

## **THE DEVELOPMENT OF CURRICULUM MODEL OF PRE-SERVICE TEACHER PROFESSIONAL EDUCATION PROGRAM**

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### **Abstract**

The focus of this study was to develop a curriculum model that would comply with the regulations governing professional teacher programs. Some problems in implementing vocational teacher professional education are, among others, that the curriculum is not yet optimal to integrate learning experiences between theory and practice, learning to teach, practice in practice in schools and industry, and systemic collaboration between vocational teacher professional education organizing universities, partner schools, and the industry and business world is not yet optimal. The overall goal of this research is to create a vocational Pre-Service Teacher Professional Education curriculum model that aligns with the role of technical and vocational education in Indonesia. The specific purposes of this study include gathering information on the current conditions surrounding the implementation of vocational teacher professional education, designing sustainable vocational teacher professional education curriculum models to produce professional vocational teachers that meet the field's needs, and formulating procedures for implementing a continuous vocational teacher professional education curriculum model. This study employs research and development methods. Questioners, interviews, focused group discussions, and documentation studies were used.

Keywords: Curriculum model, Development, Professional teacher education for vocation, Service teacher, Vocational school.

## 1. Introduction

The quality of a nation's education is significantly influenced by the quality of its teachers [1-5]. Teacher education is considered a crucial factor in ensuring the success of a national education development system [6]. The quality of teachers is the main factor affecting the quality of educational systems. In teacher education, the mastery of theory, method, and learning strategy should be linked with how prospective teachers learn in school, considering all social and cultural backgrounds [7, 8].

In Indonesia, the government has been working on technical and vocational education and training (TVET) reform under a 20-year plan, which has been carried out with a more technological emphasis by the new government [9]. The Ministry of National Education has increased investments and made TVET expansion a priority, while vocational schools are being managed from districts to provincial control to improve coherence and drive reform [10].

The quality of teachers and trainers greatly influences the effectiveness of TVET institutes in generating qualified and skilled workers [11-16]. To support this policy, the President of the Republic of Indonesia issued Presidential Instruction Number 9 of 2016 on the Revitalization of vocational high schools to improve the quality and competence of human resources [17].

To provide qualified vocational teachers, the revitalization of the TVET system is compulsory and includes improving recruitment patterns of prospective teachers, revitalizing vocational education in institution, and improving the quality of educational interactions and relationships between teachers and students [18]. Technological development has significantly influenced the type of TVET programs needed and the teaching and learning strategies employed by TVET teachers, making it unique from other areas of teaching [19, 20].

## 2. Method

This research method combines qualitative and quantitative methods, focusing on vocational and technology education. Participants include experts, teachers, curriculum developers, policymakers, and teacher trainees. Data collection methods include literature review, interviews, surveys, focus groups, and observation. Qualitative data analysis involves thematic analysis of interview transcripts and focus group discussions, while quantitative data analysis involves statistical analysis of survey data. The curriculum development process involves identifying specific needs and gaps in current programs and mapping out competencies required for teachers [21-25]. A draft curriculum model is developed, integrating theoretical knowledge with practical skills [26-30]. Validation is conducted with stakeholders, and the model is implemented in a select program. The model is evaluated through feedback, performance assessments, and outcomes.

Ethical considerations include obtaining informed consent, ensuring confidentiality and anonymity of data, and addressing potential conflicts of interest. The expected outcomes include a validated and comprehensive curriculum model for vocational and technology teacher education, recommendations for implementation across different educational settings, and a framework that can be adapted to other programs globally.

### **3. Results and Discussion**

Pre-service teacher preparation programs are usually offered to general secondary school teachers but can also be placed in vocational high schools [31-35]. Pre-service teacher education institutions play two important roles in the era of national sustainable development: providing training opportunities and career development for secondary school graduates to become prospective teachers in vocational high schools [36]. The government has developed efforts to revitalize TVET teacher training faculties to produce skilled graduates from TVET [37].

One of the TVET system programs in Indonesia is the Pre-Service Teacher Professional Education program or also called Pre-Service Teacher Professional Education [38]. This two-semester higher education program prepares prospective teachers with competencies in planning, implementing, and evaluating learning, following up on assessment results, guiding and training students, and conducting research. The purpose of the Pre-Service Teacher Professional Education program is to produce prospective professional teachers in each unit and type of school that is designed and implemented periodically to meet the principles of quality starting from the selection process, learning, assessment, and competency tests [39]. It is expected to produce prospective professional teachers in each unit and type of school. Prospective student selection policy [40].

This program consists of two parts, namely the Pre-Service Teacher Professional Education Service Program which has a study load of 36-40 credits and is implemented in two semesters, and the Pre-Service Teacher Professional Education Service Program which has a study load of 24 credits and is implemented in one semester. Vocational education not only teaches science and technology, but also psychomotor skills, which requires teachers to have the skills needed to provide these skills in real life in various industries [41].

TVET Center of Excellence is developing several programs under the auspices of TVET COE, including revitalization of the TVE Teacher Professional Education Program, Applied Approach (AA), and PEKERTI Program for Vocational Lecturers in Universities or Polytechnics, as well as various short trainings and workshops for existing VHS Teachers. There are two alternative models of the Vocational Teacher Education System, namely the Totally Integrated Vocational Teacher Education System and the Partially Integrated Vocational Teacher Education System. The totally integrated system has a curriculum structure of 80-96 credits, with a pedagogical weight of 56-64 credits.

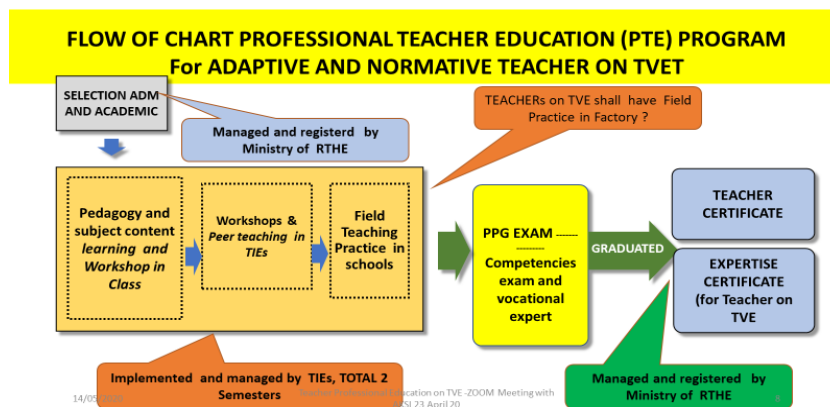
The partially integrated system maintains the Bachelor's and Pre-Service Teacher Professional Education ~~programs, but~~ programs but automatically has a direct link between the two. The new Pre-Service Teacher Professional Education model aims to strengthen literacy, numeracy, character, independent learning, Pancasila students, improve the education ecosystem, and strengthen understanding of the socio-cultural environment and the living environment of students and schools. Pre-Service Teacher Professional Education courses include in-depth study of pedagogical materials and fields of study, development of learning tools, and PPL. Online models (synchronous and asynchronous) with LMS are used to implement the program. Matriculation is mandatory for graduates of S1/D IV Non-Education in the same field of expertise in the Pre-Service Vocational Teacher Professional Education program.

The Pre-Service Vocational Teacher Professional Education Program aims to transform teacher professional education by focusing on learning principles such as learning through activities, student activities, higher-order thinking, and mentoring impacts. The learning system must also incorporate higher-order thinking skills, such as critical, creative, logical, reflective, problem-solving, and decision-making, both during workshops and professional experience practices. The learning process must also accommodate efforts to achieve a nurturing effect, helping to develop students' attitudes and personalities as teachers.

The Pre-Service Vocational Teacher Professional Education Program aims to transform teacher education by focusing on learning principles, activities, high-level thinking, and mentoring. It aims to develop students' attitudes and personalities as teachers. To increase the profession's attractiveness, universities should build a comprehensive selection system, provide continuous guidance and mentoring, and emphasize early exposure to vocational teacher competencies. S1 graduates need a two-semester professional education program, such as the Teacher Professional Program (KKNI Level 7).

There are several alternatives proposed for the implementation of in-service Vocational Pre-Service Teacher Professional Education, including Vocational Pre-Service Teacher Professional Education can be implemented by institutions outside of Vocational Pre-Service Teacher Professional Education that have the authority to develop the profession in a sustainable manner (in collaboration with associations and the industrial world). Professional development of teachers in vocational positions can be carried out in various forms, such as regular teacher training, courses, seminars, workshops, study assignments, or independent study, with the results in the form of a tested portfolio.

Based on the information above, it is necessary to clarify what is lacking in pre-service teacher education and certification in the Pre-Service Teacher Professional Education program for vocational high schools. Adaptive and normative teachers are trained through non-vocational education studies. They are trained through Pre-Service Teacher Professional Education according to the subjects they have mastered. In terms of the program, adaptive and normative teachers are trained with a flow diagram and mechanism as in Fig. 1.



**Fig. 1. Flowchart of pre-service teacher professional education for adaptive and normative teachers on TVET.**

At the same time, the establishment of the Center of Excellence in the field of TVET is underway [42]. Some of the most successful programs in the field of TVET in Indonesia were established by the TVET Center of Excellence (COE). The following is a list of some of the larger programs. To revitalize the TVE Applied Approach Professional Teacher Education Program and the PEKERTI Program for Vocational Lecturers at Universities or Polytechnics, as well as provide various training and short workshops to existing VHS teachers [43].

#### 4. Conclusion

That teacher quality is a key element in determining the quality of the education system is the context in which this statement is made. Within the framework of the previous government's 20-year plan, there was significant political impetus for TVET reform. Increasing the number of school leavers interested in becoming teachers in vocational schools was a primary responsibility of the function including providing opportunities for career development and training. A secondary function was to supply the manufacturing and service industries with more skilled workers, which was a requirement for both sectors. Some of the most important programs included the following: revitalizing the Professional Teacher Education Program in TVET; organizing the Applied Approach (AA) and PEKERTI Programs for Vocational Lecturers in Universities or Polytechnics; and developing various training opportunities and short workshops for vocational high school teachers who had already entered the profession.

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