

PRINCIPAL'S MANAGERIAL PERFORMANCE TO IMPROVE QUALITY OF EDUCATION AT VOCATIONAL HIGH SCHOOL

Sutikno

Sekolah Menengah Kejuruan Negeri 2 Sragen

Email: sutiknofaras@gmail.com

Abstract: This study discusses the importance of principal management in efforts to improve the quality of education in vocational high schools, given the importance of the role of school principals where all policies are oriented towards improving the quality of education. Based on these objectives, a research design was then chosen using a quantitative design. The subject used in this study consisted of three groups, namely vice principals, education staff, and students. The instrument used was a questionnaire used to measure the managerial skills of school principals which consisted of three aspects: the innovator aspect consisting of four indicators, the motivator consisting of seven indicators, and the supervisor consisting of three indicators. The empirical methodology used in practical descriptive analysis represents trends and variations in data such as mean, median, and mode), which are very useful for explaining research data. Descriptive statistical analysis assisted by the SPSS program. The results of the study found that school principals had been able to improve the quality of education in vocational schools based on the innovator aspect with the highest average of 29.40 (Std. Dev 20.28), motivators with the highest average of 49.00 (Std. Dev 38.33), and supervisors with the highest average of 49.00 (Std. Dev 37.59).

Keywords: Management; Quality of Education; Vocational.

INTRODUCTION

Education is a deliberate or planned effort to help increase the development of potential for humans so that it is beneficial for the interests of life as individuals and social beings (G. R. Jones & George, 2017; Robbins & Coulter, 2012). The importance of education must also be balanced with the quality of education (Deschaine & Jankens, 2017), quality education can prepare individuals to be able to compete (Jones & Steeples, 2002), partner (Jones & George, 2017), and be independent of their identity to face the times (Ghavifekr et al., 2013).

School is one of the institutions that is expected to be able to produce quality human beings so in the implementation of education it must be supported by qualified, highly dedicated, creative, and innovative human resources in dealing with changing times so that it runs well by the system and rules applicable (Jones & Steeples, 2002; Scott, 2015). The availability of quality human resources in the implementation of education, of course, will make it easier for schools to achieve the goals that have been set.

Vocational High School (in Indonesia Sekolah Menengah Kejuruan, SMK) is an educational institution that is responsible for producing quality human resources. Vocational secondary education prioritizes preparing students to enter the workforce and developing professional

attitudes. SMK is also a form of education unit at the secondary education level as a continuation of junior high school.

The vision of SMK is to create graduates who are qualified, skilled, with character, and competitive at work. While the goals of SMK (Djaelani et al., 2019; Kemendikbud RI, 2018) are: 1) preparing students to enter the workforce and developing a professional attitude. 2) prepare students to be able to have a career, be able to compete, and be able to develop themselves. 3) preparing the middle-class workforce to fill the current and future needs of the business and industrial world. 4) preparing graduates to become productive, adaptive, and creative citizens.

Education report card data released by Kemdikbudristek, (2022) shows that SMKN 2 Sragen on managerial indicators achieves developing status. The results of this achievement are in line with the results of previous studies showing that there is a gap between the assessment of the level of performance and the desired level of importance (Pamungkas et al., 2019). In addition, teacher professional development activities are still seasonal (Suprianto, 2016), meaning that it has not been carried out periodically. Based on education report card data and the results of previous research, it is necessary to carry out further research related to managerial principles. This is because the success of the school in carrying out the vision and goals it has planned needs to be supported by the leadership of the school principal (Gavioli et al., 2016).

Educational leadership refers to certain qualities that a school principal must possess to be able to assume his responsibilities in order useful. First, the principal must know exactly what he wants to achieve and how to achieve it (Bergestuen et al., 2022). Second, the principal must have many compete for several carries out the mission to realize this vision (Smith et al., 2021). Third, the principal must have a certain character that shows his integrity (Masci et al., 2018).

The principal as the leader of the education unit is the driving force for school resources, especially teachers and school employees (Obiose et al., 2022; Tener et al., 2022). In addition, the principal is at the forefront in terms of modeling, motivating, and empowering. This is in line with the popular expression of the educational figure Ki Hadjar Dewantara, *ing ngarsa sung tuladha, ing madya mangun karsa, tut wuri handayani*. Thus, the principal is required to develop a culture of quality, take on the task of having a very strong vision of total quality for his institution, a clear commitment to the process of improving the quality of students in vocational high schools, continuously communicate about the quality of service to all levels of existing components in SMKs as well as their work units, all policies are oriented towards quality improvement, transparent and proactive towards growing aspirations specifically for customers, motivating staff to work more dynamically-innovatively productively, able to self-correct policies, have effective teamwork and able to develop the quality of education in schools.

However, the reality on the ground shows that the quality of education at the SMK level has not achieved the expected results. This can be seen from the labor force in Indonesia in

February 2022 reaching 10,38% of the total workforce (Statistik, 2022). In addition, most people underestimate SMK because until now the industrial world has doubted the ability of student vocation (Moulida et al., 2022). This happens because student vocation who complete their education tend to have minimal theoretical knowledge, are out of date, and are far from the expectations of the industrial world. Currently, various industries still tend to employ more SMA grades than SMK grades, because more SMA grades have more positive integrity than SMK grades.

Another point of view is that seen from the side of the field of academic achievement, vocational students are still lagging when compared to the academic achievements of high school students (Moulida et al., 2022). So generally, in the view of the public, they still think that sending their children to high school is more guaranteed for academic achievement than sending their children to high school. Even though Vocational High Schools have additional special skills, many people are of the view that they have not considered these additional skills important.

Therefore, the high number of unemployed vocational schools and the negative perceptions of society and the industrial world indicate that improving the quality of education in vocational schools is a fundamental problem that must be resolved. In other words, the absorption of graduates who are the output of Vocational Schools will increase productivity which in turn will increase economic growth through the creation of added value to goods and services which is explained by the level of community participation in sending their children to study at the Vocational High School level. The higher the level of community participation, the higher the quality of human resources that can be used in processing available resources in the economy. This means that the provision of vocational schools to print necessary skills is very important.

In the last decade, various studies oriented towards improving the quality of education in Vocational High Schools have been carried out (e.g. Atkins & Cummins, 2022; Lisnawati, 2017; Maryono, 2015; Ramos-pla et al., 2021; Zubair & Sasongko, 2021), but no research has been found on the management of school principals in improving the quality of education in Vocational High Schools. So that this research focuses on the management of school principals in improving the quality of education. The research question to be answered through this research is how is the management of school principals in improving the quality of education?

METHOD

Design Research

The purpose of this research is to explore how school principal management improves the quality of education. Based on these objectives, a research design was then chosen using a descriptive design. A descriptive study is a study that describes something that is the target of research in detail or depth. This research was conducted by collecting information. Information was combined through a literature study approach, books, journals, and other data information.

Location of Research

The research location is at State Vocational High School 2 Sragen (in Indonesian Sekolah Menengah Kejuruan (SMK)), which is located at Jalan. Dr. Sutomo No.4, Kebayan 1, Sragen Kulon, Sragen District, Sragen Regency, Central Java 57212. The sample used in this study consisted of 3 groups, namely vice principals, educational staff, and students at SMKN 2 Sragen.

Research Instruments

The instrument used is a questionnaire used to measure the managerial skills of school principals to improve the quality of education. The measured managerial skills consist of 3 aspects (Abernethy et al., 2021; Parinet et al., 2004; Tener et al., 2022) namely: aspects of innovators, motivators, and supervisors. Aspects and indicators of managerial skills that are measured are presented in Table 1.

Table 1. Aspects and Indicators of Principal Managerial Skills

Number	Aspects	Indicators
1	Innovator	Initiator of reform in Teaching and Learning Activities
		Renewal in teacher development
		Updates in extracurricular activities
		Explore resources with the school committee
2	Motivator	Partnership cooperation
		Exemplary
		Democratic and transparent
		Work environment arrangement
		Conducive working atmosphere
		Awards
3	Supervisors	Application of sanctions
		Develop a teaching supervision program
		Carry out a teaching supervision program
		Utilizing the results of teaching supervision

Data Analysis Techniques

Descriptive analysis is a kind of data research that helps in describing, demonstrating, or helping to summarize data points so that patterns can be developed that satisfy all data conditions. The empirical methodology used in practical descriptive analysis represents trends and variations in data such as mean, median, and mode), which are very useful for explaining research data. Descriptive statistical analysis assisted by the SPSS program.

RESULTS AND DISCUSSION

Table 2. Descriptive Statistics Analysis

Number	Characteristics	Category	Frequency (%)
1	Sex	Male	31(63,3%)
		Female	18(36,7%)
2	Age of respondents	15-25 year	12(24,5%)
		26-35 year	4(8,2%)
		36-45 year	7(14,3%)
		46-55 year	13(26,5%)
		56-65 year	12(24,5%)
		>60 year	1(2,0%)
3	Main occupation	Vice-Principal	2(4,1%)
		Education Staff	1(2,0%)
		Educator	34(69,4%)
		Students	12(24,5%)
4	Pendidikan Terakhir	DIV/ Undergraduate	25(67,6%)
		Postgraduate	12(32,4%)
5	Length of work	< 5 year	4(10,8%)
		5 – 10 year	2(5,4%)
		11 – 15 year	6(16,2%)
		16 – 20 year	9(24,3%)
		> 20 year	16(43,2%)

Based on the data collected (**Table 2**), it is known that the number of respondents was 49 people, consisting of 31 (63.3%) men and 18 (36.7%) women. This number is following research needs, and this data shows the objectivity of the research. Where the distribution of questionnaires is not done in a discriminatory manner but is given to all units of analysis that meet the requirements and are willing to give their opinions.

Based on research data (**Table 2**), it can be seen that the unit of analysis is dominated by respondents aged between 46-55 years, namely 13 (26.5%) people, while respondents aged over 60 years are 1 (2.0%). This shows that the research sample consisted of various ages. So it is possible to have a variety of opinions and strengthen the phenomenon being studied. In addition, this information serves as evidence that the research was carried out according to procedures, in this case prioritizing aspects of objectivity and openness, that is, any of the respondents who met the requirements and voluntarily participated in this research.

Based on research data (**Table 2**), it is known that there are 4 (10.8%) respondents with less than 5 years of service, 2 (5.4%) of respondents with 5-10 years of service, 11-15 years of service as many as 6(16.2%), respondents with a working period between 16-20 years were 9(24.3%), and respondents with a working period over 20 years were 16(43.2%). This data illustrates that the employees who were the respondents in this study were dominated by employees with more than 20 years of service.

Management of Principals in Improving the Quality of Education

Aspects Innovator

Description of data on teacher perceptions related to the principal's role as an innovator includes; (1) Initiator of reform in teaching and learning activities, (2) Renewal in teacher development, (3) Renewal in extracurricular activities, and (4) Exploring resources with the school committee. The results of the principal's management analysis on the innovator aspect are presented in Table 3.

Table 3. Principal Management on the Innovator Aspect

Number	Aspects	Indicators	Mean	Std. Dev	Std. Error
1	Innovator	Initiator of reform in Teaching and Learning Activities	29,40	20,28	9,07
		Renewal in teacher development	29,40	19,91	8,90
		Updates in extracurricular activities	19,60	11,22	5,02
		Explore resources with the school committee	19,60	14,14	6,32

The analysis results show that the principal has been able to carry out his function as an innovator, in the sense that the principal can initiate reforms in teaching and learning activities. This can be seen from the highest average value of 29.40 (Std. Dev 20.28). While the second highest indicator is renewal in teacher development with an average of 29.40 (Std. Dev 19.91). The pattern of responses given by respondents to the managerial skills of school principals in the innovator aspect is presented in

Table 4.

Table 4. Response Patterns on the Innovator Aspect

Number	Indicator	Statement	Very Satisfied (%)	Satisfied (%)	Neutral (%)	Unsatisfied (%)	Very Unsatisfied (%)
1	Initiator of reform in Teaching and Learning Activities	1	23 (46,9%)	12 (24,5%)	8 (16,3%)	3 (6,1%)	3 (6,1%)
		2	17 (34,7%)	15 (30,6%)	10 (20,4%)	5 (10,2%)	2 (4,1%)
		3	18 (36,7%)	13 (26,5%)	9 (18,4%)	7 (14,3%)	2 (4,1%)
2	Renewal in teacher development	4	21 (42,9%)	9 (18,4%)	11 (22,4%)	6 (12,2%)	2 (4,1%)
		5	18 (36,7%)	12 (24,5%)	9 (18,4%)	7 (14,3%)	3 (6,1%)
		6	22 (44,9%)	10 (20,4%)	10 (20,4%)	2 (4,1%)	5 (10,2%)

3	Updates in extracurricular activities	7	24 (49,0%)	8 (16,3%)	7 (14,3%)	5 (10,2%)	5 (10,2%)
		8	11 (22,4%)	19 (38,8%)	10 (20,4%)	5 (10,2%)	4 (8,2%)
4	Explore resources with the school committee	9	16 (32,7%)	15 (30,6%)	11 (22,4%)	6 (12,2%)	1 (2,0%)
		10	25 (51,0%)	10 (20,4%)	6 (12,2%)	4 (8,2%)	4 (8,2%)

The research findings are in line with what was conveyed by Mulyasa, (2017), that school principals as innovators will be reflected in how they work creatively. Creativity means that in increasing the professionalism of education in schools, school principals must try to find new ideas and ways of carrying out their duties (Munandar, 2014). This is done so that education staff can understand what is conveyed by the principal as a leader so that they can achieve goals by the mission and vision of the school.

The principal as the leader of education in the school has an important role in improving the quality of the learning process in the school he leads (Atkins & Cummins, 2022). The school principal, who is the sole leader in the school, has the responsibility to teach and influence all parties involved in educational activities at school to want to work together in achieving school goals (Castro-rodriguez et al., 2015). Principals are required to be able to lead as well as organize and manage the implementation of teaching and learning programs held in the schools they lead (Ramos-pla et al., 2021). In this case, the principal must be able to realize an effective and efficient learning process to achieve learning productivity which in turn can improve the quality of the learning process.

The function of the principal as a manager and leader is a very strategic position for an innovator (Obiose et al., 2022). This is based on the fact that an innovator must have "power" so that the innovation mission he carries is successful. This agrees with what was stated by (Tener et al., 2022) the success of a change is influenced by the power of the change agent. In carrying out their duties the principal is also required to have a vision of the duties of the principal. Principals are not only required to be good managers, but innovation (change) in school management requires principals to have a vision of school management based on school-based management (Masci et al., 2018; Smith et al., 2021).

The results of the analysis carried out regarding the innovator aspect show that the role of the school principal is already an innovator in improving the quality of teachers, based on the duties and roles of the principal as well as the teacher being able to improve the quality of the predetermined teachers. To work constructively, creatively, delegatively, integratively, rationally, and objectively, exemplary, disciplined, but having the right strategy to establish a harmonious relationship with the environment, also seek new ideas, as well as innovative

learning. Thus that the school principal's role as an innovator in improving teacher quality it aims to increase the professionalism of school principals and teachers can work together in realizing school quality.

Aspects Motivator

Description of the data about teacher perceptions related to the principal's role as a motivator includes; (1) Partnership cooperation, (2) Exemplary, (3) Democratic and transparent, (4) Structuring the work environment, (5) A conducive working atmosphere, (6) Awarding, and (7) Application of sanctions. The results of the principal's management analysis on the innovator aspect are presented in Table 5.

Table 5. Manajemen Kepala Sekolah pada Aspek Motivator

Number	Aspects	Indicators	Mean	Std. Dev	Std. Error
1	Motivator	Partnership cooperation	29,40	23,84	10,66
		Exemplary	39,20	28,92	12,93
		Democratic and transparent	19,60	12,20	5,46
		Work environment arrangement	19,60	12,93	5,78
		Conducive working atmosphere	29,40	16,46	7,36
		Awards	49,00	38,33	17,14
		Application of sanctions	19,60	11,22	5,02

The results of the analysis show that the principal has been able to carry out his function as a motivator, in the sense that the principal as a motivator can give appreciation to educators and education staff. This can be seen from the highest average value of 49.00 (Std. Dev 38.33). While the second highest indicator is setting an example with an average of 39.20 (Std. Dev 28.92). The pattern of responses given by respondents to the managerial skills of school principals in the motivator aspect is presented in **Table 6**.

The research findings are in line with what was conveyed by (Obiose et al., 2022; Smith et al., 2021) saying that several factors affect employee motivation, including those related to; (1) family and culture; (2) self-concept; (3) gender; (4) recognition and achievement; (5) goals or aspirations; (6) learning ability; (7) employee condition; (8) environmental conditions; (9) dynamic elements in work; (10) leadership efforts to motivate employees. Principal leadership is one of the important factors for achieving success with indicators of achieving the goals of an educational institution, so the principal must be able to bring his institution towards achieving the goals that have been set.

Principals should be able to motivate teachers. Leadership is the ability to inspire others to work together as a group, to achieve a common goal. The ability to lead is obtained through daily life experiences (Djaelani et al., 2019). Motivation is closely related to the appreciation of a

need, the urge to fulfill the need, behaving in a certain way to meet the need, and achieving goals that meet that need. In learning, motivation is a very important role.

Table 6. Response Patterns on the Motivator Aspect

Number	Indicator	Statement	Very Satisfied (%)	Satisfied (%)	Neutral (%)	Unsatisfied (%)	Very Unsatisfied (%)
1	Partnership cooperation	11	30 (61,2%)	6 (12,2%)	5 (10,2%)	7 (14,3%)	1 (2,0%)
		12	18 (36,7%)	13 (26,5%)	9 (18,4%)	7 (14,3%)	2 (4,1%)
		13	21 (42,9%)	9 (18,4%)	11 (22,4%)	6 (12,2%)	2 (4,1%)
2	Exemplary	14	30 (61,2%)	6 (12,2%)	5 (10,2%)	7 (14,3%)	1 (2,0%)
		15	11 (22,4%)	19 (38,8%)	10 (20,4%)	5 (10,2%)	4 (8,2%)
		16	22 (44,9%)	10 (20,4%)	10 (20,4%)	2 (4,1%)	5 (10,2%)
		17	24 (49,0%)	8 (16,3%)	7 (14,3%)	5 (10,2%)	5 (10,2%)
3	Democratic and transparent	18	22 (44,9%)	8 (16,3%)	10 (20,4%)	5 (10,2%)	4 (8,2%)
		19	17 (34,7%)	13 (26,5%)	9 (18,4%)	7 (14,3%)	3 (6,1%)
4	Work environment arrangement	20	21 (42,9%)	9 (18,4%)	11 (22,4%)	6 (12,2%)	2 (4,1%)
		21	18 (36,7%)	13 (26,5%)	9 (18,4%)	7 (14,3%)	2 (4,1%)
5	Conducive working atmosphere	22	21 (42,9%)	9 (18,4%)	11 (22,4%)	6 (12,2%)	2 (4,1%)
		23	18 (36,7%)	12 (24,5%)	9 (18,4%)	7 (14,3%)	3 (6,1%)
		24	11 (22,4%)	19 (38,8%)	10 (20,4%)	5 (10,2%)	4 (8,2%)
6	Awards	25	16 (32,7%)	15 (30,6%)	11 (22,4%)	6 (12,2%)	1 (2,0%)
		26	21 (42,9%)	9 (18,4%)	11 (22,4%)	6 (12,2%)	2 (4,1%)
		27	22 (44,9%)	10 (20,4%)	10 (20,4%)	2 (4,1%)	5 (10,2%)
		28	24 (49,0%)	8 (16,3%)	7 (14,3%)	5 (10,2%)	5 (10,2%)
		29	30 (61,2%)	6 (12,2%)	5 (10,2%)	7 (14,3%)	1 (2,0%)
		30	24 (49,0%)	8 (16,3%)	7 (14,3%)	5 (10,2%)	5 (10,2%)
7	Application of sanctions	31	11 (22,4%)	19 (38,8%)	10 (20,4%)	5 (10,2%)	4 (8,2%)

Motivation greatly determines the quality of a person's behavior, whether a person's motivation in carrying out an activity is high or low can be seen from the quality of his behavior, which is shown by sincerity, perseverance, attention, and fortitude. Within the scope of the school system. The Principal has an important role in motivating teachers to work well. The school principal should form a good and strong manager with a clear task management system. A good managerial system can be formed with the right and correct leadership style of the Principal. With the competence possessed by the Principal, he should be able to use the right leadership style so that he can motivate his subordinates to achieve the expected goals.

Aspects Supervisors

Academic supervision is activities that create proper conditions for the continuous professional growth of teachers (Ndapaloka et al., 2016). So academic supervision management activities are needed and must be regulated in such a way as to increase teacher professionalism in carrying out their duties as an educator. The ability of a teacher to understand the competencies possessed greatly determines the success of his students because students will develop if the teacher can develop himself (Moulida et al., 2022).

Description of the data about teacher perceptions related to the principal's role as a supervisor includes; (1) Developing a teaching supervision program, (2) Implementing a teaching supervision program, and (3) Utilizing the results of teaching supervision. The results of the principal's management analysis on the supervisor aspect are presented in **Table 7**.

Table 7. Principal Management in Supervision Aspects

Number	Aspects	Indicators	Mean	Std. Dev	Std. Error
1	Supervisors	Develop a teaching supervision program	39,20	23,53	10,52
		Carry out a teaching supervision program	49,00	37,59	16,81
		Utilizing the results of teaching supervision	29,40	23,10	10,33

The results of the analysis show that the principal has been able to carry out his function as a supervisor, in the sense that the principal has implemented a teaching supervision program. This can be seen from the highest average value of 49.00 (Std. Dev 37.59). While the second highest indicator is compiling a teaching supervision program with an average of 39.20 (Std. Dev 23.53). The pattern of responses given by respondents to the managerial skills of school principals in the innovator aspect is presented in **Table 8**.

Table 8. Response Pattern on Supervision Aspect

Number	Indicator	Statement	Very Satisfied (%)	Satisfied (%)	Neutral (%)	Unsatisfied (%)	Very Unsatisfied (%)
1	Develop a teaching supervision program	32	17 (34,7%)	15 (30,6%)	10 (20,4%)	5 (10,2%)	2 (4,1%)
		33	18 (36,7%)	13 (26,5%)	9 (18,4%)	7 (14,3%)	2 (4,1%)
		34	11 (22,4%)	19 (38,8%)	10 (20,4%)	5 (10,2%)	4 (8,2%)
		35	16 (32,7%)	15 (30,6%)	11 (22,4%)	6 (12,2%)	1 (2,0%)
2	Carry out a teaching supervision program	36	25 (51,0%)	10 (20,4%)	6 (12,2%)	4 (8,2%)	4 (8,2%)
		37	21 (42,9%)	9 (18,4%)	11 (22,4%)	6 (12,2%)	2 (4,1%)
		38	30 (61,2%)	6 (12,2%)	5 (10,2%)	7 (14,3%)	1 (2,0%)
		39	11 (22,4%)	19 (38,8%)	10 (20,4%)	5 (10,2%)	4 (8,2%)
		40	23 (46,9%)	12 (24,5%)	8 (16,3%)	3 (6,1%)	3 (6,1%)
3	Utilizing the results of teaching supervision	41	17 (34,7%)	15 (30,6%)	10 (20,4%)	5 (10,2%)	2 (4,1%)
		42	21 (42,9%)	10 (20,4%)	7 (14,3%)	6 (12,2%)	5 (10,2%)
		43	30 (61,2%)	6 (12,2%)	5 (10,2%)	7 (14,3%)	1 (2,0%)

The research findings are in line with the results of previous research that academic supervision has a significant effect on teacher performance, in this case, academic supervision must also be able to increase teacher performance potential and also increase responsibility and make teachers professional. In connection with efforts to improve teacher performance, contributions to the implementation of teaching supervision by the principal as a supervisor can be needed about achieving the goal of becoming a professional teacher in his field. In addition to the various efforts that have been made by the government, it is felt that teachers need to multiply themselves independently by learning (Moula, 2021). Teachers also expect assistance through extending policy power from above in the form of teaching supervision. About (Daud, 2010; Moulida et al., 2022) states that teaching supervision is the only one, in the efforts to develop teachers steadily, in the sense that it is carried out continuously and relatively for all teachers. That is why teaching supervision is important to improve teacher performance (Al-Abdali & Al-Balushi, 2016). Then it is also explained that supervision is carried out and directed to matters of a technical nature. Operational in education, namely to carry out improvements or teaching and

learning processes that are effective, efficient, and relevant. The value of supervision lies in improving teaching procedures which are reflected in student teaching.

CONCLUSION

The conclusion that can be drawn based on the results of the research and discussion is that school principals have succeeded in improving the quality of education in vocational high schools which are reviewed based on the aspects of innovators, motivators, and supervisors. Principal managerial skills are very important in efforts to face future challenges that are increasingly complex and dynamic. Given the concept of leadership in education in schools, it is described as a place for leadership to take place while at the same time determining the leadership model that must be carried out to achieve quality education. Thus it can be said that the quality of leadership plays an important role in the success of creating quality education.

BIBLIOGRAPHY

- Abernethy, M. A., Anderson, S. W., Nair, S., & Anson, Y. (2021). Accounting, Organizations and Society Manager ' growth mindset ' and resource management practices. *Accounting, Organizations and Society*, 91, 101200. <https://doi.org/10.1016/j.aos.2020.101200>
- Al-Abdali, N. S., & Al-Balushi, S. M. (2016). Teaching for Creativity by Science Teachers in Grades 5–10. *International Journal of Science and Mathematics Education*, 14, 251–268. <https://doi.org/10.1007/s10763-014-9612-3>
- Atkins, P. J., & Cummins, M. (2022). Improved scalability and risk factor proxying with a two-step principal component analysis for multi-curve modeling. *European Journal of Operational Research*, 304, 1331–1348. <https://doi.org/10.1016/j.ejor.2022.04.044>
- Bergestuen, T., Thompson, K., & Strutton, D. (2022). Principal-independent manufacturers' representative relationships: Review, synthesis, directions for future research. *Industrial Marketing Management*, 102(February), 421–437. <https://doi.org/10.1016/j.indmarman.2022.01.024>
- Castro-rodriguez, J. A., Rodriguez-martinez, C. E., & Sossa-bricen, M. P. (2015). Principal findings of systematic reviews for the management of acute bronchiolitis in children. *Paediatric Respiratory Reviews Review*, 16, 267–275. <https://doi.org/10.1016/j.prrv.2014.11.004>
- Daud, N. (2010). Investigating the Relationship between Quality of Work Life and Organizational Commitment amongst Employees in Malaysian Firms. *International Journal of Business and Management*, 5(10), 75–82. <https://doi.org/10.5539/ijbm.v5n10p75>
- Deschaine, M. E., & Jankens, B. P. (2017). Creating successful and sustainable educational administrative internship experiences. *Higher Education, Skills and Work-Based Learning*, 7(1), 5–20.

- Djaelani, A. R., Pratikto, H. H., & Setiawan, T. (2019). Implementasi Kurikulum 2013 dan Permasalahannya (Studi Kasus Di SMK Ganesa Kabupaten Demak). *Jurnal Pawiyatan: IKIP Veteran Semarang*, 26(1), 1–9.
- Gavioli, A., Godoy, E., Leones, C., Pagliosa, L., & Guedes, C. (2016). Optimization of management zone delineation by using spatial principal components. *Computers and Electronics in Agriculture*, 127, 302–310. <https://doi.org/10.1016/j.compag.2016.06.029>
- Ghavifekr, S., Afshari, M., & Seger, S. S. & K. (2013). ICT Application for Administration and Management: A Conceptual Review. *Procedia - Social and Behavioral Sciences*, 103, 1344–1351.
- Jones, C., & Steeples, C. (2002). *Perspectives and Issues in Networked Learning*. https://doi.org/10.1007/978-1-4471-0181-9_1
- Jones, G. R., & George, J. M. (2017). *Essentials of Contemporary Management*. McGraw-Hill Education.
- Kemdikbudristek. (2022). *Rapor Pendidikan*. https://pusmendik.kemdikbud.go.id/profil_pendidikan/profil-wilayah.php
- Kemendikbud RI. (2018). *Permendikbud RI Nomor 34, Tahun 2018, tentang Standar Nasional Pendidikan SMK/MAK*.
- Lisnawati, R. (2017). Fungsi Manajemen Kepala Sekolah, Motivasi, dan Kinerja Guru. *Jurnal Pendidikan: Teori Dan Praktik*, 2(2).
- Maryono. (2015). The Implementation of the Environmental Education at “Adiwiyata” Schools in Pacitan Regency (An Analysis of the Implementation of Grindle Model Policy). *Journal of Education and Practice*, 6(17), 31–42. <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1079888&site=ehost-live>
- Masci, C., Witte, K. De, & Agasisti, T. (2018). Socio-Economic Planning Sciences The influence of school size, principal characteristics and school management practices on educational performance : An efficiency analysis of Italian students attending middle schools. *Socio-Economic Planning Sciences*, 61, 52–69. <https://doi.org/10.1016/j.seps.2016.09.009>
- Moula, Z. (2021). Academic perceptions of barriers and facilitators of creative pedagogies in higher education: A cross-cultural study between the UK and China. *Thinking Skills and Creativity*, 41, 1–11. <https://doi.org/10.1016/j.tsc.2021.100923>
- Moulida, C. W., Yusrizal, & Niswanto. (2022). Principal Management in Improving Teacher Quality at State Vocational High School. *Al-Ishlah: Jurnal Pendidikan*, 14(1), 679–685. <https://doi.org/10.35445/alishlah.v14i1.545>
- Mulyasa, E. (2017). *Manajemen dan Kepemimpinan Kepala Sekolah*. Bumi Aksara.
- Munandar, U. (2014). *Pengembangan Kreativitas Anak Berbakat*. Rineka Cipta.
- Ndapaloka, V., Hardyanto, W., & Prihatin, T. (2016). Pengaruh Supervisi Akademik Pengawas Dan

- Kepemimpinan Kepala Sekolah Melalui Motivasi Berprestasi Sebagai Mediasi Terhadap Kinerja Guru SMK Negeri Kabupaten Ende. *Educational Management*, 5(1), 42–54.
- Obiose, U., Nwajei, K., Trond, B., & Mikael, M. (2022). *Overcoming the principal-agent problem: The need for alignment of tools and methods in collaborative project delivery*. 40(August), 750–762. <https://doi.org/10.1016/j.ijproman.2022.08.003>
- Pamungkas, R. A., Alfarishi, E., Aditiarna, E., Mukhlisin, A., Faticha, R., & Aziza, A. (2019). Analisis Kualitas Website SMK Negeri 2 Sragen dengan Metode Webqual 4.0 dan Importance Performance Analysist (IPA). *Jurnal Media Informatika Budidarma*, 3(1), 17–23. <https://doi.org/10.30865/mib.v3i1.1009>
- Parinet, B., Lhote, A., & Legube, B. (2004). Principal component analysis : an appropriate tool for water quality evaluation and management — application to a tropical lake system. *Ecological Modelling*, 178, 295–311. <https://doi.org/10.1016/j.ecolmodel.2004.03.007>
- Ramos-pla, A., Tintor, M., & Arco, I. (2021). Leadership in times of crisis. School principals facing COVID-19. *Heliyon*, 7(February). <https://doi.org/10.1016/j.heliyon.2021.e08443>
- Robbins, S. P., & Coulter, M. (2012). *Management*. Pearson Education. Inc.
- Scott, C. L. (2015). The Futures of Learning 3: what kind of pedagogies for the 21st century? *Education Research and Foresight*, 1–21. <https://doi.org/10.1016/j.pse.2015.08.005>
- Smith, T. E., Reinke, W. M., Herman, K. C., & Sebastian, J. (2021). Exploring the link between principal leadership and family engagement across the elementary and middle school. *Journal of School Psychology*, 84(December 2020), 49–62. <https://doi.org/10.1016/j.jsp.2020.12.006>
- Statistik, B. P. (2022). *Labour Force Situation in Indonesia* (Issue February 2022).
- Suprianto, S. E. (2016). *Analisis Pengembangan Profesionalisme Guru Berkelanjutan Di SMK Negeri 2 Sragen*. Universitas Muhammadiyah Surakarta.
- Tener, D., Lusky-weisrose, E., Roe, D., Mor, R., Sigad, L. I., Shaharabani, M., Yahia-zetawy, Y., & Qwekiss-halabi, S. (2022). Child Abuse & Neglect School principals coping with child sexual abuse in their schools. *Child Abuse & Neglect*, 129(April), 105656. <https://doi.org/10.1016/j.chiabu.2022.105656>
- Zubair, A., & Sasongko, R. N. (2021). Manajemen Peningkatan Kinerja Guru Berbasis Mbs. *Kebijakan: Jurnal Ilmu Administrasi*, 12(1), 304–311. <https://doi.org/10.23969/kebijakan.v12i1.3472>

