

Comparison of Pedagogical and Professional Competencies of Certified and Uncertified Teachers in State Elementary Schools

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Abstract: This study's purpose is to know the pedagogical and professional competence of teachers who have education certificates and those who do not yet have education certificates, and to understand that the pedagogical and professional competence of certified teachers is higher than uncertified teachers at the public elementary school in Ajibarang District, Banyumas. This quantitative research was done at a state elementary school in Ajibarang District, Banyumas. The research sample was 92 teachers, divided by 46 who have certificates and 46 who have not had certificates. Data used were primary data which collecting by questionnaire distribution. Data analyzed by t-test independent sample. This research concludes that certified teachers have a high pedagogical competence, and the pedagogical competence of uncertified teachers is lower. The professional competence of certified teachers is high, and the professional competence of uncertified teachers is lower. Paedagogic and professional competence of certified teachers are better than uncertified ones at the public elementary school in Ajibarang District Banyumas.

Keywords: pedagogical competencies; professional competencies; certified teachers; uncertified teachers.

A. Introduction

The quality of teachers will significantly influence the success of providing educational services. The teacher is the most critical actor in delivering educational services (Prihartini et al., 2019). In education, teachers have duties as educators, mentors, trainers, and leaders who manage to learn. In addition, teachers must be present as exemplary figures, build willingness, and develop their students' potential and creativity (Napratilora et al., 2021). Therefore, a teacher is required to be the party that facilitates students' learning so that their future will be promising. It needs

teachers to be able to become motivators and inspirations for their students (Khalkhali & Golestaneh, 2011).

According to Law Number 14 of 2005 concerning Teachers and Lecturers. Teachers are professional educators with the main task of educating, teaching, guiding, directing, assessing, and evaluating students at the level and type of formal education. These tasks are not easy to do. Teachers need a set of competencies to carry out these tasks. These competencies are obtained from formal and informal self-development processes. The competencies that exist in the teacher are a combination of their intellectual abilities, attitudes, and work motivation (Kim et al., 2017).

Intellectual abilities will enable teachers to direct themselves to have pedagogical and professional competence. Teachers' pedagogical competence is related to their ability to carry out learning activities using varied learning methods, strategies, and media with the help of ICT equipment (Murkatik et al., 2020). Professional competence is the ability to compose, package, and present material. The teacher can do these three things well when mastering the subject matter he is teaching. Teachers with solid professional competence will be able to understand the concepts in the subject matter they teach (Yu et al., 2012).

Meanwhile, the ability of teachers to behave and work motivation has a relationship with personality and social competencies. Both competencies are included in the teacher's social, emotional, and spiritual spheres. Teachers cannot ignore these three aspects when they become facilitators of learning (Muztaba et al., 2020).

The study results have shown that teachers' pedagogical and professional competence have a dominant and measurable role in determining the quality of learning compared to personality and social competencies (Murkatik et al., 2020). How vital is teacher competence, including pedagogical and professional competence, so that since 2007 the government (Depdiknas) has held competency tests for teachers. Teachers who have met the certification criteria can participate in a series of competency exam processes to obtain a teaching certificate. The teacher certification program is a government effort so that educators have academic qualifications and competencies as learning agents and can realize national education goals, so certified teachers are expected to carry out quality learning (Abubakar, 2016). When knowledge is of high quality, satisfactory student learning outcomes will be produced (Gerritsen et al., 2017).

Unfortunately, teacher certification has not been able to strengthen teachers' pedagogical competence and professional competence. Teacher certification has not fully provided a significant impact in improving teacher competence and has stagnated (Wiranto, 2019). The condition of the low competence of teachers who have been certified is also found in elementary school teachers in the Ajibarang District, Banyumas.

The facts on the ground show that there are still elementary school teachers in the Ajibarang District who are certified but have moderate or even low pedagogical and professional competencies. When the researchers conducted the initial study, it was

found that 357 teachers were teaching at Korwilcam Dindik Ajibarang, 187 certified teachers and 170 uncertified teachers.

Data on Teacher Performance Assessment (PKG) at the Regional Office of Dindik Ajibarang shows that 55% of certified teachers have inadequate pedagogical and professional competencies. The situation in the field corroborates this data during the initial study; principals from 3 elementary schools at Korwilcam Dindik Ajibarang said that, indeed, there are still certified teachers who do not have pedagogical competence according to standards; for example, in carrying out learning they are still teacher-centered when they should be student-centered, not make lesson plans before learning, do not understand the character of each student, the teacher does not fully master the learning material that will be delivered to students, does not use learning techniques that are by the material. These circumstances will undoubtedly have an impact on the process and achievement of learning objectives

On the other hand, some teachers have not been certified but have pedagogical and professional competence that meets the standards. Uncertified teachers conduct student-centered learning, make lesson plans before learning, master and develop material to be delivered to students, master student character, use fun learning techniques and motivate student activity during the learning process. The above fact is no different from the results of a study published by the World Bank which shows that the achievements and competencies of certified and uncertified teachers in Indonesia are relatively the same (Abbas, 2013).

The fact that there are teachers who are certified but do not yet have pedagogical and professional competence by the aims and objectives of the teacher certification program is undoubtedly a problem in the world of education. The government's demands in PP No.19 of 2005 indicate that the duties and responsibilities of teachers are weighty, so teachers must have specific quality standards to carry out their duties and responsibilities optimally, especially in improving student achievement. As explained by the Ministry of National Education, the purpose of teacher certification is to determine the feasibility of teachers in carrying out their duties as learning agents and accelerate the realization of national education goals (Aruni & Faisal, 2021).

The facts above have motivated the authors to conduct research related to comparative studies of pedagogical and professional competence of certified and uncertified teachers at public elementary schools in Ajibarang District, Banyumas. Thus, this study aims to determine the pedagogical and professional competence of certified and uncertified teachers and whether teachers who have certified educators are better than teachers who have not been certified educators at public elementary schools in Indonesia, Ajibarang District, Banyumas .

The results of the study show that there is an increase in the performance of professional teachers after they are declared to have passed certification and can get an educator professional allowance whose amount is equivalent to their primary salary (Kartowagiran, 2015). The results of other studies show a positive impact of teacher certification on the quality of education in madrasa. It can be said that teacher certification affects improving the quality of education in madrasas (Abubakar, 2016).

Other research shows that the performance of post-certified teachers can improve when they already receive the certification allowance. A performance increase has implications for strengthening the professionalism of teachers' work (Khodijah, 2013).

B. Method

This research is a comparative study. A comparative study compares two or more conditions, events, programs, and others (Jecuinna & Zielma, 2021). The researchers compared certified and uncertified teachers' pedagogical and professional competencies in this study. Comparative studies that compare situations, events, elements or components that are analyzed slightly different, such as the chronology of events, the complexity of the case or the intensity of events, the causal factors and consequences, the dominant factors underlying or caused by a situation or event will be found. This study also uses causal-comparative research, namely *ex post facto* data collected after all events occur. Then the researcher selects one or more effects (dependent variable) and examines the data by going back through time, looking for causes, seeing relationships, and understanding their meanings (Anwar, 2019).

The data collection procedure was carried out using an *ex post facto* design, as follows: 1) Researchers measured learning tools and learning activities carried out by certified and uncertified teachers to measure the pedagogical competence and professional competence of teachers; 2) Mastery of pedagogical competence and professional competence of certified and uncertified teachers on student learning outcomes; 3) The background of pedagogical competence and professional competence of teachers is placed as the primary case variable, while teachers who have and have not been certified as independent variables.

The population in this study are teachers who have been certified and teachers who have not been certified in SD Negeri in Ajibarang District, Banyumas. The population in this study were 357 public elementary school teachers who were certified, 187 teachers and 170 state elementary school teachers who were not certified. Before determining the sample, it is known that the number of public elementary schools in Ajibarang District is 33 public elementary schools with the criteria of having obtained A accreditation (excellent), as many as 23 schools and schools with B accreditation (good) there are ten schools. From these data, the total number of teachers who teach there is 357, with details of A-accredited (very good) schools that have certified 116 teachers and 103 teachers who have not been certified. Meanwhile, accredited B (good) schools have 71 teachers, and 67 have not been certified. From each elementary school, the researchers took two teachers who were certified and two who were not certified, so four teachers were taken from each elementary school as a sample. So, the total sample is 92 teachers, consisting of 46 certified and 46 uncertified teachers. Furthermore, the sampling technique uses random sampling to provide equal opportunities for each member of the population to be selected as a sample.

The data in this study were collected using questionnaires, observation interviews, and documentation. Questionnaires are used to determine the differences and similarities between certified and uncertified pedagogical and professional competencies of teachers concerning the mastery of pedagogical and professional competencies. In this study, the questionnaire used as many as 30 questions expected to support pedagogical and professional competence. Then basically, interviews, observations, and documentation are used to dig deeper related to the data generated from the questionnaire (Sugiyono, 2010).

Data analysis techniques used in this study are as follows: (1) Data tabulation. At this stage, the data that the researcher has collected is then grouped based on questionnaires and interviews to give the code. The information is then entered into a table; (2) Scoring. At this stage, the scoring was adapted from the Likert scale according to the research indicators; (3) Data Analysis. Data analysis carried out in comparative research uses non-parametric statistics because it uses an ordinal scale. Analysis of the research data using: 1) Percentage calculation; this analysis is used to determine the percentage of pedagogical and professional competencies per category, which is then described in written form. The results of the percentage calculation are used to make it easier to tell the pedagogical competence and professional competence of teachers; 2) Mann Whitney U Test parametric statistical test, used to test the comparative hypothesis; 3) Independent sample t-test, conducted to determine the difference between pedagogical competence and professional competence of certified teachers and uncertified teachers.

C. Result and Discussion

1. Pedagogical Competence of Teachers who are Certified and Teachers who are Uncertified

The analysis results show that the pedagogical competence of certified and uncertified teachers is significantly different. The pedagogical competence of certified teachers is higher than that of uncertified teachers. The results confirm that the average score of pedagogical competence of certified teachers is 100.15, and the average score of uncertified teachers is 85.72.

The teacher's pedagogical competence includes: 1) Mastering the characteristics of students from the physical, moral, social, cultural, emotional, and intellectual aspects; 2) Mastering learning theory and educational learning principles; 3) Developing a curriculum related to the subjects taught; 4) Organizing educational learning; 5) Utilizing information and communication technology for learning purposes; 6) Facilitate the development of the potential of students to actualize their various potentials; 7) Communicate effectively, empathically, and politely with students; 8) Conducting assessments and evaluations of learning processes and outcomes, 9) Utilizing the results of assessments and evaluations for the benefit of learning; and 10) Take reflective action to improve the quality of learning, for teachers who have been certified higher than teachers who have not been certified. It can

happen because teachers who have been certified carry out all indicators of pedagogical competence in carrying out their learning activities, while teachers who have not been certified do not always do so, for example, in developing the curriculum of learning materials that are taught.

From the observations, it is known that most teachers who have not been certified are pretty confused in choosing learning materials that provide learning experiences and are by learning objectives, so for the same theme, they still use a material that has been given before. Most uncertified teachers have not studied and explored the principles of teaching-learning design and applied them when designing lessons. Their awareness of the importance of having high pedagogical abilities in providing learning to students is still relatively lacking. Many teachers still think that because they are not certified, they do not need pedagogical competence, learning to the best of their ability. At the same time, high pedagogical competence must be possessed by all teachers, both certified and uncertified. Article 8 of Government Regulation no. 14 of 2005 concerning Lecturers and Teachers states that a teacher must have four essential competencies, including pedagogical competence.

The teacher's inability to manage learning materials can impact his failure to deliver learning materials. Thus, the problem of professional competence will affect the issues in teachers' pedagogical competence. Of course, it will significantly influence teachers' performance as learning facilitators. It does not need to happen when the teacher is aware that his commitment is not only determined by being certified or not (Ahyanuardi et al., 2018).

Meanwhile, certified teachers are accustomed to developing subject matter, learning methods, and media used in learning. It can be seen, for example, from the lesson plan (RPP) that is made and then implemented in learning to students in class. It shows the importance of the teacher's role in learning. The teacher plays an essential role in planning and implementing the curriculum because the teacher is the class's planner, implementer, and curriculum developer. The habits of the certified teacher show that the accredited teacher acts consistently and continuously so that it is possible to become a competent person, namely having the basic knowledge, skills, and values to do his job well and according to the standards that have been set for his profession.

Based on the research results above, it can be said that teacher certification has succeeded in strengthening teacher competence, primarily pedagogical and professional competence. It can impact the increasing quality of learning facilitated by teachers (Nur & Riandhana, 2021). Then for teachers who have not been certified, their pedagogical competence and professional competence can also be strengthened through various training organized by the Teacher Working Group (KKG) and academic supervision activities carried out by elementary school principals and school supervisors. With these two activities, they can develop their abilities to master teaching methods and learning materials (Aruni & Faisal, 2021).

There is a significant difference based on the description of the pedagogical competencies possessed by teachers who are already certified and teachers who are not certified, likewise, in practice in carrying out their duties as a teacher.

Figure 1 is a description of the pedagogical competence of certified teachers. The picture describes the pedagogical competencies of teachers who have been certified from the preparation of learning and implementation to the evaluation stage.

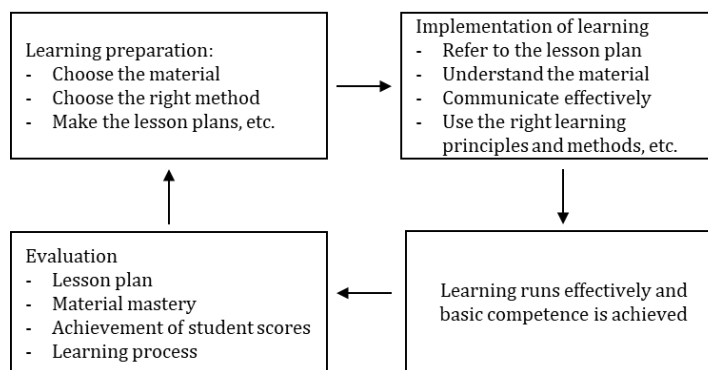


Figure 1. Diagram of certified teacher pedagogical competence

Figure 2 is a description of the pedagogical competence of uncertified teachers. The pedagogical competence of the certified and uncertified teacher is from the learning preparation stage, implementation of learning to the evaluation stage.

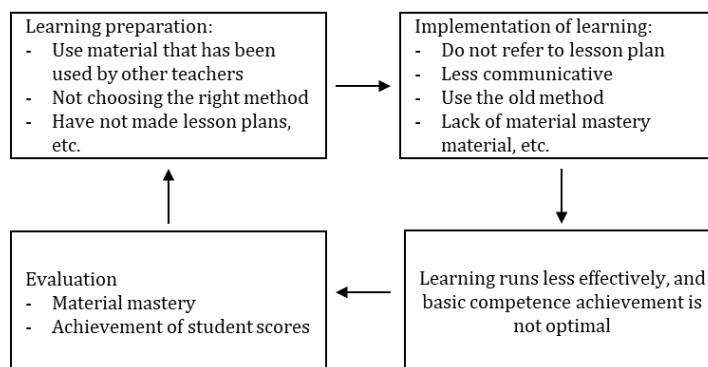


Figure 2. Diagram of uncertified teacher pedagogical competence

2. Professional Competence of Certified and Uncertified Teachers

The analysis results show that the professional competence of certified and uncertified teachers is significantly different. The professional competence of certified teachers is higher than the pedagogical competence of uncertified teachers. It is confirmed by the results of the rank score of the average professional competence of certified teachers of 66.04 and the rank of the average score of professional competence of teachers who have not been certified by 26.96.

Professional competence is the ability to master learning material broadly and deeply, enabling it to guide students to meet competency standards. With professional competence, teachers can organize learning activities that stimulate students to be more active in learning. Makes professional competence can have implications for increasing student learning motivation (Hartanti & Yuniarsih, 2018).

The professional competence of teachers includes: 1) mastering the material, conceptual structure, and scientific mindset that supports the subjects being taught; 2) Mastering competency standards and basic competencies; 3) Developing subject matter creatively; 4) Developing professionalism sustainably by taking reflective actions and 5) Utilizing information and communication technology to develop themselves, teachers who are already certified are higher than uncertified teachers. It can happen because certified teachers have received education and training to develop their professional competencies to understand and be aware of the professional competencies that must be possessed, not only as professional demands. Meanwhile, teachers who have not been certified have not received education and training to develop their professional competencies, so they have limited professional competence abilities. There may be some of them who do not know about professional competence (Dudung, 2018).

From the observations, it is known that most uncertified teachers have not mastered the subject matter that will be delivered to students and relate it to everyday life, let alone develop subject matter by learning objectives and adjusting learning methods to the material presented. It happens because they tend to imitate or copy the lesson plans that have been made by certified teachers and only read them briefly so that they are less prepared and do not master the material. They do not seek information or other learning resources to develop existing materials. They do not try to connect the material with everyday life so that students can apply it in real life and obtain concrete pictures of the concepts contained in the material, which are sometimes difficult for students in elementary school. It can happen due to uncertified teachers' lack of motivation and desire to improve their competence. Whereas, as stated in Article 8 of Government Regulation no. 14 of 2005 concerning Lecturers and Teachers, four essential competencies must be possessed by a teacher, including professional competence.

The condition of uncertified teachers above shows that they do not have professional competence because they have not mastered: 1) Discipline of knowledge as a source of learning materials; 2) the teaching materials taught; 3) Knowledge of student characteristics; 4) Knowledge of philosophy and educational goals; 5) Knowledge and mastery of teaching methods and models; 6) Mastery of the principles of learning technology; 7) Knowledge of assessment and able to plan and dream for the smooth running of the education process. The seven mastery can be used as capital to transform knowledge and skills and form character in students (Rosita et al., 2020).

Meanwhile, certified teachers are used to developing subject matter along with learning methods and media that will be used in learning, as seen from the lesson plan (RPP) that is made and then implemented in-class learning.

The above shows that the implementation of the duties of certified teachers by their professional competence is by the objectives of holding teacher certification where the purpose of certification for teachers is as a measuring tool to determine the feasibility of teachers as educators as well as central actors in the learning process.

In addition, the purpose of teacher certification is to improve the quality of the process and the quality of education; present teachers as professional figures in their fields; improve the positive image of teachers, both in the eyes of students, parents, and the community; and also increase the dignity of the teacher as an educator figure. As intended, the Ministry of National Education states that the objectives of teacher certification include: 1) Determining the feasibility of teachers in carrying out their duties as learning agents; 2) Improving teacher professionalism; 3) Improving educational processes and outcomes; 4) Accelerating the realization of national education goals. The benefits of teacher certification are for supervision and quality assurance of education personnel in the context of competency development, career development of education personnel on an ongoing basis, and improvement of higher quality training programs.

Based on the description of the professional competencies possessed by certified and uncertified teachers, it can be seen that there are significant differences, as well as in practice, in carrying out their duties as teachers. The contrast of professional competence can be seen in [Figure 3](#) and [Figure 4](#). It starts from the learning preparation, learning implementation, and evaluation stage.

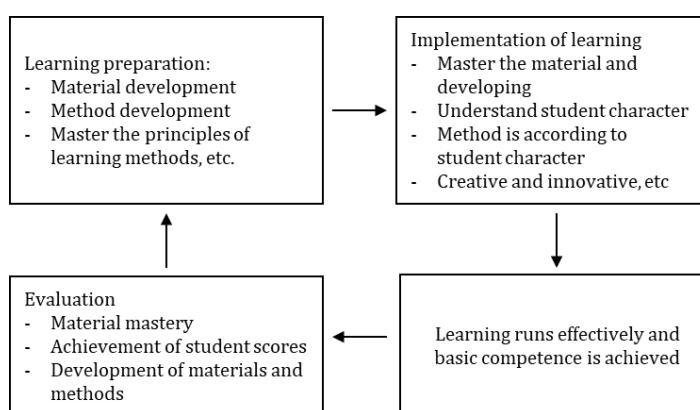


Figure 3. Diagram of certified teacher professional competence

The description of the professional competence of uncertified teachers can be seen in [Figure 4](#). It includes the learning preparation, the implementation of learning, and the evaluation stage of the uncertified teacher. In the implementation of learning, the learning process is not as effective as the certified teacher's class.

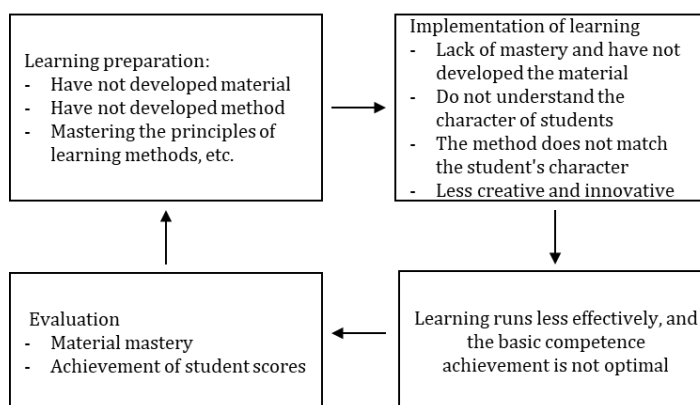


Figure 4. Diagram of uncertified teacher professional competence

3. Pedagogical and Professional Competence for Certified and Uncertified Teacher

The results of testing the third hypothesis indicate that the pedagogical competence of certified teachers is higher than that of uncertified teachers and that the professional competence of accredited teachers is higher than that of uncertified teachers in public elementary schools in Ajibarang District, Banyumas. Therefore, it can be said that certified teachers' pedagogical competence and professional competence are higher than that of uncertified teachers in public elementary schools in Ajibarang District, Banyumas.

The results of this study confirm that the pedagogical and professional competence of teachers who are not certified are significantly different from the pedagogical and professional competencies of certified teachers. The pedagogical competence and professional competence of certified educators are higher than the pedagogical and professional competencies of teachers who are not certified.

This situation proves that there is a significant difference or a gap in pedagogical competence and professional competence possessed by teachers in public elementary schools in Ajibarang District, Banyumas, because the level is not evenly distributed, where not all teachers have high competence. This situation is undoubtedly quite alarming because teachers who are not certified educators also teach in the classroom. It means that public elementary schools in Ajibarang District, Banyumas, allow their students to be educated or prepared by teachers with low competence or lack of competence in their fields. Whereas pedagogical competence is related to several teacher abilities that greatly determine the success of teachers in carrying out the learning process (Supriyono, 2017).

Another comparison can be seen from the professional competence of certified teachers, which is higher than teachers who have not been certified. Teachers who have been certified before learning prepare learning tools independently, then during the implementation of learning, maximize the utilization of resources, tools/media, and learning methods. Meanwhile, teachers who have not been certified educators before learning do not develop learning tools independently. While implementing learning, they have not maximized the utilization of resources, tools/media, and learning methods. In addition, teachers who have not been certified also have not had SI/D-IV and are less active than teachers who are certified. Although not yet certified as an educator, a teacher still has to carry out his main task, namely making learning implementation plans independently and implementing them in learning and actively looking for learning materials to be delivered to students and trying to master them. As explained in the Government Regulation of the Republic of Indonesia Number 19 of 2005 concerning National Education Standards that the ability of teachers to master the subject matter taught widely and in-depth by the standard content of the education unit program.

This study empirically proves that the pedagogical competence and professional competence of elementary school teachers in Ajibarang district who have been certified are higher than those of teachers who have not been certified. It shows that

educator certification can improve the quality of educators (teachers) and teacher professionalism.

D. Conclusion

Based on the results of the research and the results of the analysis and discussion as stated in the previous chapter, in this study, several conclusions were obtained, as follows: First, the pedagogical competence of teachers who have been certified in public elementary schools in Ajibarang District, Banyumas is high. In contrast, the pedagogical competence of teachers uncertified is lower. Second, the professional competence of certified teachers in public elementary schools in Ajibarang district, Banyumas, is high, while the professional competence of uncertified teachers is lower. Third, the pedagogical competence and professional competence of certified teachers are better than uncertified teachers in public elementary schools in Ajibarang District, Banyumas and are significantly different.

This research is limited to describing and analyzing comparative studies between certified and uncertified teachers. Based on this, the writer recommends that other researchers dig deeper into the comparison of the two variables by examining the implications of these differences on the professionalism of teachers' work and the quality of learning services provided by certified and uncertified teachers.

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