

VISIONARY LEADERSHIP: THE KEY TO QUALITY EDUCATION

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Abstract

Aim: The principal is one of the factors that influence the level of student learning outcomes which lead to the achievement of the National Education Standards (NES). This study aims to determine the effect of the principal's leadership style (distributive, transformational, instructional, entrepreneurial, and quality) on the achievement of the National Education Standards. **Methods and Materials:** This study uses a quantitative approach, with a total sample of 180 respondents (proportional random sampling). The data obtained will be described using descriptive analysis and then a prerequisite test is conducted. If passed, the regression analysis will be continued using the SPSS application. **Results:** The results of the T-test showed that the quality leadership variables ($0.452 > 0.05$) and distributive ($0.448 > 0.05$) had no partial effect on NES while instructional leadership ($0.045 < 0.05$), transformational ($0.000 < 0.05$) and entrepreneurship ($0.041 < 0.05$) had a partial effect on SNP. **Conclusion:** Based on the results of the F test ($0.000 < 0.05$) it was found that quality leadership, instructional, transformational, distributive, and entrepreneurship together influence the NES.

Keywords: Distributive, Entrepreneurship, Instructional, Quality, Transformational.

INTRODUCTION

Education is a deliberate and structured process aimed at cultivating students' potential, enhancing their skills, and shaping their attributes (Setiawan & Purnomo, 2019). In Indonesia, vocational high school is a formal educational stage before university enrolment (Yoga et al., 2024). Then, the principal plays an important role in school growth, including vocational high school. Therefore, he should have the willingness and perseverance to inspire, request, determination, transfer, supervise, and through all school stakeholders for the sake of school growth (Blome & James, 1985; Murakami et al., 2012; Setiawan & Hudha, 2021; Jäppinen, Leclerc, & Tubin, 2016). The nature of principalship has shifted away from daily management and administrative responsibilities and toward boosting teaching and learning in schools. (Christie, 2010; Bush and Glover, 2014; Maringe et al., 2015; Moletsane et al., 2015).

According to Leithwood et al (2006), leadership catalyzes positive results, including child learning. Furthermore, this research distinguishes between the total leadership (27 percent) and the impact of head teacher leadership (typically 5–7%). The current interest in distributed leadership and the concept of leadership density is bolstered by this discovery. This sort of leadership position has a significant impact on learning outcomes (Robinson, 2007). Eurydice (2015) uses the terms school head and school leadership interchangeably, and she emphasizes that school leadership might be distributed as a group, where one or even more assistant school principals, an admin

assistant, or an accountant are included (Eurydice, 2015). The phrase school leadership has evolved over the last twenty to thirty years to reflect changes in the function of leaders. Many educational systems are shifting from a more administrative and bureaucratic function to one that is more involved in collaborating with teachers and other workers to improve school performance (Adams & Gaetane, 2011; Glatter, 2014; Roach, Smith, & Boutin, 2010; Spillane & Kenney, 2012).

There has not been a single documented incidence of a school effectively turning around in its pupil performance trajectory without skilled leadership, according to Leithwood et al. (2006), which provides solid evidence for the vital importance of heads, senior, and medium leadership in all types of schools. Leadership is a persuading process that leads to the achievement of objectives. Successful leaders build a vision for their organizations depending on personal and professional values. They communicate their vision at all times and urge their staff members to do the same. The ideology, structures, and activities of the school are all geared toward accomplishing this common purpose (Dery & Reingold, 2021).

Gurr and Drysdale (2018) The model outlines four main contextual elements that influence schools (economic, sociocultural, political, and technological) and suggests that the school is part of a larger educational system that is influenced by central and regional system efforts and system leadership. These are referred to as the institutional setting by Hallinger. The school perspective exists inside the educational system context, and the school performance and development context is at the center of the school viewpoint, with leadership as the central element. Leadership has an impact on school culture and environment, as well as teaching and learning, all of which have an impact on student results. The model identifies four direct contextual elements that influence school growth and progress: (a) the structure and school type, (b) the personal attributes of the school leader, (c) the community groups, and (d) outside agencies and networks.

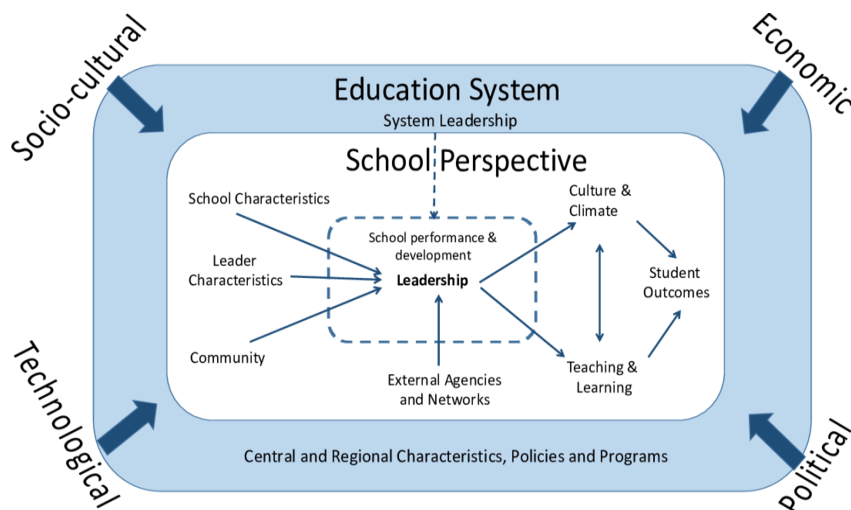


Figure 1: School Leadership in Context (Hallinger, 2018, p. 17)

Based on Figure 1, there is a visualization of school leadership in context. School leadership has an impact on certain practices in the classroom. Seven compelling arguments regarding school leadership approaches that improve student achievement (Leithwood et al., 2006). The field has progressed to the point where it is ready to investigate the nature, methods, and outcomes of successful school leadership

(Leithwood et al., 2019). Robinson et al (2009) looked at how different forms of leader behaviors effect school improvement in a meta-analysis of research. They selected a set of positions that have the most influence on a school's performance (Villares et al., 2023). Branch et al (2013) found that a good school leader can boost student achievement by 2 to 7 months over a school year. Research has found that having a principal who is one standard deviation more productive than the average principal can result in an additional seven months of studying in a single Texas school year. While teachers play a crucial role in shaping the future of their students, principals have an impact on and influence everyone in the school. Thus, investing in school leaders can have a multiplier effect for each school's teachers. Effective school leaders can help reduce teacher turnover and boost motivation, among other benefits (Cells et al., 2023).

The influence of school leaders on student achievement was investigated by Di Liberto, Schivardi, and Sulis (2015). They emphasize the link between autonomy, responsibility, and leadership. Improved school results were associated to distributive and instructional leadership strategies, as well as educator trust in school leaders (Leithwood & Louis, 2011).

LITERATURE REVIEW

Distributed Leadership (X1)

Harris (2008) also looked at distributed leadership and discovered a link between dispersed leadership and organizational change. Distributed leadership was related with parallel structures and a larger conceptualization of joint leadership applies in schools, expanding beyond the one individual. The issue of distributed leadership has attracted an increasing amount of academic and practitioner interest (Gronn, 2010). It is one of the most well-known concepts in educational leadership to emerge in the preceding decade (Lyu et al., 2023).

Uncoupling dispersed leadership from positional authority is a good place to start when learning about it. Rather than finding talent through a formal position or role, distributed leadership depends on activating talent wherever it resides within the organization (Harris, 2004). Irvine (2023) acknowledges a normative movement from heroism to distribution but warns against concluding that distributed leadership means the principal's authority is diminished.

Distributed leadership does not necessarily imply that school employees are acting differently. Back when courageous, personal leadership was the focus of attention (Lumby, 2009). Meanwhile, distributed leadership emerged as an emergent characteristic of a team or network of people who pooled their talents (Yougs, 2020)

H1: Distributed leadership has an effect on National Education Standard.

Transformational leadership (X2)

This form of leadership argues that the fundamental focus of leadership should be on the commitment and capabilities of organizational members (Rossenberg et al., 2022). Extra effort and productivity are expected to arise from advanced stages of individual commitment to organizational objectives and increased capabilities for achieving those aims (Leithwood et al., 1999; Inam et al., 2021). When taken as a whole, transformational leadership methods showed strong direct and indirect effects on school rearrangement progress and teacher perceptions of student consequences

(Almaz et al., 2020). The transformational model places great importance on values, but there is a debate surrounding whose values are the most significant. Critics argue that the values that matter most are those of the management or the school principal, who may be working on behalf of the government. As a result, teachers' personal and established educational values are likely to be replaced by externally imposed ones (Bush and Glover, 2014).

H2: Transformational leadership has an effect on National Education Standard.

Instructional leadership (X3)

The term instructional leadership originated in North America, but it has now been superseded in England and elsewhere by the idea of learning-centered leadership. The latter concept, according to Rhodes and Brundrett (2010), seems to be more holistic and has a greater influence on school and student outcomes. They examine the shift from instructional leadership, which is concerned with quality of teaching, to teach leadership, which involves a broader range of leadership actions aimed at promoting learning and improving learning goals.

Instructional leadership has already been revitalized in the twenty-first century as learning leadership. Heck and Hallinger (2010). Instructional leadership, often based on learning leadership, is concerned with the direction and objective of a leader's influence on student learning as mediated by instructors (Liu et al., 2022). The influence process itself is given far less attention. Most other leadership theories, on the other hand, place a heavy emphasis on leadership procedures. The debate that follows focuses on leadership styles that focus on "how" to lead rather than "why" to lead.

The term "instructional leadership" refers to a series of actions that aim to influence classroom instruction. According to Andrews and Soder (1987), an effective instructional leader is someone who provides resources, instructional support, and acts as a communicator and visible presence in the school. Instructional leadership plays a vital role in shaping the technical core of instruction, curriculum, and assessment, providing direction and impacting the day-to-day activities of both teachers and students in the school.

Students' involvement in the teaching and learning process is strongly influenced by educators with instructional leadership (T & L). Thus, in the framework of the prewriting process, the instructional leader's T&L process will result in an analytical and creative classroom. Instructional leadership is described as a type of leadership that focuses on functions that are directly relevant to learning and teaching (Murphy, 1988). In a larger sense, instructional leadership encompasses all other tasks that support student learning, such as management practices (Donmoyer & Wagstaff, 1990; Munna, 2021). Instructional leadership has far bigger effects than other types of leadership (Bush & Glover, 2014).

H3: Instructional leadership has an effect on National Education Standard.

Entrepreneur leadership (X4)

Entrepreneurial leadership is a new dimension for today's leaders. The most frequent and widely accepted definition of entrepreneurial leadership is a method of influencing that obtains/enlists the help or support of others toward the attainment of a specific goal (Alvesson, M., Sveningsson, S., 2012). Entrepreneurial leadership is defined as

"organizing a group toward the achievement of a specific purpose using proactive entrepreneurship by maximizing threat, inventing to seize opportunities, accepting responsibility, and facilitating change within such a changing situation for the benefit of the company (Roebuck et al., 2004)

Other types of leadership styles, such as those studied by Kets de Vries, are considered separate from the entrepreneurial leader (2007). Liu et al (2023) and McGrath & MacMillan (2000) stated that an entrepreneurial attitude is required to better manage the high-velocity contexts of competition and change. Gupta et al (2004) agree, adding that focusing on the concept of entrepreneurial leadership is a crucial step on the right path. Entrepreneurial leadership is defined as leadership that produces imaginative scenarios that are then leveraged to collect and organize a supporting cast of players who are devoted to the discovery and exploitation of strategic value creation. (Gupta, MacMillan, & Surie, 2004),

Entrepreneurial leadership encourages employees to embrace the future by instilling faith in the company's goal. Entrepreneurial leadership mobilizes resources, solves problems, fosters critical thinking, and helps organizations achieve their objectives (Kuratko, 2007). Furthermore, with new policies, this leadership style enables leaders to successfully manage businesses and address challenges uniquely and dynamically (Chen, 2007). The organization's best course of action will be determined by the leader. Leaders must possess a specific level of expertise and skill to guide the organization toward its objectives. As a result, a new type of leadership known as entrepreneurial leadership has lately evolved (McGee et al., 2009; Lajin and Zainol, 2015). This concept refers to the needs of leaders in a corporate world characterized by entrepreneurial action and competency.

H4: Entrepreneur leadership has an effect on National Education Standard.

Quality leadership (X5)

Quality leadership attempts to lead, engage, and influence a group, organization, or community, and frequently results in engagement (Islam, Wahab, & Anggum, 2020). Francioli et al. (2015), leadership quality plays a role in creating working conditions that lead to workplace bullying. The attributes of political and administrative leadership encompass a wide range of traits linked with effective, confident leadership. They represent both a culture/climate – an engaging and shared vision – and organizational system and process skills relating to individuals, relationships, and competence (Alimo-Metcalfe et al., 2008). The competence/skills of a leader are linked to the quality and effectiveness of their leadership (Van Wart, 2014). Employee engagement may be influenced to a greater extent by the quality of leadership. According to the social exchange theory, when leaders demonstrate or demonstrate high-quality leadership, their employees are more likely to reciprocate with high employee engagement.

H5: Quality leadership has an effect on National Education Standard.

National Education Standards in Republic of Indonesia

National Education Standards in Indonesia are minimal requirements for the education system in all jurisdictions of the Republic of Indonesia's unitary state. National education standards comprise content requirements, process standards, graduate competency standards, teachers and educational people standards, buildings and infrastructure standards, management procedures, funding standards, and

educational assessment standards. Education quality assurance and control are conducted in compliance with national education standards, as well as evaluation, accreditation, and certification. The following are the eight national education standards:

Content Standard

Standard content is defined as the scope of material and level of competence to obtain graduate competency at specified levels and types of education in PP No.19 of 2005, Article 1 paragraph (5). The content standard outlines the basic framework and structure of the curriculum, as well as the learning load, unit-level curriculum, and educational/academic calendar. It specifies the graduate competency criteria, study material competency criteria, subject competency criteria, and lesson syllabus criteria. The content standard also covers the extent of the material and the level of competence required to acquire graduate competency at various levels and forms of education.

Process Standard

Process standards are guidelines for implementing learning in educational units to meet graduate competency requirements. Process standards, i.e., standards that encompass designing the learning process and putting it into action in a way that is both effective and efficient. In terms of planning, assessment of learning outcomes and supervision are both necessary. Supervision or school principals are in charge of implementation and learning results.

Graduate Competency Standards

Graduate competency requirements are used as a reference for identifying when a student is ready to graduate from a particular educational unit. All subjects or sets of subjects, as well as courses or groups of courses, are covered by graduate competency requirements. Standards of graduate competency are qualifications of graduates' abilities, which comprise attitudes, knowledge, and skills, according to the Government Regulation of the Republic of Indonesia No.19 of 2005 article 1 paragraph (4) concerning National Education Standards.

Standards of Educators and Education Personnel

Standard Educators and Education Personnel must possess academic qualifications and competency as learning agents, as well as be physically and psychologically healthy and capable of achieving national educational objectives. Academic qualification is the minimal level of education that an educator must have, as indicated by a diploma or certificate of appropriate skill issued in line with applicable legislation.

Standard of Facilities and Infrastructure

Each educational unit is required to have facilities that include the workshop, furniture, educational equipment, educational media, books, and other learning resources, consumables, and other equipment needed to support an orderly and sustainable learning process (Ma'ruf et al., 2024). Then, classrooms, education unit leadership rooms, educator rooms, administrative rooms, library rooms, laboratory rooms, workshop rooms, production unit rooms, canteen rooms, power and service installations, places to exercise, places of worship, places to play, places to be creative, and other space needed to support an orderly and continuous learning process.

Management Standards

School-based management is used to implement independence, partnership, participation, openness, and accountability in education units at the elementary and secondary levels. As the person in charge of education management, each educational unit is led by a unit head.

Financing Standard

Investment costs, operating costs, and personal expenditures all go into education funding. The expenditures of supplying buildings and infrastructure, as well as human resource development and fixed working capital, are all included in investment costs. Personal expenditures, on the other hand, include educational fees that students must incur to be able to follow the learning process on a regular and ongoing basis. Educator salary, consumable instructional materials or equipment, and all educational demands are included in operational expenditures.

Educational Assessment Standards

Educators examine learning outcomes, education units assess learning outcomes, and the government assesses learning outcomes all as part of educational evaluation at the elementary and secondary levels

METHODS AND METHODOLOGY

Population and Sample

The participants in this study are all teachers who work in public and private vocational schools in the Yogyakarta D.I. province. The research sample was drawn from six schools, each with 30 respondents, for a total of 180 research participants using the proportional random sampling technique. The PASW Statistics 8 tool was used to evaluate the data using a quantitative method. The initial stage of the data analysis was the examination of precondition tests, which included normality, linearity, and homogeneity tests. T-test and multiple regression tests were also used in the second data analysis.

Data Collection Instrument

In this study, a closed-ended questionnaire was used as the instrument. Distributive leadership, transformational leadership, instructional leadership, entrepreneurial leadership, quality leadership, and national education standards are among the six questionnaires given to responders.

The distributed leadership questionnaire was created using the ideas that underpin the research variables (Creswell, 2014; Wiyono 2007). Based on Bass & Riggio's (2006) research, a transformational leadership questionnaire was created. Five key markers of transformational leadership can be used to assess one's leadership abilities. Based on Hallinger's research, an instructional leadership questionnaire was created (2005).

There are three instructional dimensions and eleven indicators. Rodney (2002) designed a questionnaire for entrepreneur leadership that comprises 16 indicators. Usman (2013) provides a measurement of quality leadership that includes ten indicators. In Table 1, there is a list of Variables and Indicators of Leadership Questionnaire. This table contains questionnaire indicators consisting of Variables X1

to X5, namely: Distributive Leadership (X1), Transformational Leadership (X2), Instructional Leadership (X3), Entrepreneurial Leadership (X4), and Quality Leadership (X5). Meanwhile, for Variable Y, there is the National Education Standard, which can be seen in Table 2.

Table 1: Variable and Indicator of Leadership Questionnaire

Variable	Indicator		Item
Distributive Leadership (X ₁)	1	Personality	1 – 6
	2	Knowledge of education personnel	7 – 12
	3	School Vision and Mission	13 – 16
	4	Decision making ability	17 – 21
	5	Communication skills	22 – 27
	6	Monitoring and evaluation	28 – 30
Transformational Leadership (X ₂)	1	Attribute Charisma	1 – 6
	2	idealized influence behavior	7 – 12
	3	Intellectual stimulation	13 – 18
	4	Inspirational motivation	19 – 24
	5	Individualized Consideration	25 – 30
Instructional Leadership (X ₃)	1	Formulate school goals	1 – 2
	2	Communicating school objectives	3 – 4
	3	Evaluation and Supervision	5 – 10
	4	Coordination of Curriculum	11 – 13
	5	Progress monitoring learn students	14 – 16
	6	Instructional time protection	17 – 18
	7	Enhancement professional development	19 – 26
	8	High maintenance of good work visible to the administrator	27 – 28
	9	High standard development	29 – 30
	10	Intensive provision for successful teacher	31 – 32
	11	Providing incentives for instructional to students	33
Entrepreneur Leadership (X ₄)	1	Principal's ability	1 – 2
	2	Principal's hard work	3 – 4
	3	Principal's independence	5 – 6
	4	Principal's confidence	7 – 9
	5	Principal's performance	10
	6	Principal's conscientiousness	11
	7	Controlling the principal's emotions	12-14, 18, 20
	8	Principal's Planning	15-16, 19,26
	9	Principal's facing challenges	17, 30
	10	Listening to other people's opinion	21
	11	Principal's Initiative	22, 28
	12	Principal's proficiency in speaking	23
	13	Principal's discipline	24
	14	Principal's professionalism	25
	15	Principal's time management	27
	16	Attitude towards the responsibility of the principal	29
Quality Leadership (X ₅)	1	Designing the school's vision, mission and goals	1 – 5
	2	Determine steps to achieve school goals	6 – 10
	3	Develop study program	11 – 14
	4	Be a role model for school personnel	15-19,21,22
	5	Work as a leader with diligence	23,24,26,41
	6	Wise in dealing with problems and making decisions	25,27-30,37
	7	Creating a safe, orderly atmosphere with a sense of togetherness in the school environment	31 – 34
	8	Adopt a humble attitude	20,35,36, 38-40
	9	Time discipline	42-46, 48
	10	Obey the applicable regulations	47,49,50

Based on standard instruments from the national accreditation organization for secondary schools, a questionnaire on national education standards was obtained. To achieve quality national learning, national standards as shown in Table 2 are used to organize, execute, and supervise education.

National education standards are intended to assure the quality of national education in the framework of teaching the nation's life and creating the personality and development of a dignified country.

Table 2: Variable and Indicator of National Education Standard

Variable	Sub Variable	Aspect
National Education Standard (Y)	Content Standard	1) Development of learning tools 2) Curriculum
	Process Standard	1) Syllabus 2) Class management 3) Starting the lesson 4) and others
	Graduate Competency Standards	1) The attitude of faith and piety to God Almighty, according to the development of students 2) Social Attitude with Character 3) And others
	Standards of Educators and Education Personnel	1) a minimum academic qualification of undergraduate or four-diploma from an accredited study program 2) teachers have educator certificates and competency certificates 3) And others
	Standard of Facilities and Infrastructure	1) The school has a land area according to the minimum area requirements 2) The school has a floor area of the building according to the provisions 3) And others
	Management Standards	1) The school has a clear vision, mission, and goals according to the provisions 2) The school has formulated and determined the Medium Term Work Plan and Annual Work Plan according to the provisions 3) And others
	Financing Standard	1) The school has a Work Plan and Budget for the last 3 (three) years which contains a budget allocation for investment 2) Schools have complete facilities and infrastructure investment documents. 3) And others
	Educational Assessment Standards	1) Teachers carry out assessments of student learning outcomes based on 10 assessment head school: (1) valid, (2) objective, (3) fair, (4) integrated, (5) open, (6) comprehensive and continuous (7) systematic (8) referential criteria (9) accountable, (10) reliable. 2) Students take various exams: (1) test, (2) school exam, (3) national exam, (4) unit competency exam, (5) skill competency exam. 3) And others

RESULTS AND DISCUSSION

The regression method was used to examine the data in this study. The PASW Statistics 18 software is used to aid the analysis. The validity and reliability of the data are first guaranteed by the prerequisite and regression tests before the data is evaluated. The validity and reliability tests are summarized in Table 3.

Table 3: Validity and Reliability Test

Variable	R count		R table (5%)	Validity	Cronbach's Alpha	Minimum Cronbach's alpha	Reliability
	Min	Max					
Distributive Leadership (X ₁)	0.546	0.825	0.145	Valid	0.968	0.7	Reliable
Transformational Leadership (X ₂)	0.759	0.921	0.145	Valid	0.989	0.7	Reliable
Instructional Leadership (X ₃)	0.735	0.882	0.145	Valid	0.983	0.7	Reliable
Entrepreneur Leadership (X ₄)	0.198	0.546	0.145	Valid	0.857	0.7	Reliable
Quality Leadership (X ₅)	0.399	0.870	0.145	Valid	0.989	0.7	Reliable
National Education Standard (Y)	0.496	0.906	0.145	Valid	0.999	0.7	Reliable

DISCUSSION

The way of establishing R count must be greater than R table in order to determine the validity of an instrument. The correlation value between the value of the question items and the total number of questions in the instrument is used to calculate R.

The significance of 5% is used to calculate the value of R table, and the number of respondents is 180, resulting in a value of 0.145. The question item is true if the calculated R value from minimum to maximum is greater than R table.

The cronbach's alpha value was also determined using PASW Statistics 18 to assess the instrument's dependability value. The instrument is dependable if the cronbach's alpha value is larger than 0.7.

For both reliability tests, the rule of thumb is 0.7. (Hair et al., 2014). It can be shown from the R count and Cronbach's alpha that all of the instruments employed are legitimate and dependable. If all of the instruments are valid and reliable, the procedure can proceed to the required tests of normality, linearity, multicollinearity, and homogeneity tests

The data can be tested for normality in two ways: by examining the normal P-P Plot Regression Standardized residual diagram and calculating the significance value (2-tailed) in the one-sample table Kolmogorov-Smirnov Test.

The data is generally dispersed in the first approach if the little circle's position follows the shape of a diagonal line. Figure 2 illustrates the normal P-P plot regression standardized residual diagram.

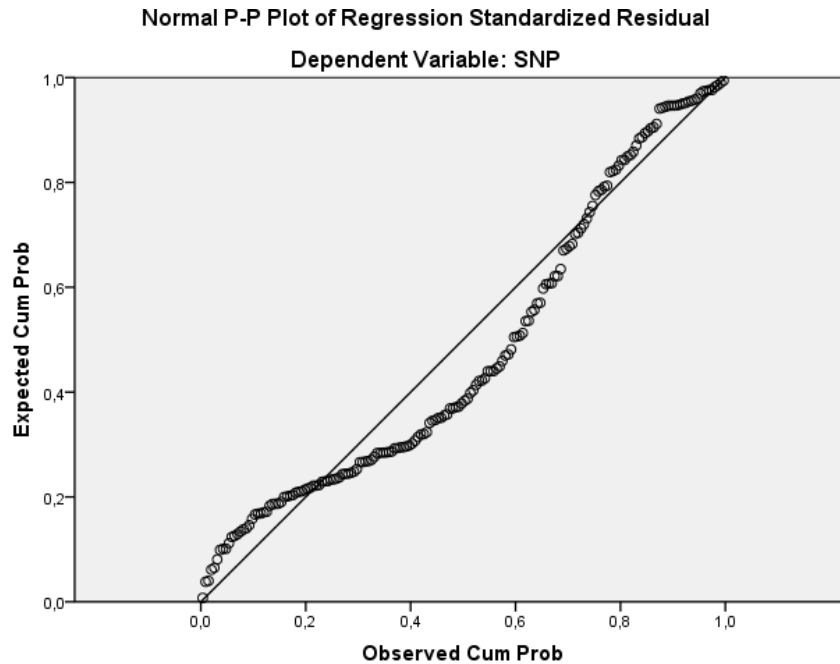


Figure 2: Normal P-P Plot Regression Standardized Residual Diagram

The second approach determines whether the data is normally distributed if the significance value in the one-sample table Kolmogorov-Smirnov Test is greater than 0.05. Table 4 illustrates this. The significance value is 0.073, indicating that the data is regularly distributed if the significance value is greater than 0.05. A significant value greater than 0.05 was found after the normality test, allowing the normality prerequisite test to pass and the linearity test to proceed.

Table 4: One-Sample Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		180
Normal Parameters	Mean	0.000000
	Std. Deviation	72.9194
Most Extreme Differences	Absolute	0.104
	Positive	0.104
	Negative	-0.69
Kolmogorov-Smirnov Z		1.285
Asymp. Sig. (2-tailed)		0.73

A linearity test was carried out to see the linearity of the relationship between the dependent variable and the independent variable. Linearity test can be done by looking at the significance value of the output results in the calculation using SPSS 20.0 for Windows. If the significance value of Deviation from Linearity is greater than 0.10, then the conclusion is that the independent variable and the dependent variable have a significant linear relationship. On the other hand, if the significance value of Deviation from Linearity is less than 0.10, then the conclusion is that there is no linear relationship between the independent variable and the dependent variable.

The data acquired from the significant value between Y and X1 to X5 is more than 0.1, according to Table 5. As a result, the data obtained is linear, allowing for additional requirement tests for the multicollinearity test.

Table 5: Anova for Linearity

Variable	df	Mean Square	F	Sig.
Y *X1	43	7836.429	1.125	0.301
Y *X2	63	6525.405	1.061	0.387
Y *X3	50	5862.319	0.949	0.573
Y *X4	40	7274.349	1.052	0.403
Y *X5	79	7647.725	1.188	0.207

The multicollinearity test is performed using PASW statistics 18 to generate a table of coefficients. The tolerance and VIF values are calculated in the table. The tolerance and VIF values should be checked to see if multicollinearity is present. There is no multicollinearity if the tolerance value is larger than 0.1 and the VIF value is less than 10 as shown in Table 6. Each leadership variable's tolerance and VIF values (distributive, transformational instructional, entrepreneurship, and quality) are at predicted levels. Quality leadership, for example, has a tolerance value of 0.838, which is more than 0.1. When the value is less than 10, the VIF value is 1.194. So that there is no multicollinearity in the quality leadership factors and other leadership variables. The study continued with the homogeneity test because the multicollinearity precursor test passed.

Table 6: Coefficients Collinearity

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	154.788	72.605		2.132	0.034		
Distributive L	0.151	0.200	0.056	0.754	0.452	0.838	1.194
Transformational L	0.652	0.323	0.149	2.020	0.045	0.854	1.172
Instructional L	1.142	0.276	0.298	4.139	0.000	0.900	1.112
Entrepreneur L	0.328	0.432	0.053	0.761	0.448	0.963	1.038
Quality L	1.215	0.591	0.142	0.041	0.041	0.977	1.023

Dependent Variable: National Education Standard

The homogeneity test is used to see if the variation in a population is the same or not. In the analysis of the independent sample t-test and Anova, this test is performed as a precursor (Usmadi, 2020). The homogeneity of data can be calculated in a variety of methods. The Bartlett test is one of them.

Because this test may be applied to data with more than two variables, it was chosen. Furthermore, the Bartlett test is based on a statistic whose distribution yields the precise critical value if the test size is kept constant. These critical values for the same batch size can also be used to approximate critical values for different batch sizes with great precision.

However, because the Bartlett test is sensitive to distribution irregularities, a normality test for each group's distribution of scores is required. According to Table 7, the X2 count (495.82) is smaller than the X2 table (1151.35) based on the Bartlett test count, indicating that the data is homogenous. The data can then be sent to the T-test and regression test.

Table 7: Homogeneity Test (Bartlett Method)

Sample	db= (n-1)	Varians (S ²)	db S ²	Log S ²	db log S ²
X ₁	179	186.86	33448.24	2.27	406.60
X ₂	179	489.81	87675.80	2.69	481.51
X ₃	179	376.98	67479.91	2.58	461.16
X ₄	179	98.37	17608.64	1.99	356.72
X ₅	179	1004.92	179879.80	3.00	537.38
Y	179	7210.35	1290652.73	3.86	690.57
∑	1074	9367.29	1676745.13	16.39	2933.96
S ² Combine	1561.22	because X ² count (495.82) < X ² table (1151.35) then the data is homogeneous			
Log S ² Combine	3.19				
Bartlett	3429.78				
X ² Count	495.82				
X ² Table	1151.35				

After the prerequisite test has been met, the t-test is carried out. This test was conducted to find out how the partial effect of each variable on the independent variable on the dependent variable. There are 2 ways to determine the t-test (partial effect), namely from the significant value and t count. If the significance value is less than 0.05 then it has an effect. Conversely, if the significance value is more than 0.05 then it has no effect. The second way is if the value of the t count is greater than the t table then it has an effect. On the other hand, if the value of the t count is smaller than the t table, then it has no effect.

Because they have a significant value of less than 0.05 and a t-count value bigger than the t-table value, the data obtained using this method show that transformational leadership, instructional leadership, and quality leadership all have a partial impact on national education standards. Furthermore, distributive leadership and entrepreneurial leadership have no partial effect on national education standards because they have a significance value greater than 0.05 and a t-count value that is smaller than the t-table value.

After determining the partial effect of variable X on Y, use the F test to determine whether variable X influences Y simultaneously or simultaneously (table 8). Multiple regression analysis is used by researchers to predict how the condition of the dependent variable (criteria) will vary if two or more independent variables are changed as predictor factors (increase in value). Multiple regression analysis will be used if there are at least two independent variables (Sugiyono, 2018).

Table 8: Annova for F test^a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	245950.757	5	49190.151	8.193	0.000 ^b
Residual	1044701.971	174	6004.034		
Total	1290652.728	179			

a) Predictors: (Constant), Distributive L, Transformational L, Instructional L, Entrepreneur L, Quality L
 b) Dependent Variable: NES
 Based on Table 9, the result of the significance value is 0.000 (less than 0.05) and the F count is 8.193 (bigger than F table 3.12). It can be ascertained that all independent variables (Distributive L, Transformational L, Instructional L, Entrepreneur L, and Quality L) simultaneously affect the National education standards.

Table 9: Result of Hypotesis Test

Variable	Hypothesis	T value	Sig.	F Value	Sig.	Conclusion
DL → NES	H0: DL has an effect on NES	0.754	0.452	8.193	0	H1 is accepted
	H1: DL has no effect on NES					
TL → NES	H0: TL has an effect on NES	2.02	0.045			H0 is accepted
	H1: TL has no effect on NES					
IL → NES	H0: IL has an effect on NES	4.139	0			H0 is accepted
	H1: IL has no effect on NES					
EL → NES	H0: EL has an effect on NES	0.761	0.448			H1 is accepted
	H1: EL has no effect on NES					
QL → NES	H0: QL has an effect on NES	2.057	0.041	H0 is accepted		
	H1: QL has no effect on NES					

CONCLUSION

This research aimed to determine the influence of principals' leadership styles (distributive, transformational, instructional, entrepreneurial, and quality) on achieving the National Education Standards (NES). Through a quantitative approach with a sample of 180 respondents from vocational high school teachers in the D.I. Yogyakarta Province, this study used a closed-ended questionnaire to collect data and analyzed it using regression methods. The T-test results showed that the quality leadership variable ($0.452 > 0.05$) and distributive leadership ($0.448 > 0.05$) did not have a partial effect on NES, while instructional leadership ($0.045 < 0.05$), transformational leadership ($0.000 < 0.05$), and entrepreneurial leadership ($0.041 < 0.05$) had a partial effect on NES. Based on the F-test results ($0.000 < 0.05$), it was found that quality leadership, instructional leadership, transformational leadership, distributive leadership, and entrepreneurial leadership together influenced NES. These findings reveal that principals' leadership plays a crucial role in achieving national education standards. In particular, instructional, transformational, and entrepreneurial leadership styles were found to have a significant impact on NES achievement. Principals who can provide clear instructional guidance, transform the school's vision and values, and apply an entrepreneurial approach to school management tend to be more successful in meeting national education standards. Although distributive and quality leadership did not directly influence NES, they remain essential in creating an environment that supports NES achievement when combined with other leadership styles. This research provides valuable insights for principals and education policymakers in developing effective leadership strategies to improve educational quality and meet established national standards.

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