



The Influence of Culture and Teacher Competence on Productivity in Vocational High Schools in Pidie Regency

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ABSTRACT

School culture and teacher competence play a crucial role in enhancing school productivity, particularly in Vocational High Schools (SMK) in Pidie District. This productivity is reflected in students' academic achievements and their readiness to enter the workforce. The study population consists of 436 teachers and school principals from 14 SMKs spread across various sub-districts. The sample was selected using the Proportionate Random Sampling technique, resulting in three representative schools: SMKN 1 Sigli, SMKN 2 Sigli, and SMKN 3 Sigli, with a total of 225 respondents, including teachers and school principals. Data analysis was conducted using simple linear regression and multiple regression tests to measure the relationship between school culture and teacher competence with school productivity. The regression analysis results indicate that school culture significantly influences school productivity, contributing 36.6% ($R^2 = 0.366$), while teacher competence contributes 16.9% ($R^2 = 0.169$). Simultaneously, these two factors account for 53.5% of school productivity, while 46.5% is influenced by other factors. These findings emphasize that a positive school culture and high teacher competence enhance academic achievement, learning effectiveness, and students' readiness for the workforce. Therefore, strengthening school culture, improving teacher competence, and fostering partnerships with industries are key strategies for enhancing the quality of education in vocational schools.

INTRODUCTION

Education plays a crucial role in preparing young generations to face modern challenges. Quality education must include comprehensive material delivery, interactive methods, and skill development. Abdurrahman & Andri (2020) define education as a conscious effort to develop students' potential in various aspects of life.

In education, two important terms are pedagogy (education) and pedagogics (the science of education). Education guides students toward independence and responsibility, covering physical, emotional, intellectual, social, and spiritual development.

The national education system aims to cultivate intelligent, virtuous, and innovative individuals. However, the quality of education in Indonesia still faces challenges, despite outstanding individual academic achievements. Schools, as complex organizations, require high coordination to achieve their primary goal: producing high-quality and creative graduates.

School productivity is measured by the quality and quantity of its output. Adiputra et al. (2022) state that academic productivity includes teaching, research, and social and scientific activities. Both internal and external factors influence school productivity, including management systems and the school environment.

According to Mulyana (2019), school culture consists of values developed by individuals within the school organization, which can positively or negatively impact the learning environment. A positive school culture promotes teacher professionalism and student character development, whereas a negative culture triggers conflicts. Herlina (2020) identifies various types of school conflicts, such as leadership, communication, values, roles, academic, and disciplinary conflicts.

Resolving conflicts in schools requires open communication and an inclusive school culture to create a conducive learning environment. Teacher competence also plays a crucial role in improving school productivity. Suhartina (2022) states that competence includes knowledge, skills, and professional attitudes that support effective learning.

This study aims to analyze the influence of school culture and teacher competence on the productivity of Vocational High Schools (SMK) in Pidie Regency. SMKs are selected because they have unique characteristics that emphasize practical skills and job readiness. Some of the questions that arise from this research include:

1. Does school culture significantly influence school productivity in SMKs in Pidie Regency?
2. Does teacher competence significantly influence school productivity in SMKs in Pidie Regency?
3. Do school culture and teacher competence together influence school productivity in SMKs in Pidie Regency?

LITERATURE REVIEW

School culture refers to the collection of values, norms, beliefs, traditions, and behaviors embraced and practiced by all members of the school community, including students, teachers, staff, and parents. According to Syamsuddin (2020), this culture creates a unique learning environment and influences how individuals interact, learn, and grow within the school. A strong and positive school culture can enhance learning motivation, build character, and support students' academic and social success. Core values such as integrity, responsibility, hard work, and respect form the foundation of this culture Sudarso (2024), while norms and traditions, like daily interactions, dress codes, and annual events, further shape the school's identity and sense of community.

Teachers and staff play a central role in shaping and maintaining school culture. They serve as role models, demonstrating the expected values and norms through their interactions with students and colleagues. Strong leadership from school principals and management is also crucial in fostering a positive and productive environment. A supportive and inclusive school culture significantly impacts student development, boosting confidence, motivation, and engagement in learning. As noted by Efendi & Sholeh (2023), students who feel valued and supported tend to exhibit positive attitudes toward learning and achieve better academic outcomes. Additionally, a healthy school culture helps students develop essential social, emotional, and moral skills that are vital for life beyond school.

Competence refers to an individual's ability to perform tasks based on skills and work attitudes that align with established standards. According to Arna (2022), competence encompasses knowledge and skills in a particular field that can enhance the quality of an organization or company. Furthermore, competence reflects an individual's qualifications, including knowledge, skills, and values manifested in consistent thinking and behavior. Febriana (2019) explains that competence consists of five dimensions: motive, traits, self-concept, knowledge, and skills. In the context of teachers, competence reflects professionalism and high capability in carrying out their duties, which includes pedagogical, personal, social, and professional competencies Astuti et al., (2022).

Teachers play a crucial role in educating, teaching, and guiding students toward maturity, which is the ultimate goal of education Uno (2020). Additionally, teachers serve as inspirators who help students develop their potential, motivation, and ability to actualize themselves Sopian (2019). According to Law No. 14 of 2005 concerning Teachers and Lecturers, teacher competence includes four aspects: pedagogical, personal, social, and professional. These four competencies must be mastered well, as teachers interact with students who have diverse characteristics and abilities Suraji (2018). Teacher competence not only involves mastery of subject matter but also understanding students and personal and professional development (Febriana, 2019).

School productivity refers to the effectiveness and efficiency of educational institutions in achieving educational goals, such as producing graduates who meet established competency standards. According to Yamin (2021), school productivity can be measured through student learning outcomes, graduate quality, and the school's ability to manage resources optimally. Sutrisno (2020) adds that a school is considered productive if it can achieve maximum results by utilizing available resources efficiently. Factors such as school leadership, teacher quality, physical resources, and an effective curriculum also influence school productivity. For example, strong and visionary leadership can create a conducive learning environment, while competent teachers and adequate facilities support an optimal learning process (Mulyasa, 2019; Gunawan, 2020).

Efforts to improve school productivity include enhancing teacher quality through training and professional development, strengthening school leadership, and optimizing resource management (Rohiat, 2019; Hasibuan, 2020). Additionally, innovation in curriculum and teaching methods, such as the integration of digital technology, is essential to adapt to the demands of the times Yusuf (2020). Dimensions of school productivity encompass student academic achievement, efficient use of resources, student engagement, development of non-academic skills, teaching quality, and parental and community involvement Santoso & Suhariadi (2020). By addressing these aspects, schools can enhance their productivity and produce graduates who are ready to compete in the global era.

School productivity is a key indicator of an educational institution's success in achieving its goals. Two critical factors influencing school productivity are school culture and teacher competence. School culture refers to the values, norms, beliefs, and traditions within a school that shape the behavior of teachers, students, and the entire school community. A strong school culture fosters a supportive and harmonious learning environment, enhancing motivation and performance among all members (Sergiovanni, 2019). According to Deal & Peterson (2020), a positive school culture encourages collaboration and active participation, which strengthens a sense of ownership and shared responsibility for the school's success. Research by Schein (2019) highlights that a robust school culture boosts teacher and student engagement, promotes innovation in teaching, and ultimately enhances school productivity.

Teacher competence, encompassing pedagogical, personal, and professional skills, plays a vital role in determining the quality of education provided to students. Competent teachers create effective learning environments, deliver meaningful instruction, and manage classrooms efficiently (Uno, 2020). Beyond teaching skills, teacher competence includes understanding student needs, adapting to classroom dynamics, and maintaining effective communication. Highly competent teachers significantly improve student learning outcomes, a primary indicator of school productivity (Sudjana, 2022). Darling-Hammond (2019) emphasizes that teachers who continuously develop their professional skills through

training contribute significantly to enhancing school productivity by delivering high-quality education.

The relationship between school culture and teacher competence is closely intertwined in determining school productivity. A positive school culture that encourages innovation, collaboration, and participation strengthens teacher motivation and performance (Robbins & Judge, 2019). In such an environment, competent teachers are better equipped to maximize their contributions. Research by Hoy & Miskel (2019) shows that a strong school culture fosters synergy among school elements, including teachers, motivating them to enhance their competencies through self-learning and formal training. Yamin (2021) further notes that schools promoting collaborative cultures and teacher development significantly boost productivity. Ultimately, a strong school culture and high teacher competence create an effective, innovative, and results-oriented learning environment, driving overall school productivity.

METHODOLOGY

This study aims to analyze the influence of school culture and teacher competence on school productivity in vocational high schools (*Sekolah Menengah Kejuruan* or SMK) in Pidie Regency. To achieve this objective, a **quantitative research approach** was employed, involving structured data collection and statistical analysis to ensure objective and measurable results. Data were gathered from selected schools to examine.

This study employs a quantitative research approach to analyze the influence of school culture and teacher competence on school productivity. Data collection was conducted using surveys distributed to teachers and school principals in several Vocational High Schools (*Sekolah Menengah Kejuruan* or SMK) in Pidie Regency. The sample consisted of three SMKs: SMKN 1 Sigli, SMKN 2 Sigli, and SMKN 3 Sigli, selected through proportionate random sampling, (Sugiono, 2020).

Observations were conducted to assess the implementation of school culture, teacher competencies, and school productivity. Additionally, documentation analysis was performed using school records and reports. The research variables include:

1. Independent Variable 1 (X1): School Culture, which covers collaboration, leadership, innovation, support systems, and discipline.
2. Independent Variable 2 (X2): Teacher Competence, which includes pedagogical, professional, and personal competencies.
3. Dependent Variable (Y): School Productivity, measured through student achievements, teacher performance, and institutional effectiveness.

The collected data were analyzed using descriptive statistics and regression analysis with SPSS version 25. Validity and Reliability Tests:

1. The **validity test** was conducted using Pearson's *Product Moment Correlation*, where items with r-values above 0.306 were considered valid.
2. The **reliability test** was measured using **Cronbach's Alpha**, with values above 0.60 considered reliable.

Simple linear regression was used to determine the influence of school culture and teacher competence on school productivity. Hypothesis testing used the t-test and F-test with a significance level of 5% ($p < 0.05$).

Tabel 1. Findings (Summary of Data Analysis)

Variable	Cronbach's Alpha	Interpre tation
School Culture (X1)	0.709	Reliable
Teacher Competence (X2)	0.746	Reliable
School Productivity (Y)	0.717	Reliable

The regression analysis results indicate that both school culture and teacher competence have a **significant positive influence** on school productivity ($p < 0.05$). Schools with a strong culture and highly competent teachers tend to achieve higher levels of student performance and institutional efficiency.

RESEARCH RESULT

This study analyzed the influence of school culture and teacher competence on school productivity at SMKN 1, SMKN 2, and SMKN 3 in Pidie Regency. A total of 225 teachers participated as respondents, and the data were collected through questionnaires using a Likert scale. Statistical analysis was performed using SPSS version 25, applying regression and correlation tests.

1. Influence of School Culture on School Productivity

Table 2. Influence of School Culture on School Productivity

Variable	R	R ²	F-test	Sig.
School Culture → School Productivity	0.683	0.366	13.961	0.000

2. Influence of Teacher Competence on School Productivity

Table 3. Influence of Teacher Competence on School Productivity

Variable	R	R ²	F-test	Sig.
Teacher Compe tence → School Productivity	0.262	0.169	4.050	0.000

3. Combined Influence of School Culture and Teacher Competence on School Productivity

Table 3. Combined Influence of School Culture and Teacher Competence on School Productivity

Variables	R	R ²	F-test	Sig.
School Culture & Teacher Competence → School Productivity	0.711	0.535	11.373	0.001

DISCUSSION

Influence of School Culture on School Productivity

School culture significantly influences school productivity, with a correlation coefficient (R) of 0.683 and a determination coefficient (R²) of 36.6%. This result indicates that 36.6% of school productivity is influenced by school culture, while the remaining 63.4% is affected by other factors. The significance test yielded $p < 0.05$, confirming that school culture positively impacts productivity.

A positive school culture, such as strong discipline, collaboration, and innovation, fosters a conducive learning environment. This finding aligns with research by Suryadi (2021), which highlights the role of school culture in enhancing student motivation and teacher performance.

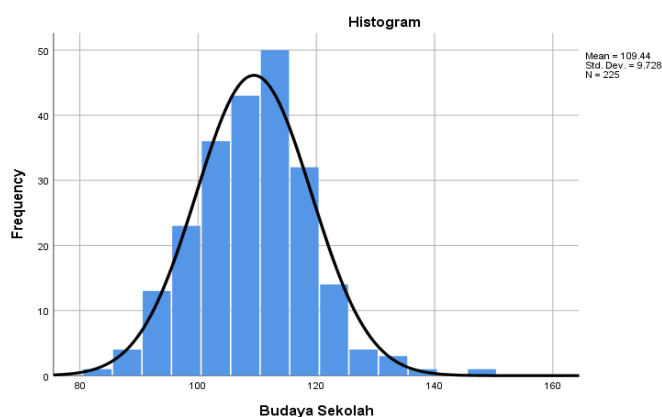


Figure 1. School Culture Histogram

Influence of Teacher Competence on School Productivity

Teacher competence also plays a vital role in school productivity, with an R-value of 0.262 and an R² of 16.9%, indicating that 16.9% of school productivity is influenced by teacher competence. The F-test result was 4.050, with $p < 0.05$, signifying a statistically significant effect.

Competent teachers enhance student learning outcomes, effective classroom management, and curriculum implementation. This finding supports Prasetyo (2020), who emphasized the importance of pedagogical and professional competencies in improving teaching effectiveness.

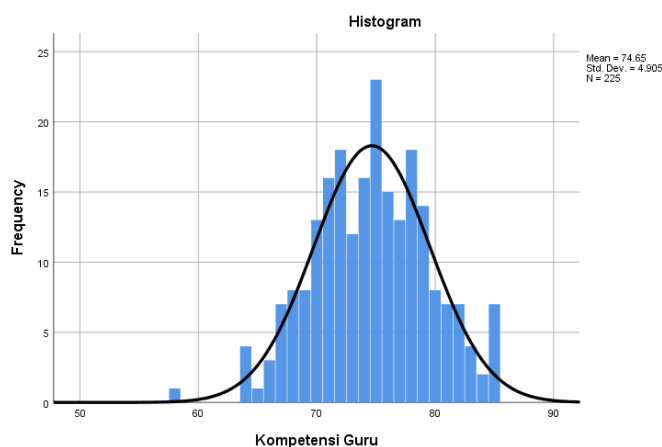


Figure 2. Teacher Competence Histogram

Combined Influence of School Culture and Teacher Competence on School Productivity

Regression analysis revealed that school culture and teacher competence collectively contribute 53.5% to school productivity ($R = 0.711$, $R^2 = 0.535$). The significance level of $p < 0.05$ confirms that these two factors jointly impact school productivity.

This suggests that a combination of a strong school culture and highly competent teachers leads to better student achievements, teacher performance, and institutional effectiveness.

CONCLUSIONS AND RECOMMENDATIONS

Based on the above discussion, it can be concluded

1. School culture significantly affects school productivity, contributing 36.6% to school effectiveness. Schools with strong leadership, innovation, and collaboration tend to have higher productivity levels.
2. Teacher competence also influences school productivity, contributing 16.9% to its improvement. Well-trained teachers enhance student learning and classroom engagement.
3. The combined effect of school culture and teacher competence accounts for 53.5% of school productivity, highlighting the importance of both factors in achieving optimal educational outcomes.

Based on the conclusions, it can be recondensed, among others

1. **Strengthen School Culture through Leadership and Collaboration**
Schools should focus on fostering a positive culture by enhancing leadership roles and promoting collaboration among all school community members. Initiatives such as leadership training, collaborative workshops, and activities involving teachers, students, and parents can create an innovative and supportive environment. A strong school culture boosts motivation and performance, positively impacting productivity.
2. **Enhance Teacher Competence through Training and Professional Development**
Schools should provide continuous training and professional development programs to improve teacher competence. These programs should cover pedagogical skills, technology integration, and effective classroom management. By enhancing teacher competence, the quality of teaching improves, leading to better student outcomes and overall school productivity.
3. **Integrate School Culture and Teacher Competence into Strategic Planning**
Schools should integrate the strengthening of school culture and teacher competence into long-term strategic planning. This includes setting clear goals, monitoring progress regularly, and evaluating the impact of implemented programs. By optimizing both factors simultaneously, schools can achieve higher productivity and better educational outcomes.

ADVANCED RESEARCH

Further research that can be conducted is a longitudinal study to examine the long-term impact of school culture on productivity. This study can identify how changes in school culture, such as increased collaboration, innovation, and participation, affect student academic performance and school operational efficiency. The findings can provide in-depth insights into sustainable best practices and serve as a foundation for developing policies and strategies to enhance school productivity.

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