Implementation Development Teacher Certification Program in Universitas Negeri Makassar

Implementation Development Teacher Certification Program in Universitas Negeri Makassar

Khaeruddin[1*], **S Annas**[2], **and Awi**[3]

[1] Physics Education Department, Universitas Negeri Makassar, Indonesia
[2] Statistics Department, Universitas Negeri Makassar, Indonesia
[3] Mathematics Education Department, Universitas Negeri Makassar, Indonesia

*****Email: khaeruddin@unm.ac.id.

Abstract. The pedagogic competence being tested is the integration of pedagogical concepts into the learning process of the field of study in the classroom. Meanwhile, the professional aspect is the basic competence in the field of study tested in accordance with the academic qualifications of the teacher, namely the ability of the teacher to plan and implement the learning process. Related to that, the results of this TCT could be influenced by several factors, including the quality of the input for Teacher Certification Program (TCP) implementation in the Institute of Teachers' Education (ITE), the quality of the TCP implementation process in the ITE, the quality of the output of TCP implementation in the ITE, the internal quality assurance system for the Study Program organizing TCP in the ITE, and the TCP implementation model in the ITE. Therefore, it is necessary to study the input, output, process, Internal Quality Assurance Standards, and the implementation model of MIPA TCP in ITE.

1. Introduction

In the era of globalization, the teaching profession has a strategic meaning, because the person has a true task for the process of humanity, humanity, intelligence, civilization, and builder of the nation's character. The essence and existence of the strategic meaning of the teaching profession is recognized in the historical reality of education in Indonesia. Law (UU) No. 14 of 2005 concerning Teachers and Lecturers, as a legal basis for recognition of the teaching profession in all its dimensions. The awareness to present professional teachers and education personnel as the main resource for the nation's intellectual development is perhaps as old as the history of educational civilization. Until now, both in fact and in perception, there are still many people who doubt the competence of teachers both in the field of study being taught and in other supporting fields, especially the didactic and learning methodical fields. This doubt is reasonable because it is supported by the results of competency tests which show that there are still many teachers who have not reached the set competency standards. This is evidenced in 2012, the average TCT result for 460,000 teachers was 44.50 from the expected standard of 70. In 2013, the average result of the TCT throughout Indonesia was only 42.50. In 2015, the average result of the Teacher Competency Test (TCT) throughout Indonesia was only 53.02.

The TCT results also indicate that the pedagogical and professional competence of teachers in Indonesia is still far from expectations. Given that the material tested on TCT includes 30 percent pedagogical competence and 70 percent professional competence. The pedagogic competence being tested is the integration of pedagogical concepts into the learning process of the field of study in the classroom. Meanwhile, the professional aspect is the basic competence of the field of study tested

according to the academic qualifications of the teacher, namely the ability of the teacher to plan and implement the learning process. The TCT results are also in line with the results of the mapping of The Program for International Student Assessment (PISA) from 2000 to 2015 regarding student performance in mathematics, science and reading, the tendency does not show significant increase / decrease and tends to stagnate at low performance scores. Even in 2012, Indonesia's average score was only 382, ranking 64 of the 65 countries mapped.

2. Research methods

This research is a policy research by analyzing the TCP implementation documents. The method of analysis used in this research is existing statistics, in which the researcher reorganizes or combines information into new ways to answer research questions. Therefore, the research design is a policy research design that refers to the model developed by Stufflebeam, D. L. (1983), namely CIPP (Context, Input, Processes, Product).

a. Context, covering the needs and expectations of regions and stakeholders regarding the implementation of the TCP Study Program.
b. Input, including the availability and readiness of resources, facilities and infrastructure for implementing the TCP Study Program, such as human resources (participants, lecturers, tutors, etc.), learning facilities, curriculum, teaching materials, partner institutions, academic regulations, organizational structure of the organizers , and the quality assurance system.
c. The process includes the following activities: 1) Monitoring and evaluation of the TCP Study Program preparation 2) The TCP Study Program preparation includes: institutional management, registration, selection, announcement, distribution, self-report, and orientation. 3) Monitoring and evaluation of learning, the learning process of the TCP Study Program consists of: workshops and Practice Field Experience (PFE), 5) Monitoring of competency tests (performance tests and national written tests).
d. Products / Results include: 1) Output, including outputs achieved by the TCP Study Program manager, for example the quality and number of graduates. 2) Outcomes, including the long-term impact on the professional development of prospective teachers and improving the overall quality of education.

3. Research Results and Discussion

3.1. Policies and supporting tools related to the governance of TCP implementation

Policies and supporting tools related to the management of TCP Universitas Negeri Makassar (UNM) are as shown in Table 1 below.

Table 1. Supporting tools related to the governance of TCP implementation

Sub indicators	Description
The existence of statutory regulations	there are laws and regulations in implementing policies and supporting tools related to the governance of the implementation of TCP as follows: 1. Law Number 20 of 2003 concerning the National Education System. 2. Law Number 14 of 2005 on Teachers and Lecturers. 3. Government Regulation Number 19 Year 2005 regarding National Education Standards. 4. Government Regulation Number 74 Year 2008 regarding Teachers. 5. Government Regulation Number 32 of 2013 concerning Amendments to Government Regulation of the Republic of Indonesia Number 19 of 2005 concerning National Education Standards. 6. Government Regulation Number 74 at 2008 concerning teache

Sub indicators	Description
Ministerial Regulation Ministerial Decree *of TCP*	1. There is a Ministerial Regulation, Ministerial Decree, Director General Decree in implementing policies and supporting tools related to the governance of implementing TCP as follows: 2. Regulation of the Minister of National Education Number 16 of 2005 concerning Qualification and Competency Standards for Educators. 3. Regulation of the Minister of National Education of the Republic of Indonesia Number 27 of 2008 concerning Academic Qualification Standards and Counselor Competencies. 4. Regulation of the Minister of Education and Culture Number 5 of 2012 concerning in-service teacher certification. 5. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 20 of 2016 concerning Competency Standards for Primary and Secondary Education Graduates. 6. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 21 of 2016 concerning Content Standards for Primary and Secondary Education. 7. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 22 of 2016 concerning Process Standards for Primary and Secondary Education. 8. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 23 of 2016 concerning Assessment Standards for Primary and Secondary Education. 9. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 111 of 2014 concerning Guidance and counseling. 10. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 160 of 2014 concerning Enforcement of the 2006 Curriculum and 2013 Curriculum. 11. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 29 of 2016 concerning Certification for Teachers Appointed Before 2016. 12. Decree of the Minister of Education and Culture of the Republic of Indonesia Number 065 / P / 2016 of 2016 concerning the Consortium for Teacher Certification. 13. Decree of the Minister of Research, Technology and Higher Education of the Republic of Indonesia Number 192 / M / KPT / 2017 of 2017 concerning Higher Education Organizing Certifications for Teachers in Position through Teacher Professional Education and Training.

Sub indicators	Description
Guidelines for implementing TCP issued by Directorate of Learning and Student Affairs, Ministry of Research, Technology and Higher Education : looking for harmony between rules / regulations and operationalization	There are guidelines for implementing TCP issued by the Directorate of Learning and Student Affairs, Ministry of Research, Technology and Higher Education of the Republic of Indonesia

3.2. Quality of input for the implementation of TCP at UNM

The quality of input for the implementation of TCP at UNM includes Human Resources (HR) for lecturers, tutors, UNM staff and non-permanent staff at UNM. In addition, the availability of facilities and infrastructure, partner schools, completeness of curriculum elements, teaching materials, and regulations academic. The quality of input for the implementation of TCP at UNM is shown in Table 2 below.

.

Table 2. Quality of input for the implementation of TCP at UNM

Sub indicators	Description
Human Resources/HR (lecturers, tutors, staff, management personnel)	1. The human resources for lecturers in organizing TCP are obtained from the HR of UNM lecturers based on the TCP field of study who meet the criteria and requirements through selection according to the standard procedures of the Ministry of Education and Culture. 2. The human resources for civil service teachers in implementing TCP are obtained from the HR of teachers from UNM partner schools based on the TCP field of study who meet the criteria and requirements through selection according to the standard procedures of the Ministry of Education and Culture. 3. Human resources for education personnel in organizing TCP are obtained from UNM's technical personnel and UNM non-permanent employees who meet the criteria and requirements. 4. The management personnel are determined through the UNM Rector's Decree which consists of the human resources of UNM lecturers who have the skills to manage the implementation of TCP.
Facilities and Infrastructure (Class, laboratory)	Facilities and infrastructure such as classrooms and laboratories are also available. The facilities and infrastructure have met TCP implementation standards such as: complete classrooms, LCD, LCD screen, white board, lecturer tables and chairs, student desks and participants, adequate lighting, air conditioning, wifi internet connection network from UNM, and so on. . The facilities and infrastructure for the TCP UNM Study Program can be divided into two parts, namely: 1. The facilities and infrastructure that are centralized in the TCP Study Program, such as: 10 complete classrooms, 2 computer laboratory rooms, microteaching laboratory rooms, service office rooms, prayer rooms, and so on. 2. Facilities and infrastructure in each of the TCP fields of study such as: complete classrooms, computer laboratory rooms, microteaching laboratory rooms, libraries, prayer rooms, and so on.

Sub indicators	Description
Partner schools	TCP UNM implementation partner schools that have established an MoU between UNM and partner schools. The TCP implementation partner schools consist of the following levels: kindergarten, primary school, Junior high school, senior high school.
Completeness of curriculum elements, namely: vision, mission, graduate profile, learning outcomes of graduates in the field of study (containing 4 competencies), study materials and the formation of activities, determining the amount of credit, compiling curriculum structures (arranging subjects in semester, block or non block, preparation of Lesson Plan)	There is a TCP curriculum which consists of curriculum elements, namely: vision, mission, graduate profile, learning outcomes of graduates in the field of study (containing 4 competencies), study materials and the formation of activities, determining the amount of credit, compiling curriculum structures (arranging activities in the semester , block or non-block model, preparation of lesson plan)
Teaching materials	The teaching materials used are sourced from the Ministry of Education and Culture which is compiled by a national teaching material/module compilation team.
Academic regulations	The academic regulations used follow the UNM academic regulations.

3.3. The quality of the TCP implementation process at UNM

The quality of the TCP implementation process at UNM includes Monitoring and Evaluation of TCP Study Program Preparation, TCP Study Program Preparation including: institutional management, registration, selection, announcement, distribution, self-reporting, and orientation, Learning Monitoring and Evaluation, Assessment, and Competency Test Monitoring (performance test and national written test). The quality of the TCP implementation process at UNM is as in Table 3.

Table 3. The quality of the TCP implementation process at UNM

Sub indicators	Description
Monitoring and Evaluation of TCP Study Program Preparation	Monitoring and evaluation of the TCP study program preparation is carried out by monitoring the preparations for the implementation of TCP through the implementation team meeting.
TCP Study Program preparation includes: institutional management, registration, selection, announcement, distribution, self-report, and orientation	The study program prepares with a coordination meeting on institutional management, registration, selection, announcement, distribution, self-report, and academic orientation.

Sub indicators	Description
Learning Monitoring and Evaluation	Monitoring and evaluation of TCP learning is carried out by the quality assurance section of the TCP Study Program and collaborates with UNM quality assurance by using standards and quality criteria for the implementation of TCP learning.
Assessment: assessment forms and techniques	The form of the assessment rater is more related to the determination (justification) of the position and ability of the TCP Program students during and after participating in the learning program. Assessment is carried out to determine the competency attainment (learning outcomes) of TCP Program students during and after participating in a learning program / lecture. In the period of the Indonesian National Qualifications Framework/INQF-oriented curriculum and Learning Outcomes (LO), the assessment was more oriented to how far the competence / LO that had been proclaimed could be achieved by students, and was also accompanied by tracking the roles of various factors in the actualization of the learning activities held. As is well known, there are many determining factors for the actualization of learning activities. These factors include teacher / lecturer competence factors, characteristics of content / material or teaching materials, approaches and methodologies developed by teachers / lecturers, guidance / mentoring obtained, available learning facilities and infrastructure, and physical / psychological conditions of program students.
The learning process for the TCP Study Program consists of: Workshop and development of learning tools	The learning process of the TCP study program consists of workshops in deepening materials and the preparation of learning tools. The material deepening consists of a pedagogic module and a field expertise module. The preparation of learning tools consists of lesson plan documents, teaching materials, worksheet, learning media, and evaluation tools. Furthermore, the implementation of peerteaching. In 2020 TCP implementation of all stages will be carried out online.
Competency Test Monitoring (performance test and national written test)	Competency test monitoring (performance test and knowledge test) is conducted nationally.

3.4. The Quality of output of TCP implementation at UNM

The output quality of the TCP implementation at UNM includes the quality and number of graduates, the absorption of graduates, outcomes which include long-term impacts on the professional development of prospective teachers and improving the overall quality of education. The output quality of the TCP implementation at UNM is as in Table 4.

Table 4. The Quality of output of TCP implementation at UNM

Sub indicators	Description
Output, including the output achieved by the TCP Study Program	The output includes the outputs achieved by the manager of the TCP study program in terms of quality including having very good quality with the quality of TCP graduates used by

Sub indicators	Description
manager, for example the quality and number of graduates	stakeholders to meet the needs of education implementation. The number of TCP graduates is also classified as very good with a very high pass rate from TCP participants.
Competitiveness of graduates	The Competitiveness of graduates of TCP graduates is very high, for those who are already civil servants the teachers have immediately served, for non civil servants the teachers take part in the national candidate SS selection and are almost entirely accepted.
Outcomes, including the long-term impact on the professional development of prospective teachers and improving the overall quality of education	Long-term impact outcomes are very supportive, where the quality of output of TCP graduates has teacher professional competence and is able to apply and implement well so that it has a good impact and supports the long-term impact on the professional development of prospective teachers and improves the quality of education as a whole.

3.5. Internal quality assurance system for the Study Program organizers of TCP at UNM

The internal quality assurance system for the Study Program that organizes TCP at UNM is carried out by periodically reviewing the program, continuous quality assurance of teachers, the availability of adequate educational facilities, carrying out participant evaluations objectively and transparently, and an information system that is easy, correct, and open to all. stakeholders. The internal quality assurance system for the Study Program organizing TCP at UNM is shown in Table 5.

Table 5. Internal quality assurance system for the Study Program organizers of TCP at UNM

Sub indicators	Description
Quality Documents	The steps for quality assurance of the TCP Study Program are described below. a. Policies and manuals for quality assurance Policies and manuals must meet the following requirements: 1. The ITE have a quality assurance policy and manual for the TCP Study Program. 2. Responsible to the institution itself for the development of a culture that respects the importance of quality and quality assurance. 3. Develop and implement strategies for continuous quality improvement. In order to achieve the above policies and procedures, a guide that describes the implementation of Teacher Education Standards is needed. b. Establishing Standards and Quality Forms Besides the minimum standard of teacher education standards, it is necessary to set other standards which include: 1. Workshop process and product quality standard. 2. Peer / microteaching quality standards. 3. Process and product quality standards of PFE. 4. Implementation quality standards, reporting, and presentation of Class Action Research (CAR) results. 5. Competition test quality standards.

Sub indicators	Description
	All defined standards are followed by a minimum of one quality form. c. Implementation of Internal Monitoring and Review. The quality assurance unit at the ITE that organizes the TCP Study Program has a formal mechanism for periodic review and internal monitoring of the program. Periodic monitoring and review of the program is carried out with the following guidelines: 1. Formulation and publication of the desired explicit outcomes. 2. Careful attention to curriculum and program design and content. 3. The need for various types of delivery models that are unique / specific. 4. Availability of appropriate learning resources. 5. Monitoring progress and learning outcomes of participants. 6. Periodic and regular program reviews (including external reviews). 7. Regular feedback from lecturers, graduate user representatives, and other relevant organizations. 8. Participation in quality assurance activities

Referring to Tables 1, 2, 3, 4, and 5 show that the TCP MIPA Study Program at the State University of Makassar has systematically designed and applied quality principles starting from selection, learning and assessment processes, to competency tests. This is shown by the very high absorption capacity of TCP graduates, for those who are already Civil Servants (SS) teachers who have served directly, for non-SS teachers following the Candidate SS selection nationally and almost all of them are accepted. This means that the TCP MIPA Study Program at the Universitas Negeri Makassar has produced teachers who are able to develop and present actual subject matter using various approaches, methods, and the latest learning technologies. Teachers who are able to organize successful learning lead students to enter the world of life according to the needs and challenges of their time. In other words, the Universitas Negeri Makassar of TCP MIPA Study Program has produced: (i) future professional teachers who can produce graduates who are superior, competitive, and have character, and love the country, (ii) professional teachers who have pedagogical competence personal, social, and professional in accordance with the provisions of laws and regulations.

References

[1] Anderson, J. (2000). *Public Policy Making*. Boston: Houghton Mifflin.
[2] Nurwardani, P., dkk. (2018). Pedoman Penyelenggaraan Program Pendidikan Profesi Guru. Jakarta: Direktorat Jenderal Pembelajaran dan Kemahasiswaan Kementerian Riset, Teknologi, dan Pendidikan Tinggi.
[3] Hattie, John A. (2011). *Visible Learning for Teachers*: Maximizing Impact on Learning.
[4] Mahsunah, D., dkk. (2012). Kebijakan Pengembangan Profesi Guru. Jakarta: Badan Pengembangan Sumber Daya Manusia Pendidikan dan Kebudayaan dan Penjaminan Mutu Pendidikan Kementerian Pendidikan dan Kebudayaan.
[5] Mazzeo, J & Davier, M. (…..).*Review of the Programme for International Student Assessment (PISA) Test Design:Recommendations for Fostering Stability in Assessment Results*.
[6] Pannen, P., dkk. (2017). Pedoman Penyelenggaraan Pendidikan Profesi Guru. Jakarta: Direktorat Jenderal Pembelajaran dan Kemahasiswaan Kementerian Riset, Teknologi, dan Pendidikan Tinggi.
[7] Peraturan Menteri Riset Teknologi, dan Pendidikan Tinggi Nomor 55 Tahun 2017 tentang Standar Pendidikan Guru.
[8] Peraturan Pemerintah Nomor 74 Tahun 2008 tentang Guru.

[9] Sardjoko, S. (2016). Peningkatan Kualitas Pendidikan Profesi Guru Melalui Revitalisasi LPTK. Jakarta: Bappenas.
[10] Stufflebeam, D. L. (1983). *The CIPP model for program evaluation.* In *Evaluation models* (pp. 117-141). Springer, Dordrecht.
[11] Undang-undang Nomor 14 Tahun 2005 tentang Guru dan Dosen.
[12] Undang-undang Nomor 12 Tahun 2012 tentang Pendidikan Tinggi.