
A Feasibility Study of Competency-Based Approaches in Teacher Education Program

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Abstract

The development of the teaching profession is important in developing and preparing young people to face the changes of the future world. This research aims to find out the feasibility of a program to enhance the competency of teacher students. The method is the synthesis of information obtained from the study of documents, concepts, and theories related to the development of student teacher competencies. The target audience is 23 qualified experts drafting the tentative program. The tools used in the research were the outline of the student teacher capacity building program and the questionnaire. The statistics used in the data analysis are mean and standard deviation. The results showed that the composition of the program consisted of 7 elements including: importance, objectives, goal, methods, program structure, teaching and learning management, and measurement and evaluation. The results of the evaluation of the feasibility of the program in 2 rounds showed that each topic was evaluated at the level of high suitability and highest suitability. The improvement in the second round shows the increased consistency and acceptance of variance evaluators. This indicates that the evaluators have a more consistent opinion. The results of the evaluation reflect that the program is appropriate and has been developed according to the opinions of the experts.

Keywords: Feasibility, Program Development, Suitability, Teacher Development

1. Introduction

The role of teachers in the 21st century is to act as a supporter to help learners develop themselves to their full potential and promote lifelong learning because today's technology is changing rapidly and cutting-edge. Therefore, people in the new era have to learn new things all the time. Teachers in the 21st century must adapt to rapidly evolving technologies and apply them effectively to meet students' needs (Yuting et al., 2022; Umalihayati, 2023). They should start with the education system, which means developing the competency of teacher students. Also, they must develop by leaps and bounds to keep up with the modern world. They must develop themselves in the field of academic technology and innovative instructions (Machmud et al., 2021;

Prachagool & Nuangchalerm, 2021). Innovation to develop learners to have more knowledge and understanding of lessons and can also be considered as a teacher who is always self-improvement (Vetsawat et al., 2024).

According to the Regulations of the Council of Teachers on Professional Standards (No. 4) B.E. 2562 (2019), 2020) from the problems and importance of professional standards in education and the importance of competency according to teacher professional knowledge and experience standards that teacher production institutions must carry out. It is very important to promote the competency of teacher students because the fact that the teacher production institution can produce students with the competency. Teacher professional standards are an indication of the quality of the teacher production institution.

Teachers have obligations in the ever-shifting landscape of education that are increasingly challenging and complex. Programs for teacher training have to provide future teachers the skills they need to succeed in their area of work as classrooms (Nufus et al., 2023; Darling-Hammond et al., 2024). Along with learning theoretical knowledge, teacher candidates grow in the practical skills and attitudes required for effective instruction. One of the main areas of focus now in teacher preparation courses is competence development (Mohammadi, 2021; Romijn et al., 2021; Fischer et al., 2022; Jentsch & König, 2022). This paper examines the feasibility of incorporating competency-based methods into teacher preparation courses. Modern instructors must develop critical abilities like classroom management, lesson planning, communication, and practice analysis.

Understanding the viability of competence promotion in teacher education programs is not only pertinent but also vital as the need for highly qualified and flexible teachers keeps growing. This research intends to study teacher preparation by clarifying how competency-based approaches could support the development of confident, capable, and competent teachers in the twenty-first century. Therefore, the researchers interested in developing a program to promoting the competency of teacher students. It helps them to have the ability to practice professional practice in educational institutions and apply it more in the future of work. Also, they will have the necessary learning skills to face the modern world of education and adaptation.

2. Research Methodology

This study was conducted in two main phases as outlined below:

Step 1: Document Analysis

The researchers conducted an in-depth review of relevant literature, including concepts, principles, and theories related to teacher development programs. This review informed the identification of essential program components and guided the initial program design.

Step 2: Expert Evaluation

The draft program was submitted to a panel of 23 qualified experts in teacher education for evaluation. A two-round Delphi technique was employed to assess the program's suitability and feasibility in promoting teacher competency.

In Round 1, experts completed a structured questionnaire that included Likert-scale items on program suitability and open-ended questions for qualitative feedback and suggestions.

In Round 2, the revised program was reassessed using a second questionnaire focusing on agreement levels regarding the program's appropriateness.

Data were collected via Google Forms between May 1 and June 15, 2024. Quantitative data were analyzed using mean (\bar{x}) and standard deviation (SD), while qualitative responses from open-ended questions were examined using content analysis. The findings from both rounds were used to confirm the validity and appropriateness of the program.

3. Result and Discussion

The feasibility analysis of the draft program designed to promote competency in teacher education students was evaluated by experts and is summarized in Table 1. The experts rated the program's components as having high to highest levels of suitability.

Table 1. The Feasibility Analysis

Evaluation	1st round			2nd round		
	\bar{x}	SD	Suitability level	\bar{x}	SD	Suitability level
1. Importance	4.24	0.89	High	4.59	0.54	Highest
2. Objectives	4.49	0.72	High	4.70	0.45	Highest
3. Goals	4.52	0.84	Highest	4.83	0.37	Highest
4. Methods	4.28	0.86	High	4.69	0.46	Highest
5. Program structure	4.39	0.76	High	4.59	0.61	Highest
6. Teaching and learning management	4.47	0.83	High	4.69	0.49	Highest
7. Measurement and evaluation	4.18	1.02	High	4.48	0.70	Highest
Overall	4.37	0.85	High	4.63	0.53	Highest

The results in Table 1 show that expert evaluations of all program components improved from the first to the second round. In both rounds, the overall suitability was rated highly, with a shift towards greater consensus and stronger agreement in the second round, as indicated by the decreased standard deviation.

In the first round, mean scores ranged from 4.18 to 4.52, suggesting general agreement on the quality of the program, though some variability in perceptions was present. The "Goals" component received the highest initial rating ($\bar{x} = 4.52$, $SD = 0.84$), reflecting strong alignment with the desired learning outcomes for teacher development. Other high-performing components included "Objectives" and "Teaching and Learning Management", indicating their critical roles in ensuring effective teacher preparation.

By the second round, every component showed improved mean scores and reduced variability, signifying increased consensus among experts. Notably, "Importance" rose from 4.24 to 4.59, and "Methods" improved significantly to the highest level of suitability, suggesting the revisions made in response to initial feedback were well-received.

The "Program Structure" and "Measurement and Evaluation" components also transitioned from high to highest suitability. This improvement reflects both the flexibility of the program's design and the enhanced alignment between its structure and intended outcomes. The overall mean increased from 4.37 to 4.63, further validating the program's potential to support competency-based education for future teachers.

Qualitative Feedback can be reported based on the additional expert feedback provided valuable insights into each component:

- Program Importance: Experts emphasized that the program addresses current gaps in teacher competencies and recommended aligning it more closely with real-world teaching challenges. Incorporating strengths and weaknesses of current student teachers can enhance its relevance and appeal.
- Objectives: Reviewers advised clarifying the purpose of the program and differentiating it from traditional instruction. Explaining the meaning of each targeted competency could strengthen alignment with the goals.
- Goals: Recommendations included revising goal statements for grammatical clarity (e.g., using noun phrases) and ensuring consistency with related components such as community involvement and parental engagement.
- Methods: Experts suggested that methods should prioritize practical implementation. They recommended including more detailed explanations and trialing the curriculum with non-target groups before broader application.
- Program Structure: The structure should explicitly connect to knowledge, assessment, and measurable outcomes. Activities should reflect the dynamic nature of the classroom and include problem-solving, case studies, and classroom research.
- Teaching and Learning Management: Suggestions included improving the readability and flow of instructional steps. Teaching models should clearly articulate each stage based on the program structure.
- Measurement and Evaluation: Concerns were raised regarding alignment between the program's goals and the assessment methods. Experts recommended refining the balance of assessment types and ensuring comprehensive measurement of competencies.

Numerous studies have developed both professional and emotional competencies in teachers (Aldrup et al., 2022; Kaye et al., 2022; Li et al., 2022; Ventista & Brown, 2023). These competencies are foundational for navigating diverse educational environments (Dathong et al., 2024). Programs that foster student participation and emphasize learning outcomes are more likely to improve instructional effectiveness. Improved instructional effectiveness enhances student engagement and promotes a positive learning atmosphere, which is vital to achieving academic success. Educators equipped with both professional and emotional competencies are better prepared to adapt their teaching methods to meet the unique needs of their students (Kadel, 2023).

Despite the significance of competency-based approaches, integrating them into teacher training remains challenging. This program offers a viable model by incorporating essential elements such as clear objectives, structured content, targeted teaching strategies, and robust assessment. Experts highlighted that teacher preparation must involve reviewing curriculum documents and designing teaching strategies that reflect both theoretical and practical dimensions (Stern et al., 2021; Farhang et al., 2023; Small & Belluigi, 2024; Kutthalaeng & Nuangchalerm, 2025). This aligns with the "iceberg model" of competencies, which suggests that observable skills (the visible tip) are influenced by deeper, less visible traits like motivation, values, and attitudes.

4. Conclusion

The feasibility study of competency development within teacher education courses demonstrates significant potential to enhance teacher students' professional readiness. Across two rounds of evaluation, the iterative assessment process revealed consistent increases in both mean scores and suitability levels across all dimensions, indicating growing consensus among experts. These results highlight a strong alignment between the program's design and its intended outcomes. Notably, the shift from "high" to "highest" suitability in most criteria reinforces the importance of incorporating competency-based frameworks into teacher preparation programs.

The findings affirm the viability of competency-based methods in teacher education and offer actionable insights for program designers, policymakers, and educators. Prioritizing competency development equips future teachers with the necessary skills to meet the diverse and evolving needs of contemporary classrooms. Ultimately, this research contributes to the broader discourse on teacher education by emphasizing the transformative role of competency-based approaches in preparing adaptable, effective, and qualified educators for 21st-century learning environments.

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