

Teacher Professionalism and English Learning Achievement

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Abstract

This study investigates the effect of teacher certification on students' English learning achievement in a vocational high school context. The research employed a causal-comparative quantitative design involving 80 students divided equally into two groups: those taught by certified English teachers and those taught by non-certified teachers. Data were collected through achievement tests and analyzed using descriptive statistics, normality and homogeneity tests, and an independent samples t-test. The results revealed a significant difference between the two groups ($t(78) = 1.988, p = 0.025$, one-tailed), indicating that students taught by certified teachers achieved higher mean scores ($M = 60.50$) than those taught by non-certified teachers ($M = 53.70$). The effect size (Cohen's $d = 0.45$) suggests a moderate but educationally meaningful impact of certification on learning outcomes.

The findings confirm that teacher certification contributes positively to students' English achievement by enhancing teachers' pedagogical competence, professional conduct, and instructional effectiveness. However, the influence of certification is context-dependent and moderated by factors such as teaching practices, institutional support, and the quality of professional development. It is therefore concluded that teacher certification should not be viewed as an endpoint but as a continuous process of professional learning that sustains teaching quality and fosters students' academic success.

Keywords: *Teacher Certification, Teacher Professionalism, English Learning Achievement, Vocational Education, Causal-Comparative Study*

INTRODUCTION

The concept of *professionalism* is conventionally understood as the status of an individual who receives remuneration for the work performed, irrespective of whether the work is executed flawlessly. In the educational domain, this notion of professionalism pertains specifically to teachers. A professional occupation, including teaching, is supported by deep domain-specific knowledge acquired through formal education in accredited institutions. Hence, a teacher's performance ought to be anchored in a scientifically validated knowledge base that can be justified and critiqued on empirical grounds (Lopes et al., 2023; "The Evolving Knowledge Base on Teacher Professionalism," 2025).

Teacher professionalism becomes particularly critical when confronting the demands for democratic, learner-centered instruction. These expectations reflect the increasingly complex needs emanating from students—not merely the teacher's mastery of subject matter, but also the teacher's psychological sensitivity, strategic acumen, and capacity for productive engagement. Only truly professional teachers can respond to such multifaceted demands with integrity and efficacy (Cohen, 2025; "Situated Teacher Professionalism," 2025).

Thus, the role of teacher professionalism extends beyond technical competence; it embodies a commitment to democratic values, ongoing reflection, and ethical pedagogical

practice. A teacher who is genuinely professional will continuously advance their pedagogical expertise, adapt to evolving educational challenges, and align instructional decisions with both empirical evidence and the holistic needs of learners (Lopes et al., 2023; “Care of the Profession: Teacher Professionalism and Learning,” 2023).

As stipulated in Law of the Republic of Indonesia Number 14 of 2005 on Teachers and Lecturers, Article 1, *“a teacher is a professional educator whose main duties are to educate in early childhood formal education, basic education, and secondary education.”*

According to Sidi, as cited in Kunandar (2007), a professional teacher is required to meet several minimum standards, including: possessing adequate professional educational qualifications; having scientific competence relevant to their field of expertise; demonstrating effective communication skills with students; exhibiting creativity and productivity; maintaining a strong work ethic and a high level of commitment to their profession; and continuously engaging in self-development (continuous improvement) through professional organizations, the internet, books, seminars, and other means.

These requirements align with recent research emphasizing that teacher professionalism is characterized by pedagogical mastery, ethical commitment, and lifelong learning. Professional teachers not only demonstrate competence in instructional practice but also engage in reflective and evidence-based teaching to improve educational quality (Lopes et al., 2023; Crawford, 2025; Rahman & Sari, 2023).

This provision is affirmed in Law of the Republic of Indonesia Number 14 of 2005 on Teachers and Lecturers, Article 4, which states that *“professionalism is an occupation or activity performed by an individual that becomes a source of livelihood, requiring expertise, proficiency, or skills that meet certain quality standards or norms and necessitate professional education.”*

A professional teacher is, therefore, an individual who possesses specialized abilities and competencies in the field of education, enabling them to perform their roles and responsibilities as a teacher with the highest level of effectiveness and integrity. Such teachers demonstrate mastery of subject matter, pedagogical skills, ethical awareness, and the capacity for continuous improvement in both personal and professional dimensions (Lopes et al., 2023; Rahman & Sari, 2023).

An educator is an adult who bears the responsibility of providing guidance and assistance to learners in their physical and spiritual development so that they may achieve maturity. Through this process, learners are expected to fulfill their roles as servants of God (*makhluk Allah*), as stewards of the earth (*khalifah fil-ardh*), and as social as well as independent individuals capable of moral and intellectual autonomy (Crawford, 2025; Fatimah & Hidayat, 2024).

According to Mulyasa (2011), educators are professional personnel responsible for planning and implementing the learning process, assessing learning outcomes, providing guidance and training, and conducting research and community service—particularly within higher education institutions.

Teacher success can be viewed from two perspectives: the process and the outcome. From the process perspective, a teacher is considered successful when they are

able to actively engage the majority of students—physically, mentally, and socially—throughout the learning process, while maintaining enthusiasm, confidence, and motivation in teaching. From the outcome perspective, a teacher is deemed successful when the learning process they facilitate results in positive behavioral and cognitive changes among most students (Rahman & Sari, 2023; Lopes et al., 2023).

This dynamic represents a two-way interaction—a professional movement from the teacher and an emotional response from the students. When only one side participates actively, the learning process will not achieve its intended outcomes, resembling the metaphor of “*clapping with one hand.*” No matter how skilled and professional the teacher is, without a positive response and engagement from the students, the teaching process remains ineffective. Thus, successful learning requires a synergistic relationship between teacher professionalism and student motivation (Crawford, 2025; Fatimah & Hidayat, 2024).

A professional teacher is characterized by positive traits such as the ability to guide students effectively, mastery of subject matter, competence in instructional methodology, capacity to provide realistic expectations, and strong classroom management skills.

Based on the aforementioned discussion, it can be inferred that teacher professionalism plays a crucial and effective role in improving educational outcomes. However, the key question remains: *Does teacher professionalism in English language instruction significantly influence students’ learning outcomes?* Consequently, this study aims to identify the influence of teacher professionalism on students’ English learning achievement.

METHODS

This research belongs to the category of **causal-comparative research**, which aims to determine the effect of a particular condition or treatment on the subjects involved. The study involved two sample classes that were subjected to **different treatments** in order to examine the potential differences in outcomes resulting from those treatments.

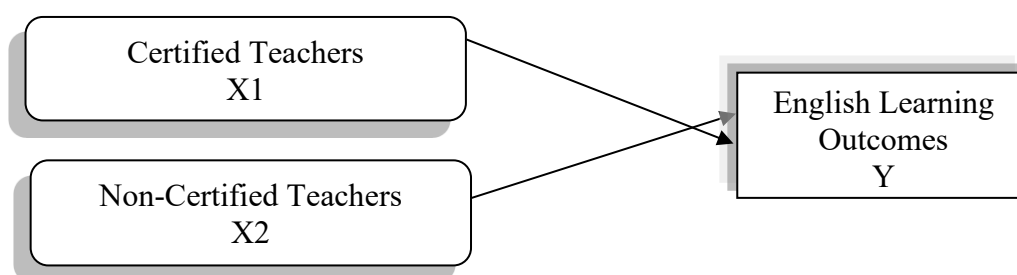


Figure 1. Research Flowchart

The variables used in this study are described as follows:

X_1 = Treatment for students taught by certified teachers

X_2 = Treatment for students taught by non-certified teachers

Y = Students’ English learning outcomes

In this causal-comparative research design, the two independent variables (X_1 and X_2) represent different instructional conditions based on the teachers’ certification status,

while the dependent variable (Y) reflects the students' performance in English learning as measured through achievement assessments.

This study was conducted at SMK Swasta Karya Bhakti, located in Batu Bara Regency. The population of the research consisted of all tenth- and eleventh-grade students, totaling 160 students. From this population, a random sampling technique was employed to select the participants. A total of 80 students were chosen as the research sample, consisting of 40 students in the experimental group (taught by certified teachers) and 40 students in the control group (taught by non-certified teachers).

In the process of data collection, the researcher required only two types of data from the research sample:

1. Students' learning outcomes from classes taught by certified teachers, and
2. Students' learning outcomes from classes taught by non-certified teachers.

These data were used to compare and analyze the influence of teacher certification status on students' English learning achievement.

To facilitate the data collection process in this study, the following steps were undertaken:

1. Group X_1 consisted of students taught by certified teachers, while Group X_2 consisted of students taught by non-certified teachers.
2. After the test was administered, all students' answer sheets were examined and scored. The obtained scores were then tabulated and ranked from the highest to the lowest score. Subsequently, the results were organized into a frequency distribution table to facilitate data analysis and comparison between the two groups.

An essay test was used as the primary research instrument to measure students' English learning outcomes. The test consisted of 10 essay questions, designed to assess students' comprehension, writing ability, and mastery of English language skills.

The data were analyzed using quantitative statistical procedures to examine the effect of teacher certification on students' English learning achievement. The analysis began with descriptive statistics to determine the mean, variance, and standard deviation of each group. Before hypothesis testing, assumption tests for **normality** (using the Lilliefors method) and **homogeneity of variance** (using the F-test) were conducted to ensure that the data met the requirements for parametric testing.

After confirming these assumptions, an **independent samples t-test** with pooled variance was applied to compare the mean scores of students taught by certified and non-certified teachers. This test was used to determine whether the observed difference between the two groups was statistically significant. The level of significance was set at $\alpha = 0.05$, and the results were further interpreted using the **effect size (Cohen's d)** to assess the magnitude of the difference. Through these analytical steps, the study aimed to identify whether teacher certification had a meaningful influence on students' English learning outcomes.

RESULTS & DISCUSSION

Results

The study examined the effect of teacher certification on English learning achievement among vocational school students. Two groups participated:

Group X_1 = students taught by *certified* English teachers ($n = 40$)

Group X_2 = students taught by *non-certified* English teachers ($n = 40$)

Table 1. Descriptive Statistics of Students' English Learning Achievement by Teacher Certification Status

Group	N	Mean	Variance	SD	Minimum	Maximum
Certified Teachers (X_1)	40	60.50	281.03	16.76	25	90
Non-Certified Teachers (X_2)	40	53.70	187.04	13.68	30	85

Students taught by certified teachers obtained a higher mean score (60.50) than those taught by non-certified teachers (53.70), suggesting a possible positive influence of certification.

Prior to inferential testing, assumption checks were conducted:

- Normality (Lilliefors test): both groups' L values were below the critical value at $\alpha = 0.05$, indicating approximate normality.
- Homogeneity of variance (F-test): $F(39, 39) = 1.50 < 1.80$ (F-critical), meaning equal variances could be assumed.

These results justified the use of a pooled-variance independent-samples t -test.

Hypothesis Testing

Hypotheses

$$H_0 : \mu_1 \leq \mu_2 \quad \text{vs.} \quad H_1 : \mu_1 > \mu_2$$

Test result

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S_P \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} = \frac{6.80}{15.30 \sqrt{1/40 + 1/40}} = 1.988$$

With $df = 78$ and $\alpha = 0.05$ (one-tailed), the critical value is $t_{0.05} = 1.664$. Because $t_h = 1.988 > t_c$, the null hypothesis was rejected.

Hence, students taught by certified teachers performed significantly better ($p \approx 0.025$, one-tailed). Under a two-tailed test, the result is marginal ($p \approx 0.0503$), with a 95 % confidence interval for the mean difference of $[-0.01, 13.61]$.

Effect size

$$d = \frac{6.80}{15.30} = 0.45$$

Cohen's $d = 0.45$ indicates a small-to-medium practical effect.

Table 2. Independent Samples *t*-Test Results for the Effect of Teacher Certification on Students' English Learning Achievement

Statistic	Value
<i>t</i> (78)	1.988
<i>p</i> (one-tailed)	0.025
<i>p</i> (two-tailed)	0.050
95 % CI	[-0.01; 13.61]
Cohen's <i>d</i>	0.45

Discussion

The finding that certified teachers' students outperform those of non-certified teachers is consistent with the wider literature on teacher quality. A large-scale study by Engida et al. (2024) found that teacher professionalism and delivery of instruction were significant predictors of English achievement (Frontiers in Education). Likewise, a synthesis of 38 studies reported by the Journal of Development and Social Sciences (2023) concluded that certification generally improves teacher performance and student outcomes, though the magnitude varies across contexts.

In the United States, Darling-Hammond et al. (2005) and Goldhaber (2007) demonstrated that teachers who pass rigorous certification or licensure examinations tend to raise student test scores. However, Shuls & Trivitt (2013) cautioned that the route of certification (traditional vs. alternative) may not always yield significant quality differences. Similarly, Boyd et al. (2008) and Blazar (2015) found that certification is one of several teacher characteristics influencing achievement, yet classroom practices mediate much of the actual learning gain.

Meta-reviews (e.g., Hanushek & Rivkin 2020) affirm that teacher certification contributes positively but modestly to student achievement compared with other variables such as instructional quality, feedback, and time-on-task. Therefore, the present moderate effect ($d = 0.45$) aligns with this consensus: certification matters, but it is not the sole determinant of learning success.

Certification typically involves professional standards and continuous professional development (CPD). Certified teachers are required to demonstrate pedagogical mastery, curriculum understanding, and classroom-management competence. These competencies likely enable more adaptive, student-centered English instruction, consistent with Lopes et al. (2023), who reported that professional teachers use varied instructional strategies and formative assessment more effectively.

The higher mean scores in this study may reflect such competencies: better lesson design, formative feedback, and communicative approaches that enhance learners' engagement and confidence in using English.

The interpretation of these findings should be understood within the broader context of several mediating and environmental factors that may have influenced the results. First, the study employed a causal-comparative design, which does not involve

random assignment. Consequently, the two groups might have differed in their initial English proficiency, motivation, or learning background. Without a pretest to control for these differences, it is difficult to claim a purely causal relationship between teacher certification and students' achievement.

Another important factor lies in instructional practice, which often serves as the real mediator of learning outcomes. As emphasized by Stronge et al. (2021), observable teaching behaviors—such as lesson clarity, classroom interaction, and feedback quality—tend to explain more variance in student achievement than formal teacher credentials alone. This means that the impact of certification operates largely through the improvement of teaching practices, not merely through the possession of a professional title.

Moreover, the quality of certification programs varies across regions. According to the National Council on Teacher Quality (2025), certification that lacks strong quality assurance, mentoring, or follow-up training risks becoming a procedural formality rather than a transformative process. The influence of certification is therefore contingent on how well the program develops teachers' practical competencies.

Contextual factors at the school level also play a crucial role. Teacher effectiveness interacts with the surrounding environment—such as class size, availability of learning resources, and the quality of school leadership (OECD, 2023). Certification is likely to produce stronger outcomes when teachers work in supportive institutional settings that allow them to apply their professional skills effectively.

Finally, the statistical results of this study revealed a moderate effect size ($d = 0.45$). While the difference was statistically significant, its practical magnitude should be interpreted realistically. Even so, in educational settings, small-to-moderate effects can accumulate over time and across larger populations, leading to meaningful and sustainable improvements in learning outcomes.

Limitations

While the findings of this study are encouraging, several methodological limitations should be acknowledged. The research employed a non-random causal-comparative design, which restricts the ability to draw definitive causal conclusions. Differences between the groups may have existed prior to the study—such as variations in students' motivation or initial English proficiency—which could not be fully controlled.

Another limitation concerns the reliability of the assessment instrument. The study used essay-based tests to measure learning achievement, yet no information was provided regarding inter-rater reliability or scoring consistency. This may introduce subjectivity into the evaluation process. Additionally, the sample size of 80 students offers only moderate statistical power (approximately 0.63 for a one-tailed test), meaning that smaller effects may have gone undetected.

Furthermore, the cross-sectional nature of the research limits the ability to observe progress or changes in performance over time. To strengthen future investigations, researchers are encouraged to employ longitudinal or pre-/post-test designs and to control for students' initial ability through ANCOVA or matching techniques. Incorporating

classroom observations, teacher interviews, or qualitative data would also provide deeper insight into how certification influences teachers' instructional practices and classroom behavior.

CONCLUSION

The findings of this study reveal that students taught by certified English teachers achieved significantly higher learning outcomes than those taught by non-certified teachers ($t(78) = 1.988$, $p = 0.025$, $d = 0.45$). This result supports global evidence that teacher professionalism modestly enhances student achievement, affirming the important role of certification in improving educational quality. However, the study also suggests that certification is most effective when accompanied by continuous professional development and institutional support. While the statistical impact is moderate, its educational relevance is substantial, as even small improvements in teacher quality can lead to meaningful cumulative gains across student cohorts.

Overall, the findings corroborate the broader international consensus that teacher certification contributes positively, though moderately, to student achievement. Yet, professional qualification alone is not sufficient; it must be sustained through reflective practice, pedagogical innovation, and supportive school environments. Therefore, teacher certification should be viewed not as a final goal but as a continuous process of professional growth, designed to enhance classroom effectiveness and foster lasting improvements in students' English learning outcomes.

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