

# TurnitinTheEffectofGovernment TeacherCertificationonTeaching Performance

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## The Effect of Government Teacher Certification on Teaching Performance: Certified vs uncertified

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### ABSTRACT

The Indonesian government encourages all teachers to be certified in the hope of improving teachers' performance. The purpose of this study was to explore the effect of teacher certification on teacher performance in the northern Toraja region. Utilizing quantitative methods approach, this study randomly sampled 94 students and teachers. The students were subject to a distribution instrument to evaluate the performance of certified and uncertified teachers. To support the quantitative data a short interview was conducted to 10 randomly selected teachers regarding their perception of the relation between certification and teacher performance. The collected data were subjected to validation test, reliability test and simple linear regression test. The results show that there are 33.75% students strongly disagree with the performance of certified teachers who have been certified but there are 65.85% who agree and strongly agree with the performance of teachers who have been certified. While teachers who have not been certified 35.16% strongly disagree and disagree with the performance of teachers who have not been certified and only 53.88% agree and strongly agree. Conclusively, there is an effect of teacher certification on teaching performance although not very significant between certified and uncertified teachers. Some recommendations for the government regarding the current practice of teacher certification are included.

### 1. Introduction

Teacher certification is mandatory to all teachers in Indonesia from elementary to secondary levels. Teachers who have certification are considered as professional teachers in their fields and are considered capable of transferring their knowledge to students (Fernandes et al., 2021). In general, teachers are one of the main sources of knowledge for students and teachers have indicators that determine the quality of education starting from elementary schools, junior high schools, high schools and universities (Zhu & Shek, 2020). All teachers are equipped with good competence in designing and carrying out their duties as professional teachers in their fields (van Dijk et al., 2020). In the Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System in the preamble of letter c, it is stated that national education must be able to guarantee equity, improve quality, as well as the relevance and efficiency of teachers. Therefore, education management in Indonesia prepares itself to face challenges according to the needs, demands of society and changes in local, national and international life (Helda & Syahrani, 2022). This goes in parallel with

education improvement that needs to be carried out continuously and development of concepts and principles that are mutually planned, directed and sustainable. Accordingly, it is important to increase the competence and welfare of teachers to be able to accomplish these targets (Churiyah et al., 2020). However, the outbreak of Covid-19 pandemic, which started in China in early 2019 and spread throughout the world including Indonesia, has brought unanticipated (Christidis & Christodoulou, 2020). During this unprecedented time, teachers and educators seem to lose grip in transitioning to the new normal, and the long-established concepts like teacher certification had to undergo some changes. The Covid-19 pandemic has made education system around the globe transitions to online delivery. This has put teachers under the obligation to have multiple competencies and develop their capacity for online learning delivery (Chinazzi et al., 2020). Prior to the COVID-19 pandemic, the Indonesian government had designed and implemented educator certification for teacher. Certification here refers to monetary reward granted to teachers who carry out their duties and responsibilities as professionals and contribute in

setting the success of students in their fields (Putnam & Borko, 2000). It proves that the government of Indonesia has prioritized the welfare of educators and encouraged teachers to obtain certification in the hope of producing better performance and eventually improving the quality of education (Tang et al., 2021).

1 Isnaeni et al., (2018) reported that certified teachers are able to carry out their duties and responsibilities professionally by continuing the development of four competencies: pedagogic competence, professional competence, personality competence, and social competence. Similar research conducted by Sihotang et al., (2019) at Love Immanuel School, North Jakarta in 2020-2021 reported that 50% of teachers at elementary, junior high, and high school levels met the qualification standards to be certified.

However, only 25% of those 50% who were actually certified in the same year. Another fact as a reference in this research is a survey conducted by a postgraduate program in the North Toraja region to teachers in schools. From the survey, there are about 32 people out of 59 people who have not been certified. From the number surveyed 59, 23% perceived problems when preparing learning materials for online learning. It reflects weakness of teacher's pedagogic competence. The survey also indicates that teachers in the Toraja area still find it difficult to use technology, which is one of the obstacles to partake in teacher certification training and selection. In terms of performance, 62% of the teachers have difficulty in preparing and implementing the materials for students (Sopaheluwakan et al., 2020). In the interviews, some teachers in Toraja argue that teachers are still burdened with massive administrative reporting work. These additional responsibility is believed to have impacted teachers' poor performance in preparing and implementing materials (Cipta et al., 2021).

The findings of previous research (Sun et al., 2022) indicated a significant effect (67%) of certified teachers of junior high school and their performance. Teachers' performance is first and foremost affected by teacher's discipline, then by teacher's professionalism, and simultaneously by both factors. In this study, teachers focused on discipline and improving their performance according to their respective competencies. This is in line with the purpose of the certification concept.

The Standards of Qualification of Educator Competence and Certification of Educators in Indonesia are stipulated in the Law on the National Education System Number 20 of 2003 concerning the National Education System and the Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers, and the Regulation of the Minister of National Education Number 16 of 2005. However, it is alleged that 18 years of implementing certification policy has not been able to maximally increase the competence of educators because teachers were overwhelmed with administrative tasks which

often overtaxes their performance (Winarno & Hermana, 2019).

Indonesia has been delivering teacher certification in batches. For example, in the selection stage 1 batch 5, Sun et al., (2022) had 105,643 teachers applying from all around Indonesia. There were only 49,815 teachers (47%) passed the administrative selection, and only 20,315 (40, 1%) teachers who did not pass the certification (59%) and the remaining passed the certification. Meanwhile, from the data collected in North Toraja Regency, 600 passed the administrative process, and 79 passed the certification. The implication is that many teachers failed to meet the requirements to perform their duties well because they are tied to various administrative tasks related to learning. Teachers who have not received certification are suspected of not being diligent in administration and not influencing the performance that has been regulated. In this case, the government needs to be advocated to simplify the administrative tasks regarding teacher certification. This study attempts to highlight the issues around teacher certification and seeks the answer to these two questions: 1) does having educator certificate influence teacher's performance, and 2) does uncertified teachers perform differently.

## 2. Literature Review

### 2.1 Definition of Certification

Certification is stipulated in the Law of the Republic of Indonesia No. 14 of 2005. Certification is defined as a form of a competency test designed as the basis for awarding certificates and incentives for teachers and lecturers. More specifically, in Article 8 of this Law, teachers are required to have academic qualifications, competencies in their respective fields, educator certificates, physical and spiritual health, and the ability to realize the goals of national education (Rahardja et al., 2020).

The purpose of teacher certification in Indonesia is to improve the quality of teacher's work which results in improved performance and competence to contribute in increasing the quality of education in Indonesia (Hanushek & Woessmann, 2020). Also, an educator certificate is a formal evidence of acknowledgment for teachers and lecturers who have met the standard competence and performance thus deserve for monetary reward (Hartiwi et al., 2020). In other words, certification is a means to provide additional funding to cover teachers' cost of living and a process of fulfilling educator competence with the ultimate goal to achieve the hopes and visions of national education in Indonesia (Day et al., 2016). To embody this mission, Law of the Republic of Indonesia Number 20 of 2003 Article 42 establishes a policy direction which requires educators to have minimum qualifications and certifications according to their respective competence, physically and mentally healthy, and the ability to realize educational goals.

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This is reaffirmed in Article 28 paragraph (1) of PP RI Number 19 of 2005 concerning National Education Standards, and Article 8 of the Law of the Republic of Indonesia Number 14 of 2005 which mandates teachers to have a minimum academic qualification of D4/S1 in their respective field, the capacity to design and deliver learning material, and competence as an agent which is formally evidenced by educator certificate (Tanang & Abu, 2014). In this case, while minimum academic qualifications are obtained through higher education, educator competency certificates are obtained through certification exam.

## 2.2 Driving Factors of Certification

Almaududi, (2019) teacher certification is a means to improve teacher performance in order that they will be capable of addressing issues in the world of education in Indonesia. The low ability of students may reflect the low quality of learning process in schools delivered by teachers and their performance, which should be the key factor in successful learning process. Therefore, teachers could potentially contribute to the student's low achievement in learning. This issue has become the main concern of Indonesian government who, through the provision of certification, expects the teachers in Indonesia to be more motivated will be more enthusiastic in improving their performance (Fajari & Chumdari, 2021). In order to achieve this, the government issued the law of regional autonomy whose foci include shifting education management from the central government to local governments.

Since then, the management of education in Indonesia has undergone dramatic changes. In terms of management authority, the progress is evident from the source of policy which shifts from central to regional government. Furthermore, the National Education System stipulated in the Law 20 of 2003 stated that the responsibility, authority, and resources for education services have been transferred from the central to the regional level and even to the school level in order to provide better access for teachers to obtain national certification from the government (Siry, 2011).

## 2.3 Certification Implementation Basis

Certification for in-service teachers as an effort to improve performance, in Indonesia is carried out on a legal basis. Decree of the Minister of National Education Number 056/O/2007 concerning the Establishment of a Teacher Certification Consortium, Decree of the Minister of National Education concerning the Appointment of Universities to Organize Certification aims to improve the quality of National education. From these conclusions, obtained indicators of the effect of certification in this study which include: fulfillment of competence: Pedagogic, social, professional and personality.

## 2.4 Job Satisfaction

Job satisfaction is related to some outputs that can be achieved by teachers. Regarding work performance, teachers feel happy after getting certification so they tend to be more productive at work. In other words, the feeling of contentment in carrying out tasks impacts work productivity. Another significant factor to job satisfaction is organizational citizenship behavior. Satisfaction at work and commitment to dedicate time and ability for profession will enable a teacher to contribute to perform well and fulfill the expectations rendered to them, and eventually bring about the organizational success. Furthermore, job satisfaction and commitment of teachers indirectly contribute to their students' accomplishing maximum results. In order to increase teacher's satisfaction at work, they need to first have access to renew their motivation and commitment to devote time, energy, and ability in order to deliver better performance and develop their competencies.

## 2.5. Indicators Measured

**Table 1.** Teacher Performance Indicators

| Performance Indicator Variables |   |
|---------------------------------|---|
| 1                               | Able to make plans such as syllabus, Learning Process Plan (RPP) and evaluation forms |
| 2                               | Able to prepare learning materials and tools  |
| 3                               | Able to master active learning methods  |
| 4                               | Able to implement learning strategies   |
| 5                               | Able to give good and correct assignments   |
| 6                               | Able to manage class well   |
| 7                               | Giving an objective assessment  |
| 8                               | Conducting evaluation   |

Table 1 shows the indicators of teacher performance that must be measured during their daily performance in the classroom. Teachers must be able to prepare materials, lesson plans, and assessments, as well as have a mastery of learning models and implement such models so that the students can accept and understand easily.

**Table 2.** Indicators of Teacher Competency

| Indicators of Successful Teacher Certification |                         |
|--|-------------------------|
| 1  | Pedagogic Competence    |
| 2  | Professional Competence |
| 3  | Social Competence       |
| 4  | Personal Competence     |

Table 2 shows four indicators evaluated in the assessment of teacher competency. Each competency has an own value but all are interrelated. The government of Indonesia refers to this indicator when establishing teacher certification process for teachers who excel and meet the criteria.

### 3. Method

This quantitative approach analyzing certified and uncertified school teachers, and students in northern Toraja, Indonesia between 10 May and 10 June 2022, or exactly one month. The students and teachers (n=94) were from elementary school, junior high school, and high school. The competency instrument engaged students as the subjects to assess the performance of their teachers (the objects), both certified and uncertified.

The data collection technique used in this study was to distributed instruments that had been pre-validated and declared reliable to students and teachers (Ercikan & Pellegrino, 2017). In addition, to support the quantitative data, this study conducted a short interview sessions to 10 randomly selected teachers. Interview were conducted to confirm and align the data obtained from the results of the quantitative findings. The instrument was designed to determine the responses of teachers and students in assessing teacher certification as measured by four competencies on teacher performance. The results of interviews were designed and adjusted to the indicators studied (Bem, 2021). The design in this study was a test involving the variables of certified teachers, non-certified teachers, and job satisfaction to observe the potential effect of teacher certification on quality and performance improvement and how non-certified teachers are (Berlinski & Ramos, 2020).

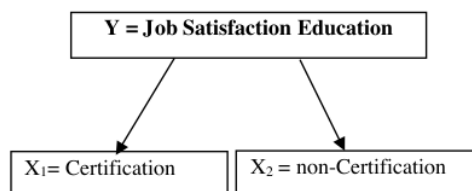


Figure 1. Research Design

Data were subject to quantitative analysis using a simple linear regression test to assess the validation, reliability, frequency distribution, mean, median, mode, and standard deviation (Denscombe, 2016), (Denscombe, 2014). In this study, the effect of teacher certification on educator performance or job satisfaction was tested, which means if R count is greater than R. Table, then  $H_0$  is accepted, but if R count is higher than  $H_a$  is rejected (Mesiti et al., 2021). In other words, if  $H_0$  then there is an effect of teacher certification on performance. Then the researchers conducted interview sessions with teachers who were certified and not certified. The results of interviews were coded with the stages of presenting data, reducing data and drawing conclusions and aligning quantitative data. (Tamminen & Deibel, 2018). This step was done only to ensure that the teachers' answers to the instruments that have been distributed can be accounted for primarily (Lunenburg & Irby, 2008).

### 4. Findings

Data obtained from the instruments distributed to teachers and the results of interviews with teachers in the field have been collected and analyzed by the research process. This research was conducted to summarize the answers and draw an accurate conclusion to answer the question from the background of the problem, where is there an effect of certified teachers on performance or job satisfaction with non-certified teachers? Because the background was initially discussed, there are still many teachers who are weak in pedagogic competence and professional competence, while the government has required all teachers to be certified and the expected performance is not as high as the achievement. The following sections detailed the results of quantitative and qualitative data analysis.

#### 4.1. Validity and Reliability of Certification Data Results

Table 3. Validation of Certification

|  | Pearson Correlation | 1  |
|--|---------------------|----|
| Total Teacher Certification Validation | Sig. (2-tailed)     |    |
|  | N                   | 94 |

Based on Table 3, it can be seen that the instrument items in the certified teacher indicator are greater than 0.05. In this sense, all instruments in this study are declared "Valid", because each question item is greater than R. Table or R count is greater than R. Table.

Table 4. Reliability Test

| Reliability Statistics |  |            |  |
|------------------------|--|------------|--|
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |  |
| .849                   | .910   | 25         |  |

All certified instruments given to teachers in this study are deemed reliable because Cronbach's Alpha is greater than 0.7, namely 0.849. Instruments given to teachers who have been certified can be used to test and standardize in determining whether there is an effect of certification on teacher performance and the data shows reliable.

#### 4.2. Uncertified Teachers

**Table 5.** Reliability of non-certified teachers

| Reliability Statistics |  |            |
|------------------------|--|------------|
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .918                   | .923   | 25         |

From Table 5, it can be seen that all instruments in this study are deemed reliable because Cronbach's Alpha is greater than 0.7, namely 0.918. This shows that all the instruments compiled by researchers and given to teachers were acceptable and could be used as benchmarks to observe whether the status of certified and uncertified influenced teacher's performance. These data indicate that the results can be interpreted into one sentence and align this data with other source data before drawing final conclusions.

**Table 6.** Reliability of Job Satisfaction Instruments

| Reliability Statistics |  |            |
|------------------------|--|------------|
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .962                   | .964   | 25         |

From Table 6 it can be seen that all the instruments in this study are deemed reliable because Cronbach's Alpha is greater than 0.7, namely 0.962.

**Table 7.** Educator Job Satisfaction Uncertified

| ANOVA      |                |    |             |      |                   |
|------------|----------------|----|-------------|------|-------------------|
| Model      | Sum of Squares | df | Mean Square | F    | Sig.              |
| Regression | 3.655          | 1  | 3.655       | .021 | .884 <sup>a</sup> |
| Residual   | 6301.422       | 37 | 170.309     |      |                   |
| Total      | 6305.077       | 38 |             |      |                   |

a. Dependent Variable: Job Satisfaction

b. Predictors: (Constant), Uncertified

**Table 8.** Educator Job Satisfaction Certifikasi

| ANOVA      |                |    |             |        |                   |
|------------|----------------|----|-------------|--------|-------------------|
| Model      | Sum of Squares | df | Mean Square | F      | Sig.              |
| Regression | 4951.982       | 1  | 4951.982    | 83.891 | .000 <sup>b</sup> |
| Residual   | 5430.657       | 92 | 59.029      |        |                   |
| Total      | 10382.638      | 93 |             |        |                   |

a. Dependent Variable: Job Satisfaction

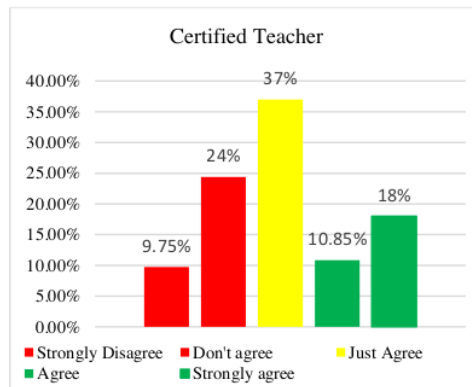
b. Predictors: (Constant), Certification

From the results of the analysis of Table 7, Sig 0.884 is greater than 0.05. This means that the variable of uncertified teachers has no effect on job satisfaction. Meanwhile, from the analysis of Table 8 above, Sig 0.000 is smaller than 0.05, meaning the certification affects teachers' job satisfaction.

**Table 9.** Frequency Distribution of Certified Teachers and Job Satisfaction

Statistics of the Frequency of Certified Teachers on Job Satisfaction

|        | Certified Teacher | Job Satisfaction of Educator |
|--------|-------------------|------------------------------|
| N      | Valid             | 94                           |
|        | Missing           | 0                            |
| Mean   | 91.05             | 89.40                        |
| Median | 92.00             | 94.00                        |
| Mode   | 93                | 95                           |
| Sum    | 8559              | 8404                         |



**Figure 2.** The Perception of Certified Teachers on the Influence of Teaching Performance

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Figure 2 shows that the response of assessing the certified teacher's instrument. From 94 respondents, 9.75% strongly disagree with the performance of certified teachers, 24% disagree, 37% quite agree, 10, 87 agree and 18% strongly agree with the performance of certified teachers. The red bar chart shows there is a visible concern that the performance of certified teachers still needs to be improved by providing training.

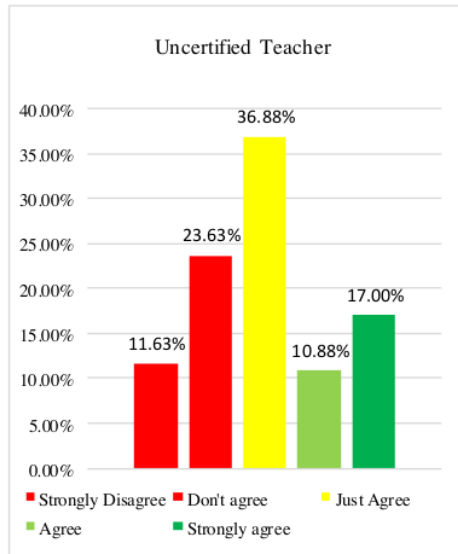


Figure 3. Uncertified Teacher Bar Chart

From Figure 3 it can be seen that the respondents' assessment of the performance of teachers who have not been certified. The number of respondents who strongly disagree with the performance of uncertified teachers are 11.63%, 23.63% disagree, 38.88% quite agree, 10.88% agree and 17.10% strongly agree in

other words, the difference in performance between certified and uncertified teachers is not too significant. However, by comparing Figure 2 and Figure 3, certified teachers still perform better than uncertified teachers.

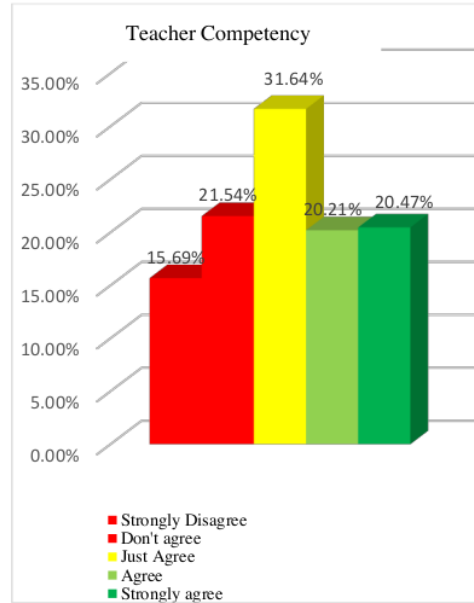


Figure 4. Teacher Competency Indicator Bar Chart

Figure 4 shows the respondents' assessment of teacher competence in North Toraja. From all respondents, 15.69% strongly disagreed, 21.54% disagreed and 31.34% quite agreed with the mastery of four teacher competencies in North Toraja. However, 21% agreed and 47% strongly agreed. These results indicate that there needs to conduct regular teacher competency test training in the northern Toraja region.

Table 10. Coding of Interview Results with Certified and Uncertified Teachers

| Indicator           | Interpretation  |
|---------------------|---|
| Certified Teacher   | Teachers develop competencies; prepare the material, lesson plan, and assessment indicators. Teachers are not ready for Pedagogic Competence, Teachers face Difficulty in Professional Competence |
| Job Satisfaction    | Difficulties in implementing the changing curriculum  |
| Uncertified Teacher | Lack of Pedagogic Competence Readiness, Teachers Difficulty in Professional Competence, Difficulty changing curriculum, Lack of training  |

Data decoding in Table 10 shows there remain some obstacles faced by certified teachers when designing materials according to the new curriculum and accomplishing the success of Pedagogic Competence and Professional Competence. Meanwhile, uncertified teachers had difficulties in pedagogic competence and professional competence. They mentioned the need for special training for teachers in North Toraja to prepare materials, design learning models for each subject, and to navigate the use of media technology media for online learning process.

## 5. Discussion

In the background section, the purpose of this research is to determine the effect of teacher certification on teacher performance, to observe the difference in performance between certified and uncertified teachers and to find out the level of competence of teachers in the northern part of Toraja. Based on the results of the analysis, there was an effect of teacher certification on the improvement teacher performance. This is in line with a study by Qowaid, (2017) that by expressing appreciation to teachers who are the main source of learning in schools can improve performance for the better. ANOVA test found a not too significant difference between certified and uncertified teachers. This finding is in line with the theory that teachers who are given additional living funds through certification show better performance in their daily tasks at school (Munastiwi & Puryono, 2021).

### 5.1. The Effect of Teacher Certification on Teacher Performance in Toraja

The instrument used to measure the effect of teacher certification on job satisfaction in Table 3 has been declared valid, so this study collects data and conducts an early stage of reliability test. The results of the reliability of the teacher certification instrument were 0.849, or above 0.05 with Cronbach's Alpha (Table 4). This shows that the instrument can be used to determine whether there is an effect or not by assuming the hypothesis at the beginning that effect does exist.

The results of the validation of instruments to observe the relation between uncertified teachers and job satisfaction are also declared valid as in Table 5 with Cronbach's Alpha 918. In the same way the researchers conducted validation tests and reliability tests on teacher performance indicators and in this case the research found that the instruments tested were valid and had been tested. From Table 6 it can be seen that Cronbach's Alpha 962 has been reliable.

Thus, by looking at the validation and of the instrument being tested, the instrument is feasible to continue testing for linear regression to prove the allegation or hypothesis that there is a flow of certification on improving teacher performance. This

validation and reliability test is in line with the theory (Martínez-Lorca et al., 2020) that the instrument shall be continued if the validation and reliability test results are found below 0.05. Further, from Table 8 of the Regression Test, it is clear that the results of data analysis show an influence of certified teacher variables on job satisfaction. The R count with sig 0.000 smaller than R Table 0.05 which means certified teachers have a positive effect on improving the performance of educators in the environment. Schools in developing learning and implementing materials for students. Teachers who have been certified are given additional opinions from the government.

In this case, as evidenced by the results of interviews with teachers and the results of coding in Table 10, the teacher argues that there is an intention to develop pedagogic competence by attending training and developing themselves in improving their professional competence. Table 10 shows that there is an effort from the teacher to improve performance and service to students by spending additional time with students who do not understand the teaching material in the North Toraja Region.

This has a positive impact on students, society, and eventually, the progress of the nation's generation which has been the government's focus of development. Certified teachers demonstrate thorough preparation, such as compiling a syllabus, lesson plans, designing materials to be easily understood by students, preparing teaching aids in form of modules and other devices to facilitate learning process before it starts. However, the findings also indicate that these teachers have not been equipped with adequate technology, while the uncertified teachers cannot be resourced with technology devices. This is in accordance with the theory (van Dijk et al., 2020) that providing assistance to teachers in form of certification can improve performance to help teachers better focus in carrying out their performance.

Meanwhile, from Table 8 above, it is evident that uncertified teachers have no effect on Job Satisfaction. This is proven by the ANOVA test with a Sig of 0.884 and greater than R Table 0.05. In the analysis of this study, some teachers who argue that certification is not a guarantee in improved performance and quality of teacher competence. However, data shows that uncertified teachers still need support for allowances by participating in a government program called "certification".

In addition to the positive impact revealed by certified teachers during the interview session, there are some problems they honestly expressed regarding optimal online learning process, teaching, and preparedness in their professional competence. This gives rise to an assessment from students of teachers, in which 9.75% of students strongly disagreed and 24% disagreed that their teachers have demonstrated good performance during online learning delivery. This is in



line with the theory that the under-optimum learning process may be due to obstacles which teacher cannot address (Lumbantoruan, 2022).

This finding has a positive impact on the progress of education in Indonesia. It suggests that if teachers are not immediately certified, it will have a negative impact on their performance in teaching preparation and delivery to students. In theory, it is said that teachers must prepare materials and tools for the learning process (Chang & Lai, 2021). Teacher performance will further decline if the government does not immediately facilitate teacher certification which enables the teachers to spend the incentives from certification to carry out personal and professional development, and then help students develop themselves.

### 5.2. The Influence of Uncertified Teachers on Educator Performance

This research showed that there is a very significant effect of the status of uncertified with teacher's performance. We establish a trial learning environment to find out whether certified teachers affect the performance of uncertified teachers. The answer is no. Based on the results instrument and interview results (Table 5), it is clear that the instrument being tested is valid and has a rating with Cronbach's Alpha 0.918. This is what convinced the researcher to carry out a regression test as shown in Table 7, which indicates that there is no influence between uncertified teachers on performance.

The ANOVA test from the objective table shows sig 0.884, which means that the R. Count is greater than the R. Table and explains that the two variables do not affect each other. In the third bar chart, it is clear that 11.63% of respondent strongly disagreed with the performance of uncertified teachers and 23.63% disagreed.

This is slightly worse than a certified teacher. Therefore, these findings are in line with the theory that teachers should be given equal distribution of certification and get the same rights (Latiana, 2010). In this discussion, it can be concluded. That, even though they are not given certification, teachers still carry out their performance as teachers. Teachers who have not been certified still carry out performance such as designing teaching materials and implementing materials properly.

However, there is an obstacle for uncertified teachers, namely lack ability to obtain technological facilities to assist them in upskilling knowledge and professional competence. The schools can only provide a limited number of devices, so the teachers must take turns to use them. Consequently, it disrupts the learning process for students. This is in line with the theory, that teachers should be provided with sufficient facilities to support their performance (Copriady et al., 2021).

### 5.3. Effect of Certified and Non-Certified Teachers on Employment in the Toraja region

A study by Agustina et al., (2020) reported an effect on teacher performance. The findings in this study indicate that certified teachers are more active than uncertified teachers. Table 8 shows that there is a very significant effect between teacher certification on performance, namely R count 0.00 and R. Table 0.05.

However, if the instrument results are analyzed from both certified and uncertified teachers, the bar charts intersect each other. From the bar chart of Figure 4, it can be seen that there is a wedge of opinion, which is around 15.6% who strongly disagree with the performance of certified and uncertified teachers. This is reinforced by Table 2 and Table 3 in which some students strongly disagree and disagree with the teacher's performance. It shows that even though teachers are given certification as a standard to earn additional income, it is still necessary to provide technical assistance in the form of professional training and electronic device for teachers in designing and preparing student materials.

From the results of the interview session and Table 10, certified teachers and non-certified teachers said they needed pedagogic competency training from experts. This is because the curriculum is constantly changing and needs to be adapted to technological developments. Teachers in the present study perceived that in order to improve their competency, the government should hold regular competency training for teachers who are the main source in creating student achievement. Teachers also argue that certification process does not need to be tested and other competency tests should be negated because certification and perpetual competencies are two different things, and certification is a tool to obtain additional income for teachers. Another problem expressed by the teachers was the difficulty in using technology media to help deliver material to students. It needs to be addressed by enabling discussion session in the class and providing training in utilizing media and electronic tools. This is in line with a previous research (Hamuddin, 2015) that it is necessary to carry out discussions in the media in the form of classrooms. This is confirmed and paralleled with the students' assessments in Figures 2, 3 and 4. Students disagree with the teacher's performance, especially with regards to inability to overcome difficulties in operating technology, designing technology assisted learning and implementing material with technology assistance. This is in line with the theory that obstacles is inevitably producing difficulties in teaching learning process (Lumbantoruan & Male, 2022).

To overcome the problems found in this study, training for teachers is needed. However, it must be acknowledged that there is limited source of funds prepared by school management in Toraja to conduct training and purchase of pedagogic training aids and other learning aids. One of the teachers expect help

through the assistance of teacher certification. This is in line with the opinion Albay & Eisma, (2021) that the welfare of teachers must be considered for the smooth process of designing and implementing learning.

## 6. Conclusions

This study demonstrated that there is a significant effect between teacher certification and their teaching performance and job satisfaction. More specifically, teacher certification has a positive effect on improving the quality of education in the North Toraja region. While around 33% students disagreed with the performance of their teachers, the rest were in unison that certified teachers had better performance and it leads into a satisfaction in doing their teaching activities than the uncertified ones, although the difference was not significant. It highlighted a gap with previous studies which mostly reported more significant differences between certified and uncertified teachers regarding their performance at school. Furthermore, uncertified teachers still expect to receive income assistance through teacher certification. This research recommends that certification shall be continued and improved by providing scheduled and routine training for technology upskilling among teachers.

## 7. Acknowledgement

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