



The Relationship Between Teacher Certification and Improving the Quality of Education at Hinai State High School 1

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ABSTRACT

This study aims to determine the relationship between teacher certification and the quality of education at SMA Negeri 1 Hinai. The research employed a quantitative approach supported by qualitative data through observation, questionnaires, and interviews. The respondents consisted of 30 certified teachers. The analysis results show a significant relationship between teacher certification and the quality of education. The product moment correlation test obtained a value of $r = 0,822$, which is interpreted as very strong, while the t-test revealed $t_{count} (7.632) > t_{table} (2.048)$. This indicates that the better the implementation of teacher certification, the higher the quality of education achieved. The interview findings support these results: the principal observed that certified teachers are more disciplined, administratively organized, and actively engaged in self-development. Non-certified teachers considered certification beneficial but often constrained by motivation and administrative burdens. Meanwhile, students perceived certified teachers as more structured, interactive, and engaging in teaching, although the utilization of technological facilities remained limited. The study concludes that teacher certification has a significant contribution to improving the quality of education; however, its effectiveness needs to be supported by teachers' internal motivation, academic supervision, and adequate school facilities.

ARTICLE INFO

Article history:
Received
01 September 2025
Revised
10 Oktober 2025
Accepted
09 November 2025

Keywords

Teacher Certification, Quality of Education, SMA Negeri 1 Hinai

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INTRODUCTION

Education is a strategic factor in shaping the quality of human resources and determining the progress of a nation. Improving the quality of education must be carried out in a planned and sustainable manner, because education not only functions as a process of knowledge transfer, but also as a means of shaping

the character and personality of students so that they are able to adapt and play an active role in society. In the context of globalization and rapid

technological development, Indonesia is required to have a quality education system supported by professional teachers who are competent and highly dedicated to their duties.

Teachers play a central role in the success of the education system. The quality of learning and student outcomes are highly dependent on the competence and professionalism of teachers. Martini in Pardede (2020) emphasizes that the low quality of education in Indonesia is not solely due to the weaknesses of students, but also due to suboptimal learning processes and the low quality of teachers. This shows that improving the quality of education will be difficult to achieve without improving the professionalism of teachers. Teachers not only play the role of educators, but also as mentors, trainers, assessors, and role models for students.

Law Number 14 of 2005 concerning Teachers and Lecturers emphasizes that teachers are professional educators whose main duties are to educate, teach, guide, direct, train, assess, and evaluate students. Professional teachers must have a minimum academic qualification of a bachelor's degree (S1) or a four-year diploma (D-IV), master pedagogical, personal, social, and professional competencies, and have an educator certificate (Muamar, 2017). In this context, teacher professionalism is not only measured through formal certification, but also through the ability to adapt to the times, the work environment, and commitment to improving the quality of learning.

In an effort to improve the quality and professionalism of teachers, the government implements a teacher certification program as a form of recognition of teachers' competence in carrying out their professional duties. Mulyasa in Anjarsari (2022) explains that teacher certification is a process of recognizing that teachers have met the competency standards for providing educational services. Therefore, certification is expected to not only be an administrative formality but also have a real impact on improving the quality of learning and student learning outcomes.

The following data shows the number of high school teachers in Indonesia by region, indicating the proportion of certified and uncertified teachers.

Table 1.
Data on the Number of High School Teachers in 2025

No	Region	Total High School Teachers	Certified High School Teachers	Non-Certified High School Teachers
1	Indonesia	± 340,000	± 180,000	± 160,000
2	North Sumatra	32,352	23,861	9,491
3	Langkat	1,682	1,213	469

4	Hinai	41	30	11
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Source: data.dikdasmen.go.id (2025)

The data in Table 1 shows that nationally, the number of certified teachers is quite large, but there are still distribution imbalances in several regions. At the sub-district level, such as in Hinai, some teachers still have non-certified status. This imbalance is an important basis for reviewing the effectiveness of the teacher certification program, particularly in relation to improving the quality of learning at the school level.

Another issue that arises relates to the motivation of teachers in participating in the certification program. Based on observations in the field, some teachers participate in certification more because of financial incentives than a desire to improve their professionalism. Hasanah and Kristiawan in Nawawi (2022) state that the certification program should be a means of improving the quality of education, because an increase in competence should be accompanied by an increase in welfare. However, if teachers' orientation emphasizes economic aspects, the main objective of certification has the potential to deviate from its essence.

In addition, the post-certification continuous evaluation system is still not optimal. There is no mechanism that consistently assesses the application of certified teachers' competencies in teaching and learning activities. Fatkuroji in Elwijaya (2021) emphasizes that education policies must be formulated with structured and continuous steps so that educational goals can be achieved comprehensively. At SMA Negeri 1 Hinai, several certified teachers have not been able to meet the minimum workload of 24 hours per week at one school, so they have to add hours at other schools. However, this increase in workload is not always accompanied by an improvement in the quality of learning.

Based on the above description, this study was conducted to analyze the relationship between teacher certification and improvements in the quality of education at SMA Negeri 1 Hinai. This study aims to determine the extent to which teacher certification contributes to the effectiveness of learning and student learning outcomes, as well as to provide recommendations for schools and policy makers in improving teacher professionalism and the quality of education in a sustainable manner.

RESEARCH METHOD

This research was conducted at SMA Negeri 1 Hinai, Hinai District, Langkat Regency, North Sumatra Province. This location was chosen because the school is one of the educational institutions that has implemented a

comprehensive teacher certification program. The research was conducted over a period of six months, from April to September 2025. The population in this study consisted of all 41 teachers teaching at SMA Negeri 1 Hinai, with a sample of 30 teachers who had obtained teaching certificates. Sampling was conducted using *purposive sampling* based on specific criteria, namely teachers who had participated in and passed the certification program.

The research procedure was carried out in several stages, including preparation, data collection, data analysis, and report writing. In the preparation stage, the researcher compiled a research proposal that included the background, objectives, benefits, theoretical review, methods, and research schedule. After obtaining approval and permission for the research from the school, the researchers prepared research instruments in the form of observation sheets, interview guidelines, and questionnaires. The data collection stage was carried out through observation of the learning activities of certified teachers, distribution of questionnaires to respondents, and interviews with the principal, non-certified teachers, and students to obtain additional information.

The data collection techniques consisted of three main methods, namely observation, interviews, and questionnaires. Observations were conducted non-participatory by observing the learning activities carried out by certified teachers. Interviews were used to obtain in-depth information about the views of the principal, non-certified teachers, and students on the effectiveness of teacher certification in improving the quality of education. Meanwhile, questionnaires were designed using a Likert scale to measure the perceptions of certified teachers regarding the implementation of certification and its impact on the learning process.

RESULTS AND DISCUSSION

Result

The results of this study present descriptive data on the conditions at SMA Negeri 1 Hinai, the profile of respondents, and the results of statistical analysis that describe the relationship between teacher certification and the quality of education at the school.

SMA Negeri 1 Hinai is a senior high school that was established in 1991/1992 in Hinai District, Langkat Regency, North Sumatra. This school has been accredited "A" with a score of 91 and has 18 study groups. The learning facilities are quite complete, including a computer lab, science lab, language lab,

library, prayer room, adequate classrooms, and 10 projectors (infocus) stored in the administration office that teachers can use as needed.

Based on observations and interviews, there are 41 teachers at SMA Negeri 1 Hinai, consisting of 30 certified teachers and 11 uncertified teachers. There were 30 certified teachers who participated in the study, with the majority being over 50 years old (43.3%) and having more than 20 years of teaching experience (53.3%). Most of the respondents were female (56.7%). This data shows that the teaching staff at SMA Negeri 1 Hinai are experienced and professionally stable.

Research Data Description

The questionnaire results for the Teacher Certification (X) variable showed a high average score, ranging from 3.8 to 3.9 on a scale of 4. The highest score was for the indicators of formal education and peer cooperation (3.9), while the lowest score was for the indicators of learning innovation and work experience validation (3.8). This shows that certified teachers at SMA Negeri 1 Hinai already have good professional competence in academic and collaborative fields, but still need improvement in teaching creativity and learning technology innovation.

Meanwhile, the questionnaire results for the Education Quality (Y) variable showed an average score of between 3.77 and 3.97. The highest aspect was teacher competence and experience (3.97), while the lowest aspect was funding and community service activities (3.77). These findings show that the

quality of education at SMA Negeri 1 Hinai is relatively good, with the main support coming from teacher competence and the availability of learning facilities.

1. Instrument Validity and Reliability Test

The validity test was conducted using Product Moment correlation with 30 respondents and a significance level of 5%. The results showed that all items in the Teacher Certification variable had a calculated r value between 0.454 and 0.915, all of which were greater than the table r (0.361), thus declaring them valid. Similarly, for the Education Quality variable, all items had a calculated r value between 0.504 and 0.953 (> 0.361), which means that all questions were valid and suitable for use. The reliability test results using Cronbach's Alpha technique produced a value of $\alpha = 0.909$ for the Teacher Certification variable and $\alpha = 0.925$ for the Education Quality variable. Because both α values are > 0.70 , the research instrument is declared reliable, indicating strong internal consistency in each measurement indicator.

2. Descriptive Statistical Analysis

The descriptive analysis results show that the Teacher Certification variable has a mean value of 38.43 with a standard deviation of 2.800, while the Education Quality variable has a mean value of 38.47 with a standard deviation of 2.801. The high mean value and low deviation indicate that teachers' perceptions of the implementation of certification and education quality are in the high category and relatively homogeneous.

3. Correlation and Significance Test

The Product Moment correlation test results show a correlation coefficient value of $r = 0.822$ with a table $r = 0.361$ at a significance level of 5%. Because the calculated r is greater than the table r , there is a significant and very strong relationship () between teacher certification and education quality at SMA Negeri 1 Hinai. Based on Sugiyono's (2019) interpretation guidelines, a value of 0.822 falls into the "very strong" category, which means that the better the implementation of teacher certification, the higher the quality of education produced.

Furthermore, the t-test results obtained a calculated t value of 7.632, while the table t value was 2.048 with a degree of freedom (df) = 28 and a significance level of 5%. Because the calculated t value is greater than the table t value, the alternative hypothesis (H_a) is accepted, indicating that the relationship between teacher certification and education quality is statistically significant. This means that the teacher certification program has a real contribution to improving the quality of learning and educational outcomes in schools.

Discussion

The results of this study show that teacher certification has a significant effect on improving the quality of education at SMA Negeri 1 Hinai. This is in line with Mulyasa's (2013) view that certification is a policy instrument that aims to improve the professionalism and competence of teachers in carrying out their duties. Certified teachers generally demonstrate higher work discipline, good administrative skills, and greater awareness of the importance of self-development.

Interviews with the principal reinforced these findings, as certified teachers tended to be more organized in their lesson planning and reporting. However, the principal also pointed out that not all teachers were making optimal use of technology, such as projectors or digital media in the learning process.

The views of non-certified teachers show that certification is recognized as a good program, but its effectiveness depends on individual

motivation. Some teachers consider that financial orientation is often the main driver for pursuing certification, rather than improving competence. This view is in line with the theory of Hasanah & Kristiawan (in Nawawi, 2022), which emphasizes the need for a balance between incentives and professional responsibility.

Meanwhile, the results of interviews with students show that certified teachers are considered more interactive and structured in their teaching, although there are still limitations in the application of technology. This confirms that certification does have a positive impact on the quality of education, but it is highly dependent on the commitment of teachers to continue innovating.

These results are consistent with the research of Stevi Wanda Veronika (2018), Chairan M. Nur and Nura Yudrika (2019), and Sitti Sahara Syamel (2024), which shows that teacher certification contributes significantly to improving professional competence and education quality. Thus, this study reinforces previous findings and provides new empirical evidence in the context of SMA Negeri 1 Hinai.

Overall, teacher certification has been proven to have a significant and very strong relationship with the quality of education. However, certification cannot stand alone without the support of other factors such as internal motivation, continuous coaching, and adequate school facilities. Therefore, the certification program needs to be accompanied by continuous academic supervision so that teacher competence can be applied in practice.

CONCLUSION

Based on the results of data analysis, hypothesis testing, and discussion, this study concludes that there is a significant and very strong relationship between teacher certification and the quality of education at SMA Negeri 1 Hinai. The correlation test results show a value of $r = 0.822$ with a very strong level of relationship, while the t test results ($t_{hitung} = 7.632 > t_{tabel} = 2.048$) prove that teacher certification has a significant effect on improving the quality of education. These findings reinforce the view that certification is an important factor in improving teacher professionalism and the quality of education in schools.

In addition to quantitative data, the interview results support this conclusion. The principal assessed that certified teachers are more disciplined, orderly in administration, and have a high awareness of self-development. Non-certified teachers acknowledge the benefits of certification, but assess that the process still faces administrative and

motivational obstacles. Meanwhile, students rated certified teachers as more structured and interactive in their teaching, although the use of technological facilities was still not optimal. Thus, the success of certification is not only determined by the formal status of teachers, but also by internal motivation, continuous coaching, and the support of learning facilities in schools.

The results of this study imply that improving the quality of education cannot be achieved through formal certification alone, but requires synergy between school policies, teacher motivation, and support for learning facilities and technology. Certification should be seen as a starting point for strengthening teachers' professional competencies to create a learning e that is more innovative, effective, and oriented towards continuous improvement in the quality of education.

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