

Jurnal Penelitian dan Evaluasi Pendidikan Volume 26, No 2, December 2022 (116-125)

Online: http://journal.uny.ac.id/index.php/jpep



Evaluation of Teacher Professional Training (TPT) program in the position of full online learning

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ARTICLE INFO

ABSTRACT

Article History Submitted:

22 September 2021

Revised: 25 March 2022

Accepted: 5 September 2022

Keywords

program evaluation; CIPP: teacher professional training (TPT) in position

The context aspect shows that the TPT program helps develop teacher professionalism (2) The input aspect shows that the Educational Personnel Education Institute organizers have good quality in implementing the TPT program (3) The process aspect shows that there is a relevance between the knowledge test material and the performance test on the educational competence and professionalism of teachers. (4) The product aspect shows that the TPT program affects changes in teacher teaching

The purpose of this study is to evaluate the Teacher Professional Training program

(TPT) in first force Makassar State University (UNM) in a science study program in

fully online learning. This research is an evaluation research with the CIPP model

from Stufflebeam. The data were collected using a questionnaire-based survey method

with descriptive statistical analysis. The instrument was distributed via google form to

TPT students in positions. The conclusions of the research results are as follows: (1)

methods even though it is carried out entirely online. This is an open access article under the **CC-BY-SA** license.







How to cite:

Salamah, U., & Istiyono, E. (2022). Evaluation of Teacher Professional Training (TPT) program in the position of full online learning. Jurnal Penelitian dan Evaluasi Pendidikan, 26(2), 116-125. doi:https://doi.org/10.21831/pep.v26i2.43978

INTRODUCTION

Education has a massive role in the nation's progress as the president of the most advanced country in the world, still recognizing that investment in education is essential in the nation's progress. "As a nation, we now invest more in education than in defense" (Suyanto, 2003). Educators or teachers are one of the six elements determining the quality of education: teachers or educators, learners, teaching materials, methods, educational goals, and educational environments. Even some people believe that the success of education depends on the mastery of teachers (Arifa & Prayitno, 2019). Therefore, based on the needs of the 21st century, changes in teaching and learning must begin with the improvement of teachers' abilities as the vanguard of education (Wahyuni, 2018). Professional teachers are teachers who have expertise both in terms of scientific material mastered and methodological skills. The expertise of a professional teacher can be obtained through a process of capacity building that is programmed and specifically structured (Firmasnyah et al., 2017).

According to the Government Regulation No. 19 of 2005 article 28 paragraph 3, facing an ever-changing era, teachers at the era of Education 4.0 must have at least four abilities: teaching knowledge, personality ability, professional ability, and social ability. In addition, to achieve quality education, teachers must have the ability to read and write in the form of language, mathematics, and science literacy (Kharzimi, 2015). To meet this, the government seeks to increase the competence that teachers must have, one of which is professional competence. Collins and O'Brien in Zulfitri et al. (2019) state that the term professional can be defined as the behavior or characteristics, goals, or qualities that characterize a job or someone an expert in a particular field.

The government passed the National Education System Law (Law No. 20 of 2003), the Teacher and Lecturer Law (Law No. 14 of 2005), and various other laws and regulations that look at teachers and lecturers' strategic roles in improving the quality of education. The profession of a teacher in a particular field of work. Of course, it cannot be completed by careless people, but only by educated people who are ready to plunge into the field of education by the principles of Law No. 14 of 2005 article 7 concerning Teachers and Lecturers that every teacher should prepare to become a professional teacher through professional teacher education. According to Law No. 20 of 2003 on the National Education System, vocational education is higher after an undergraduate program that provides employees with special skills requirements.

The Teacher Professional Education Program (TPT) is an educational program organized for graduates of bachelor of education and bachelor or diploma of Non-Education who have the talent and interest of becoming teachers so that they can become professional teachers by the national standards of education and obtain an educator certificate (Ministry of Research, Technology, and Higher Education, 2018).

The Teacher Professional Education Program for teachers in the Department which is from now on referred to as the TPT Program in the Department is an educational program organized after an undergraduate or applied undergraduate program for Teachers in the Department to obtain a Certificate of Educators in early childhood education of formal education, elementary education, and secondary education (Ministry of Education and Culture, 2020).

Related to this is an effort to improve the quality of teachers by the provisions of Presidential Regulation No. 16. The Government Regulation No. 14 of 2005 and PP 74 of 2008 stipulate that "teachers must have a minimum academic qualification of S1/D-IV and have an educator certificate".

The Regulation of the Minister of National Education No. 16 of 2007 states that "every teacher must meet nationally applicable academic and competency qualification standards. The teacher qualification standards are in the form of educational competency standards, social competency standards, and professional competency standards". Substantively, pedagogic competence includes the ability to understand students, design and implement learning, evaluate learning outcomes, and develop students to actualize their various potentials. Professional competence is an ability related to the mastery of learning material in the field of study broadly and deeply which includes mastery of the substance of the content of the curriculum material in school subjects and the scientific substance that overshadows the curriculum material, as well as increasing scientific insight as a teacher. Social competence relates to the ability of educators as part of the community to communicate and interact effectively with students, fellow educators, education staff, parents/guardians of students, and the surrounding community (Kartowagiran, 2011). Teacher Professional Education (TPT) is one of the efforts in producing professional teachers (Arifa & Prayitno, 2019). Teacher Professional Education both in the pre-employment track and in the position is carried out using pedagogical curriculum including peer-teaching, workshops, material deepening, and competency tests based on the utilization of information technology (Regulation of the Minister of Education and Culture No. 87 of 2013).

Implementing a teacher professional education program in the Department in 2020 is carried out in full online. In the event of the Covid-19 pandemic, the implementation of TPT in the Department in 2020 will be held full online (Kemendikbud.go.id). TPT Learning in the Department will use online patterns through learning media Learning Management System

(LMS). Through LMS media, the material is presented in soft files and supported by several teaching videos related to the formative tests of each sub-chapter of learning achievement. Integrated Indonesia Open Online Lecture Program, according to the Ministry of Education and Culture of the Republic of Indonesia, aims to increase the availability of educational services, improve the affordability of encoding services, improve the quality or quality and relevance of educational services, improve equality in getting the quality of educational services, and increase the certainty of getting quality of service as well as good education (Mustofa et al., 2019). The implementation of this online learning model has been carried out by all participants of teacher profession programs in Indonesia.

The implementation of TPT in the 2020 Department begins in August 2020 which is divided into three forces. First, the curriculum structure of TPT in the Department consists of three subject topics, namely deepening pedagogical materials and fields of study, development of learning devices and new peer-teaching models, and field experience practices or abbreviated as PPL. Second, for TPT, the Department of learning burden that must be taken in as many as 12 credits in its implementation is done in full online (PPG.kemendikbud.go.id). Currently, the Educational Institution of Education Personnel in Indonesia has been carrying out online learning since Law No. 12 of 2012 on Higher Education and Regulation of the Minister of Education and Culture No. 109 of 2013.

Makassar State University is one of the Educational Institutions of Education that holds a TPT program in the position followed by Teachers in the Department. Class teachers are civil servants or non-civil servants who teach in the education unit, regardless of whether the education unit is organized by the central government, local government, or education organizers who have a work agreement or collective labor agreement. Students are teachers in the position of participants of the TPT program (Ministry of Education and Culture, 2020). The TPT program in the Department of 2020 was implemented for 86 effective days, which included five stages of activities, namely (1) deepening of the material, (2) the development of learning devices, (3) review learning and reflection devices, (4) PPL and review PPL, and (5) competency tests of TPT (UKMTPT) students (Ministry of Education and Culture, 2020).

Teacher Professional Education program implemented responsibly and did not deviate from what has been determined will undoubtedly have a tangible impact on society. However, if its implementation is less than the maximum, then the goals and expectations will not be achieved to the maximum as well. Thus, a program is undoubtedly expected to run well to accomplish the needs of participants. However, it cannot be denied if, in its implementation, there are still various obstacles, so an evaluation of the program is needed to find out the level of achievement or obstacles faced. After finding the problem the program can run or not, it will be given recommendations to the parties concerned, in this case, Makassar State University, for improvement. TPT program in the Department of Makassar State University First force in 2020 based on self-report results was followed by 407 participants divided into six study programs, namely PAUD (152 people), PTIK (53 people), PGSD (64 people), IPA (60 people), PJOK (19 people), IPS (59 people). Because the implementation of the TPT program is carried out online, participants follow the activities in their respective areas. The origin area of a TPT class 1 participant is spread throughout Indonesia. All participants will take TPT for 86 effective days. The implementation of TPT in 2020 is the benchmark for the following forces in implementing the TPT program. If the TPT program organized by Educational Personnel Education Institute of Makassar State University is fully online in its performance is done effectively, and by the program's purpose and by the needs of TPT participants, then the program can be said to be successful. When associated with program evaluation, the program is defined as a unit or unity of activities that is the realization or implementation of a policy in a continuous process and occurs in an organization involving a group of people (Arikunto & Jabar, 2009). Program evaluation is developed from general evaluation, which collects data, analyzes it, and uses it to make decisions about the subject or topic being evaluated.

This study aimed to evaluate the TPT In-Office program conducted in full online using the CIPP model. The CIPP model concluded more to lead to the formative role of this model is the definition of evaluation given by Stufflebeam (1985), that: "evaluation is the process of describing, producing, and providing useful information for the determination of alternative decisions." The purpose of the program evaluation is to determine the achievement of program goals by taking steps to assess the implementation of program activities (Arikunto & Jabar, 2009). Mizikaci (2006) said that program evaluation could be defined as a systematic operation of varying complexity involving data collection, observation, and analysis, and culminating in an assessed value of the quality of the program evaluated, considered in whole or through one or more of its components. Program evaluation is essential to determine how and to what extent the system's quality effectively improves educational practices and outcomes.

Furthermore, evaluation is done to know the achievement of program goals that change from the previous year in the process. For example, the TPT program in the office in 2019 is not fully online. However, because of the pandemic situation, 2020 is implemented in full online. In addition to having benefits such as teachers, online learning can innovate technology-based learning and has some obstacles; for example, some participants are not yet technologically literate (Kurniawan & Zarnita, 2020). Therefore, research on the evaluation of TPT programs in the Department on complete online learning is essential to be studied. PPG is a program of government policy to strengthen the basic competencies that participants must have as professional teachers so that their success needs to be assessed and evaluated. The program needs to be evaluated, if you want to improve the design, implementation, and also the results of the implementation of a program for the better, then an assessment must be carried out (American Psychological Association, 2014).

RESEARCH METHOD

This research is survey research to reveal respondents about the evaluation of the implementation of the TPT program in the Science Study Program first force, Makassar State University in full online learning with CIPP evaluation model (context, input, process, and product) by Stufflebeam (1985). The development of the instrument is a modification of Dalimunthe, et al. (2019) about "Evaluation of Teacher Professional Training program with Contextual, Input, Process, and Product (CIPP) models" refers to the indicators contained in the TPT Guidelines issued by the Directorate General of Learning and Student Affairs. Before being used to collect questionnaire data, the V-Aiken validity test was carried out with expert judgment than do the reliability test alpha Cronbach and obtained a reliability coefficient of 0.935 with very high criteria so a valid and reliable questionnaire is obtained in explaining phenomena in the field. The instrument is then designed into Google Forms so it can be easily accessed by the TPT program participants in the Science Study Program first force, Makassar State University (UNM).

The research sample is the TPT program participants in the science study program class 1 who have completed program implementation at the Makassar State University (UNM) in 2020. The data analysis technique used descriptive statistics. This technique was used to obtain data from the questionnaire and then analyzed it quantitatively descriptively with assessment criteria by Riduwan (2009) (Table 1) and get results and conclusions from the analyzed data.

Table 1. Assessment Criteria

% Score	Rating Criteria
0 – 20	Not good
21 - 40	Not good
41 - 60	Enough
61 - 80	Well
81 – 100	Very good

FINDINGS AND DISCUSSION

Findings

The Professional Teacher Education program for teachers in position, which is herein-after referred to as TPT in Position Program, is an educational program that is held after an applied undergraduate or graduate program for teachers in position to obtain an Educator Certificate in early childhood education through formal education, basic education, and secondary education (Ministry of Education and Culture, 2020). Based on the results of research on the implementation of the Teacher Professional Training program in the position of science study program class 1, Makassar State University in fully online learning, in general, it can be distributed as in Table 1.

Based on the results of the study as presented in Table 2, Table 3, Table 4, and Table 5, in the context of the evaluation component, in general, the implementation of Teacher Professional Training programs in the science study program position batch one which is carried out fully online is relatively high. Based on research conducted by Murdiyanto (2020) regarding the Perceptions of TPT participants in positions on the implementation of the TPT with Hybrid Learning program in the field of Mathematics studies, State University of Jakarta in 2019, above 80% of participants have understood the TPT learning achievements, the availability of the learning resources, and also the ability to complete assignments as well as the evaluations (Murdiyanto, 2020).

Table 2. *Context* Aspect

No.	Items	Score (%)
1.	TPT program is needed for teacher professional development	93.33
2.	The TPT program is effective and efficient in the professional development of educators	90.83
3.	The TPT program is effective and efficient in overcoming the problems of teacher learning practices during the pandemic	87.92
	Average Criteria	

Table 3. *Input* Aspect

No.	Items	Score (%)
1.	Competence of TPT program participants in participating in TPT programs in learning full online	84.58
2.	Lecturer's competence in delivering TPT program material in learning full online	87.92
3.	The competence of civil servant teachers in assisting TPT participants in implementing PPL in learning <i>full</i> online	85
4.	The facilities prepared by the TPT committee are available to support the implementation of the TPT program in learning <i>full</i> online	84.58
5.	The topics in the TPT curriculum are following the teacher's needs	94.17
6.	The topics available in the TPT curriculum help in solving teaching problems	92.92
7.	Available modules help in achieving learning objectives in each topic	87.5
8.	Competence gained in deepening material accessed online <i>full</i> online can be applied to partner institutions (schools)	86.25
9.	Academic regulations in the implementation of TPT assist the implementation of the Field Experience Practice (PPL) program	89.17
10.	The organizational structure of TPT organizers is good	87.92
11.	Instructor evaluation by TPT participants needs to be done at the end of each workshop	83.75
12.	Module evaluation needs to be done by TPT participants	83.33
13.	Monitor and evaluate the preparation of the TPT organizer study program	83.75
Average Criteria		86.98 Very good

Table 4. Process Aspect

No.	Items	Score (%)
1.	The institutional management of the TPT study program has been carried out well	88.33
2.	Monitoring and evaluation of learning in the TPT program carried out by <i>full</i> online has been well done	88.75
3.	The learning process in the TPT program is carried out in a <i>full</i> online helps participants in knowledge test and performance test	85.42
4.	The learning process Practice Field Experience (PPL) in the program TPT has done well even in the process is done <i>fully</i> online	86.67
5.	The learning material in the TPT program is relevant to the material tested on the UP test and performance test	86.67
6.	The aspects assessed in the performance test are under the criteria for the competence of pedagogical and professional teachers	90.83
7.	The material tested in the Knowledge Test (UP) in the TPT program is following the pedagogic and professional competence criteria obtained in the module.	86.67
Average Criteria		87.62 Very good

Table 5. Product Aspect

No.	Items	Score (%)
1.	How has the TPT program changed the way you teach at school?	92.5
2.	How are the competencies obtained from the TPT program in implementing learning in your school?	91.25
	Average Criteria	91.87 Very good

The results of the input, process, and product evaluation components show that the implementation of the program is also classified as very good. The results of this study can be further explained in the following subject matter.

Participant Response Regarding the Context Aspect

Aspects of context illustrate the urgency and relevance of TPT programs in developing teacher professionalism. From the survey results, respondents scores showed that the TPT program was effective and efficient in developing teacher professionalism. Besides, the TPT program was effective and efficient in addressing the problem of teacher learning practices in the pandemic period. The TPT program is aimed at improving the quality of teachers and improving their performance capacity. Based on Suyanto and Djihad (2012) that as professionals, teachers are obliged to improve and develop academic qualifications through good and sustainable competencies in line with the development of science.

The study results showed that teachers and policymakers, in this case, the government, have had conformity of goals regarding teacher professional development programs framed in the Teacher Professional Education program, especially teachers in positions. Interestingly, from these results, 16.7% of the response scores of TPT participants rated TPT programs in the category sufficient in overcoming the problem of teacher learning practices in the pandemic. These values indicate no significant change in addressing the issue of teacher learning practices in pandemic times. This shows that the implementation of professional teacher programs that, although in the process are implemented in full online, does not reduce the effectiveness of their performance.

Participant Response Regarding the Input Aspect

The *input* aspect describes the readiness of all aspects that intersect with the implementation of the TPT program. These aspects include (1) Participants; (2) Lecturers; (3) Teacher; (4) Educational Personnel Education Institute Organizer; (5) Curriculum; (6) Modules; (7)

Partner Institutions; (8) Evaluation Tool. From the aspect of participants' competence, the score shows that participants assess the criteria set by prospective TPT participants by the qualifications of prospective professional teachers. For this aspect, the criteria for prospective participants are determined by the Ministry of Education, which is standardized in the Minister of Education Regulation No. 37 of 2017. The qualifications of prospective participants will also have a linear impact on the results of the learning process, according to Usman (2006), teacher professionalism can be seen from the mastery of the educational foundation, mastery of teaching materials, can arrange teaching programs well and can assess the results and learning processes that have been implemented. Therefore, it is important in terms of determining the qualifications of prospective participants (Usman, 2006).

The response of TPT program participants is of the view that lecturers, facilitators, and teachers have adequate qualifications in the assistance and delivery of materials on the implementation of TPT programs to develop professional and pedagogical competencies even though in the process it is carried out in full online. This shows that lecturers and teachers are appointed by the requirements of competence and expectations of TPT program participants. However, there are still 14.34% of responses that need attention because they significantly influence the competence of lecturers and teachers in the assistance and delivery of materials. Therefore, unique identification related to these aspects can be a policy recommendation in selecting lecturers and teachers. Then, for the relevance of the curriculum to educational problems in each school of origin of participants, the response score is also classified as very good. Thus, the Response shows that the curriculum and materials discussed in the TPT program have functional relevance to the problems in the participants' home schools.

Furthermore, the response related to partner school cooperation in the implementation of the PPL program shows that cooperation and collaboration between educational institutions are essential because improving the quality of education must be carried out systemically. In terms of monitoring and evaluating participants' views, this is very necessary, especially for assessing lecturer facilitators, teachers, and teaching modules. This related response shows a perception score above 80% for facilitators, modules, and organizers. This score is already perfect. About 83% of participants agreed to the evaluation of lecturer facilitators and teachers, but there were about 4% stated that it was not necessary to do so. This can be an input for university organizers in conducting evaluations by participants on lecturer facilitators and teachers and the organizers themselves to increase program implementation.

Participant Response Regarding the Process Aspect

Aspects of the process refer to Educational Personnel Education Institute TPT managers, learning processes, learning materials, student PPL and the performance, and the UKMTPT, which is all done in full online. In general, the Response from TPT participants resulted in a score above 80%, but there were still about 6-12% who agreed enough even though one respondent expressed disapproval. This shows that the management of the TPT program of Makassar State University on the implementation of a learning model learning management system by lecturers and mentoring by teachers has been going very well. However, the gap between module material and the implementation of competencies obtained from TPT programs, even though implemented in full online, brings changes to teaching and overall improves learning competencies.

This situation means that the competencies obtained are relevant to the school's needs so that they can be applied practically in the learning activities of teachers in their home schools. Learning is done entirely online, with the questions tested in the knowledge test percentage being reasonably small. However, Makassar State University (UNM) as an organizer deserves attention. Further, it evaluates the gap between questions and teaching materials by relying on the learning goals and achievements of TPT programs. This needs to be done to

control all learning activities of TPT programs to be maintained within the corridors of goals and learning outcomes set, teaching materials, practice materials, knowledge test materials, and performance tests even though they are done in full online.

Participant Response Regarding the Product Aspect

The product aspect wants to ensure that this TPT program answers the issue of education for teachers and schools in Indonesia to support national education goals. The critical problem in school-related to teacher professional development training is the relationship of training materials to issues teachers face in the field. The response score was more than 90%. In general, the participants felt that this state of competence obtained was relevant to the school's needs so that it could be applied practically in teacher learning activities in their home school. This shows that the teacher's professional education program, even though it is implemented in full online, still has a good level of effectiveness, and achievement indicators are achieved. This is in line with the objectives of the TPT program, namely, to produce prospective teachers who have the ability to develop the potential of students and produce prospective teachers who have competence in developing professionalism in a sustainable manner (Zulfitri et al., 2019).

CONCLUSION

Implementation of the TPT in the context aspect is in line with the problems teachers face in schools, so that with this program, teachers can develop competencies that can improve the quality of learning, both face-to-face learning in class and virtual. The implementation of TPT program in the input aspect, Makassar state university as Educational Personnel Education Institute organizers have standardized qualifications, both participants, lecturer facilitators, and teachers, organizers, curriculum and teaching materials by the rules issued by the Minister of National Education Number 37 of 2017.

Then, for the aspects of the process of implementing the TPT program in the position, the implementation has been running very well, ranging from learning media used such as modules and exercises about it, lecturer facilitators who have excellent competence and mastery of materials in their fields, experienced teachers and relevance of materials taught with the Knowledge Test carried out. The product aspects of the implementation of the TPT program have met the expectations of participants with competencies obtained during the learning process, which is then applied in the original school to help participants make even better learning changes.

REFERENCES

American Psychological Association. (2014). Standards for educational and psychological testing. American Educational Research Association, American Psychological Association, and National Council on Measurement in Education.

Arifa, F. N., & Prayitno, U. S. (2019). Peningkatan kualitas pendidikan: Program Pendidikan Profesi Guru Prajabatan dalam pemenuhan kebutuhan guru profesional di Indonesia. *Aspirasi: Jurnal Masalah-Masalah Sosial,* 10(1), 1-17. https://doi.org/10.46807/aspirasi.v10i1.1229.

Arikunto, S., & Jabar, C. S. (2009). Evaluasi program pendidikan. Bumi Aksara.

Dalimunthe, M. B., Nugrahadi, E. W., Fitrawaty, & Dalimunthe, R. Z. (2019). Evaluation of Teacher Professional Training program with Contextual, Input, Process, and Product (CIPP) models. *Global Conferences Series: Social Sciences, Education and Humanities (GCSSSEH)*, 3, 168-174. https://series.gci.or.id/article/213/13/icesshum-2019.

- Firmansyah, J., Aswita, D., & Rizal, S. (2017). Analisis kompetensi mengajar guru sertifikat (profesional) sebagai dasar peningkatan kompetensi mengajar guru IPA pada SMP negeri di Kabupaten Aceh Besar. *Jurnal Ilmiah DIDAKTIKA*, 18(1), 32-46. http://dx.doi.org/10.22373/jid.v18i1.3083.
- Government Regulation No. 19 of 2005 concerning National Education Standards. (2005).
- Kartowagiran, B. (2011). Kinerja guru profesional (guru pasca sertifikasi). *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan, 3,* 463-473. https://doi.org/10.21831/cp.v3i3.4208.
- Kharzimi, M. (2015). Kesulitas siswa sekolah dasar dalam meningkatkan kemampuan literasi. *Jurnal Pendidikan Dasar*, 2(2), 11-21. http://jfkip.umuslim.ac.id/index.php/jupendas/article/view/233.
- Kurniawan, M. W., & Zarnita, Y. (2020). Pembelajaran daring dalam pendidikan profesi guru: Dampak dan kendala yang dihadapi. *Jurnal Pendidikan Profesi*, 1(2), 83-90. https://doi.org/10.22219/jppg.v1i2.12440.
- Law No. 20 of 2003 concerning the National Education System. (2003).
- Law No. 14 of 2005 concerning Teachers and Lecturers. (2005).
- Ministry of Education and Culture. (2020). Program Profesi Guru. In *PPG Kemdikbud*. Retrieved on November 3, 2020, from https://ppg.kemdikbud.go.id/.
- Ministry of Research, Technology, and Higher Education. (2018). *Pedoman penyelenggaraan program PPG tahun 2018*. Direktorat Jenderal Pembelajaran dan Kemahasiswaan, Kementerian Riset, Teknologi, dan Pendidikan Tinggi.
- Mizikaci, F. (2006). A systems approach to program evaluation model for quality in higher education. *Assurance in Education*, 14(1), 37-53. https://doi.org/10.1108/09684880610643601.
- Murdiyanto, T. (2020). Persepsi peserta PPG dalam jabatan terhadap pelaksanaan program PPG hybrid learning bidang studi Matematika Universitas Negeri Jakarta tahun 2019. Jurnal Riset Pembelajaran Matematika Sekolah, 4(1), 76-84. https://doi.org/10.21009/jrpms.041.11.
- Mustofa, M., Chodzirin, M., Sayekti, L., & Fauzan, R. (2019). Formulasi model perkuliahan daring sebagai upaya menekan disparitas kualitas perguruan tinggi. *Walisongo Journal of Information Technology*, 1(2), 151-160. https://doi.org/10.21580/wjit.2019.1.2.4067.
- Raharjo, S. B. (2012). Evaluasi trend kualitas pendidikan di Indoneisa. *Jurnal Penelitian dan Evaluasi Pendidikan*, 16(2), 511-532. https://doi.org/10.21831/pep.v16i2.1129.
- Regulation of the Minister of Education and Culture No. 87 of 2013 concerning the Professional Education Program for Preservice Teachers. (2013).
- Regulation of the Minister of National Education No. 16 of 2007 concerning the Academic and Competence Qualification Standard of Teachers. (2007).
- Riduwan, R. (2009). Skala pengukuran variabel-variabel penelitian. Alfabeta.
- Stufflebeam, D., & Shinkfield, A. (1985). Systematic evaluation: A self-instructional guide to theory and practice. Nijhoff.
- Suryanto, S., & Djihad, D. (2012). Calon guru dan guru profesional. Multi Pressindo.
- Suyanto, S. (2003). Reformasi kebijakan pendidikan. Universitas Negeri Yogyakarta.
- Usman, M. (2006). Menjadi guru profesional. Remaja Rosdakarya.

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- Wahyuni, W. (2018). Peningkatan kompetensi guru menuju era revolusi industri 4.0. *Berkas DPR*, 218.
- Zulfitri, H., Setiawan, N. P., & Ismaini. (2019). Pendidikan Profesi Guru (PPG) sebagai upaya meningkatkan profesionalisme guru. *Lingua, Jurnal Bahasa & Sastra, 19*(2), 130-136. https://ejournal.unsri.ac.id/index.php/lingua/article/view/11095.