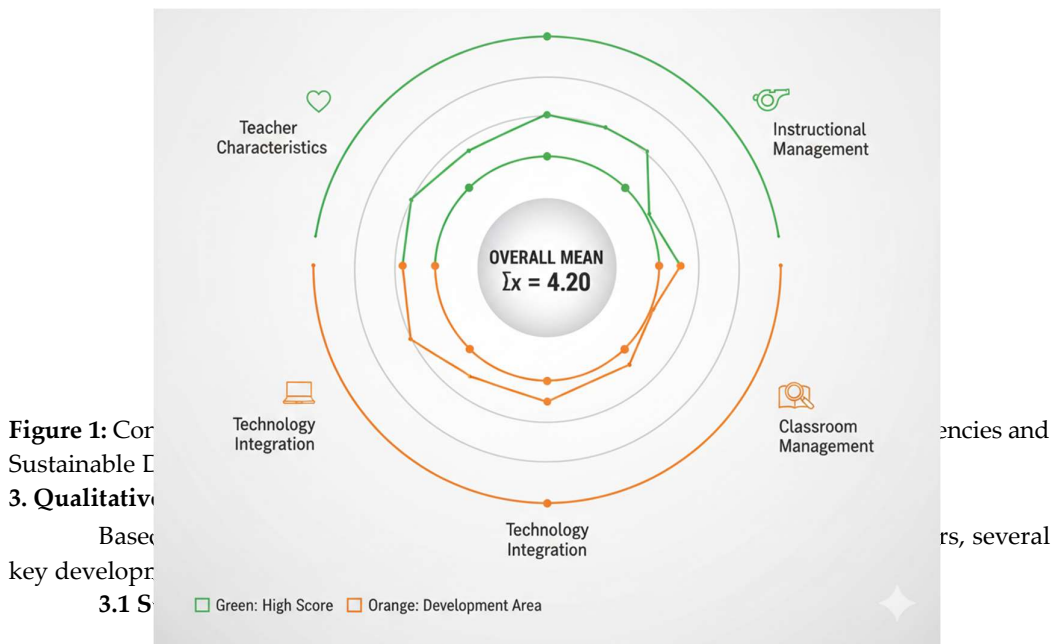
**2nd Rank: Instructional Management ( $M = 4.28$ ).** Student teachers

demonstrated the ability to effectively translate theoretical knowledge into practical application within physical education classes.

**3rd Rank: Assessment and Evaluation (M = 4.22).** Participants exhibited competency in assessing students' authentic learning development and performance.

**4th Rank: Classroom Management (M = 4.12).** The results indicate adequate skills in classroom control and situational problem-solving. Although rated at a high level, this dimension suggests the need for further experiential refinement to achieve advanced proficiency.

**5th Rank: Technology Integration (M = 4.05).** While still rated at a high level, technology integration received the lowest mean score among all dimensions. This finding corresponds with Phakamas (2023), who notes that disparities in digital infrastructure within educational institutions represent a significant barrier preventing physical education student teachers from fully utilizing technological resources.



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volunteer spirit, which are highly valued competencies within Thai schools. In addition, they exhibited precise physical technical skills, enabling them to serve as effective role models in demonstrating movement techniques and sports skills to students. These competencies represent fundamental components in enhancing educational quality in alignment with SDG 4 (Lertatthakornkit et al., 2025). Their ability to model correct physical performance contributes directly to effective learning experiences in physical education settings.

### 3.2 Areas for Improvement and Emerging Findings

**Classroom Research for Learning Development.** The findings indicate that student teachers lack systematic integration of classroom problems into structured research processes. This observation aligns with Collins (2019), who argues that the transition from “instructor” to “learning manager” requires analytical thinking grounded in research practices. Strengthening classroom research competencies would enable student teachers to implement evidence-based instructional improvements.

**Academic Depth.** Although student teachers performed strongly in practical instruction, their theoretical explanations during classroom teaching were often insufficiently rigorous. This suggests a need to enhance pedagogical competencies that integrate sport science knowledge more explicitly into physical education instruction

(Santaveesuk, 2026). Greater academic depth would strengthen conceptual clarity and improve instructional effectiveness.

**Professional Personality and Presentation.** Interviewees emphasized the importance of appropriate professional attire and contextual awareness, particularly distinguishing between field practice uniforms and formal academic dress. Such distinctions are essential for reinforcing credibility and cultivating a professional image as educational practitioners.

**Table 1. Analysis of Reflected Competencies from Stakeholders (School Administrators and Mentor Teachers)**

Dimension	Strengths	Areas for Improvement
<b>1. Professional Skills</b>	<ul style="list-style-type: none"> <li>• Demonstrates strong responsibility and volunteer spirit</li> <li>• Accurately demonstrates movement and sports skills, serving as an effective role model for students</li> </ul>	<ul style="list-style-type: none"> <li>• Delivery of theoretical content with greater depth and clarity</li> <li>• Application of sport science knowledge in instructional practice</li> </ul>
<b>2. Management</b>	<ul style="list-style-type: none"> <li>• Effectively adapts to unexpected situations</li> <li>• Possesses a strong professional identity and teacher ethos</li> </ul>	<ul style="list-style-type: none"> <li>• Development of systematic classroom research skills</li> <li>• Utilizing classroom problems as structured data for improvement planning</li> </ul>
<b>3. Tools &amp; Innovation</b>	<ul style="list-style-type: none"> <li>• Exhibits a positive attitude toward the use of educational technology</li> <li>• Shows readiness to learn and adopt new digital tools</li> </ul>	<ul style="list-style-type: none"> <li>• Limitations in digital infrastructure within schools (Digital Divide)</li> <li>• Developing innovative solutions to address resource constraints</li> </ul>

**Additional Observation.** The findings indicate that student teachers possess a high level of Psychological Capital and maintain positive attitudes toward the teaching profession (Prompanyo, 2024). However, they continue to require further support in academic skill development and the effective use of modern technologies in order to design innovative learning approaches that align with the lifestyles and learning characteristics of Generation Z students (Hoo et al., 2024).

## Discussion

Based on the investigation of student teachers' competencies during the teaching professional practicum, several significant issues can be discussed as follows:

### 1. Professional Identity and the Advancement of Sustainability

The findings indicate that student teachers possess a strong professional identity, particularly in the dimension of teacher characteristics, which serves as a foundational element in advancing educational quality in alignment with Sustainable Development Goal 4 (SDG 4). The presence of teacher ethos and positive professional attitudes corresponds with Prompanyo's (2024) assertion that Psychological Capital is a crucial factor enhancing teacher performance in the digital transition era. Such positive dispositions enable student teachers to cope with professional pressures and remain committed to continuous learner development amid ongoing societal changes.

Furthermore, recent studies emphasize the need to examine the role of

modern technology and psychological factors in promoting educational quality and mental well-being in the digital age (Santaveesuk et al., 2025). This suggests that professional identity must be reinforced not only through ethical commitment but also through adaptive capacities that respond to technological transformation.

## 2. Digital Divide and Technological Competency

Despite overall high competency ratings, technology integration remains a critical area of weakness, reflecting structural challenges within the Thai education system. In particular, the issue of the Digital Divide in educational institutions continues to hinder effective technology utilization. This observation aligns with Lertatthakornkit et al. (2025), who argue that achieving sustainable education management in Thailand requires systemic strategies to reduce disparities in access to digital infrastructure and technological resources.

If student teachers are not sufficiently supported with digital tools during their practicum experience, their capacity to design innovative learning environments responsive to Generation Z learners—who demonstrate high expectations for technological engagement—may be significantly constrained (Hoo et al., 2024).

## 3. Bridging Theory and Practice: Advancing Toward Classroom Researcher Roles

The study also reveals a persistent gap between theoretical knowledge and practical implementation. Student teachers tend to prioritize immediate classroom problem-solving rather than employing deeper theoretical frameworks for long-term instructional planning. This finding underscores the necessity of strengthening Classroom Research competencies to elevate student teachers from the role of “Instructor” to that of a “Professional Learning Manager.”

Such a transformation would enable them to systematically analyze classroom challenges and develop evidence-based innovations to enhance student learning. This approach represents a central pillar of twenty-first-century teacher development and is essential for achieving sustainable educational outcomes (Santaveesuk, 2026).

Additionally, other research highlights the importance of integrating digital tools for authentic assessment within Thailand 4.0 educational contexts (Jaroenrith, 2024), reinforcing the need for technologically grounded evaluation practices in contemporary schools.

## Conclusion and Recommendations

### 1. Conclusion

This study presents empirical evidence regarding the outcomes of the teaching practicum of fourth-year student teachers from the Faculty of Education, Thailand National Sports University, Chonburi Campus, Academic Year 2024. Overall, the findings indicate that student teachers demonstrated a significantly high level of competency, particularly in teacher characteristics and instructional management. These results reflect the success of the program in cultivating professional identity and practical teaching skills.

However, the study also reveals a notable **competency gap** in the areas of technology integration and classroom research, both of which are critical skills for functioning as effective learning managers in the digital era. Strengthening the connection between theory and practice through **reflective practice** and high-quality supervision mechanisms is therefore essential in preparing physical education student teachers to perform effectively and adapt to global educational transformations.

### 2. Recommendations for Development

To ensure that the preparation of physical education teachers aligns with twenty-first-century competency standards and sustainable development frameworks, the following recommendations are proposed:

**Digital Competency.** Specialized workshops focusing on **Physical**

**Education Technology** should be organized to enable student teachers to systematically apply digital tools for health monitoring and learner engagement enhancement. Additionally, conceptual frameworks for **cloud-based learning** and **collaborative coaching** should be developed to strengthen digital competencies among university students in Thailand (Pholraksa et al., 2024).

**Research and Innovation.** Classroom Research methodologies should be formally integrated as a core component of the teaching practicum. This integration would transform student teachers from being merely instructors into **educational innovators** capable of addressing learner challenges through evidence-based practices.

**Professional Identity and Social Skills.** Institutions should promote the development of professional personality traits and positive communication skills to foster strong relationships with parents and local communities.

**Sustainability (SDGs).** Higher education institutions should integrate the concept of **Education for Sustainable Development (ESD)** into the practicum curriculum. Emphasis should be placed on designing learning activities that connect with **SDG 3 (Good Health and Well-being)** and environmental responsibility, thereby establishing a concrete foundation for sustainability through physical education.

**RECOMMENDATIONS FOR DEVELOPMENT  
 Future-Proofing Physical Education Teachers**

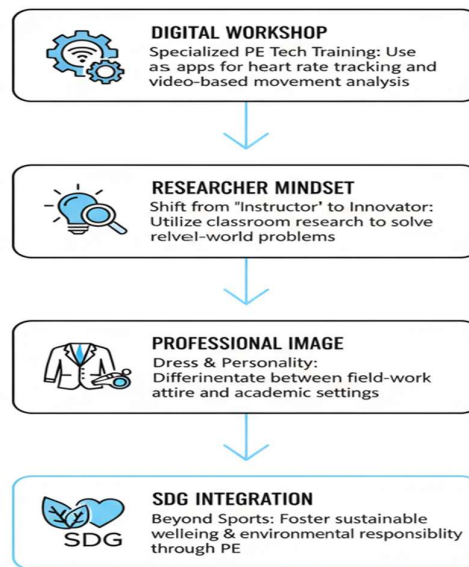


Figure 3: Strategic Roadmap for the Digital Era and

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**Summary** In s teachers but also highli; to overcome challenges technological and research competencies will be crucial in preparing professional physical education teachers who are capable of genuinely driving sustainable educational quality.

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