

MODELING AND OPTIMIZATION OF PRINCIPAL SUPERVISION (EMPIRICAL STUDY USING THE POP-SDM APPROACH AT VOCATIONAL HIGH SCHOOLS IN BOGOR REGENCY)

Gugun Gunadi¹, Soewarto Hardhienata², Siti Pupu Fauziah³

Pakuan University Graduate School, Indonesia

E-mail: gunadi@unida.ac.id¹, soewartohardhienata@unpak.ac.id²,
siti.pupu.fauziah@unida.ac.id³

ABSTRACT

This study aims to find strategies and ways to improve the effectiveness of principal supervision by examining other variables that have a positive and dominant influence on the effectiveness of principal supervision. From the qualitative research that has been carried out, different variables are Servant leadership and organizational culture as exogenous variables and organizational climate and personality as entering variables. The strategies and methods found were recommended to related parties, namely teachers, school principals, school supervisors, education offices, and the Ministry of Education and Culture. This study uses a combination of Correlation Research and SITOREM Analysis. This joint research methodology uses a correlation research flow, which is analyzed using SITOREM analysis. The residents in the study are all supervisors and principals of vocational schools in Bogor Regency. The sampling technique in this study uses a proportional random sampling technique, which collects data by taking a proportional population to be used as a sample. The formula used to determine the sample uses the Slovin formula with a margin of error of 5%. The study's conclusion showed a positive and significant influence of serving leadership, personality, and organizational climate on the effectiveness of principal supervision.

Keywords: *Law enforcement; rationality; philosophy of law; legal philosophy*

Introduction

As the spearhead of "human resource producers," schools carry out essential and strategic tasks. In this case, the position of the school principal is a person who holds a key role in achieving the above goals (Mathis, 2021). The success of the Principal shows that the Principal is the person who determines the center and rhythm of a school. Furthermore, the study concluded that the success of a school is the success of the Principal. The above formulation shows how vital the role of the Principal is in moving school life to achieve goals. Two things need to be considered: 1) The Principal plays a role as a central force that drives school life, and 2) The Principal must understand his duties and functions for the school's success and have concern for teachers and students. In addition, the Principal is also required

to be an agent of change through his leadership dimension, which always tries to motivate the spirit of all components of the school to progress and improve school quality (Mangkunegara A., 2022). Law Number 20 of 2023 concerning the National Education System defines Educators and Education Personnel. The law explains that education personnel is qualified teachers, lecturers, counselors, learning teachers, widyaiswara, tutors, instructors, facilitators, and others, according to their specificity, who participate in organizing education. Thus, the Principal is an Education Personnel, according to the law. The Principal is the teacher who does the additional work.

Given the Principal's strategic position, the Principal's appointment must go through processes and procedures based on applicable regulations. The appointment procedure provides clues about educational resources and background, experience, age, rank, and integrity. Meanwhile, the regulation emphasizes the requirements or criteria that need to be met by prospective school principals. Based on Permendiknas Number 13 of 2017, dated April 17, 2017, concerning Standards for School Principals/Madrasahs, a school principal at each level of education must have the status of a teacher at that level. After being successfully elected as a school principal, teachers must develop the competency dimension (Zaluchu, 2020). One of the competency dimensions that must be developed is the supervision competency dimension, with competency demands: 1) Planning an academic supervision program to improve teacher professionalism, 2) Carrying out teacher academic supervision using the right supervision approach and techniques, 3) Following up on the results of teacher academic supervision to improve teacher professionalism.

The problem arose after a principal planned an academic supervision program to improve the professionalism of teachers because the Principal had to play the supervisor role. The Principal must carry out teachers' academic supervision by using the right supervision approach and techniques and follow up on the teachers' academic supervision results to improve teachers' professionalism. Not every institution or university in Indonesia opens a special department that produces principals and supervisors (Yudhi S, 2021). As a supervisor, the Principal has the burden of roles and responsibilities to monitor, foster, and improve the teaching and learning process in the classroom or school. This responsibility is known as the supervisory responsibility. As a leadership element in the school organizational system, the principal face directly with the teacher as an element that carries out the teaching and learning process (Suwanto, 2019). From the concept of supervision as a process of helping teachers to improve learning and curriculum, it is implied that the Principal is a supervisor who helps teachers, individually and in groups, to enhance teaching and curriculum. There is still one area of supervision, namely teacher development (Yenming, 2019).

For school principals to succeed in improving teaching, they need to understand and use motives and techniques that are considered appropriate when conducting supervision. The central principal's role is also that of a teaching supervisor. Supervision is the process of teacher coaching to narrow the gap between actual teaching behavior and ideal teaching behavior. Supervision focuses on efforts to help teachers understand innovations and change their performance to match those innovations. In carrying out supervision several general principles must be the basis for school principals in carrying out supervision, namely: 1) The

relationship between the Principal as a supervisor and the teacher is an equal and interactive collegial relationship from the direction pad as a relationship between experienced professionals and less experienced professionals so that an interactive professional dialogue is established in an intimate and open atmosphere, whose function is not only as a direction or instruction from the supervisor, 2) Discussion meetings between the Principal as supervisors and teachers are democratic, both in training planning and in review and surprise actions. A democratic atmosphere can be realized if both parties are free to express their opinions, do not dominate the conversation, and have the nature of openness to review all opinions expressed in the meeting. Ultimately, the decision is determined by mutual agreement (Mcknight, 2022); 3) The purpose of supervision is centered on the needs and aspirations of teachers and remains within the scope of the actual behavior of teachers. With this principle, teachers are encouraged to analyze their needs and aspirations to develop themselves; 4) Retrospective assessments are carried out based on careful observation of data based on contracts and are carried out immediately. From the results of the reverse analysis, the next plan is determined: 5) Prioritizing the initiative and responsibility of teachers, both at the planning stage, review review, even decision-making, and follow-up. By transferring initiative and responsibility as early as possible to teachers, it is hoped that teachers will continue to take the initiative to develop themselves (Wong, 2023).

The supervisory principles mentioned above have implications for both the Principal as a supervisor and the teacher. The implications for the Principal as a supervisor include 1) Confidence in the teacher's ability to develop themselves and solve the problems they face, 2) an open and responsive attitude to the opinions of each teacher, 3) Being willing and able to treat teachers as colleagues who need their help (Valentine P, 2019). The implications for teachers include 1) a change in the teacher's attitude as someone who can take the initiative to analyze and develop himself and 2) being open and objective in analyzing himself. In addition, the Principal must pay attention to the supervision techniques used. Supervision techniques are the way that school principals act as supervisors in supervision. Supervision techniques can be grouped into two, namely individual techniques and group techniques. What is meant by individual technique is when supervision is directed individually to a teacher, while group technique is supervision done on a group of teachers. Before supervising, there must be a close relationship between the Principal as a supervisor and the teacher to be guided. Supervision with individual techniques is often done at school (Sendjaya, 2022).

In implementing individual techniques, the Principal carries out supervision through classroom observation, a visit made by the Principal as a supervisor to observe the teacher who is teaching. The goal is to obtain data on something important in the teaching and learning process as a basis for school principals to train teachers. Things that need to be considered during the classroom observation process are the classroom atmosphere, the suitability of the method with the subject matter, mastery of the subject matter, how to motivate students, student development in cognitive, affective, and psychomotor forms, and other aspects related to the learning process (Syaiful S, 2018). In the classroom observation technique, the Principal as a supervisor 1) observes the entire teaching and learning process

in one class meeting, 2) observes teaching and learning activities as a whole, and 3) does not participate in the teaching and learning process. Furthermore, the Principal can discuss with the teacher after the teaching and learning activities are completed, and then the Principal can provide the necessary suggestions.

Suggestions are usually made in formal meetings. This meeting is held at a particular time, attended by the teacher with the Principal as the supervisor, and is typically a follow-up to class observation. These formal meetings aim to improve the teaching and learning process, give teachers a more precise concept of themselves, and increase their capacity to learn independently (Kinicki, 2018). Before the meeting, it is necessary to make good preparations; namely, the data to be discussed is classified and arranged systematically and logically. For the meeting to run smoothly and provide adequate results, the Principal, as a supervisor who in this case acts as the chairman of the meeting, must: 1) be friendly, 2) listen to the conversation thoughtfully and carefully, 3) try to increase the participation of all participants, 4) give suggestions, 5) take notes on plans and suggestions, 6) try to find the cause of the problem clearly, 7) make a summary of ideas, conclusions, and decisions made together. Analyzing the results of the supervision is an activity that needs to be carried out to determine more appropriate coaching steps. Whether the implementation of supervision is by the program, whether it is practical, or if there are obstacles, analyzing the supervision results can be done quantitatively or qualitatively. They use a quantitative method if the data collected is in the form of numbers and qualitative analysis if it is in the form of words. Quantitative analysis, for example, by calculating mode, median, mean, standard deviation, proportional calculation, correlation analysis, regression, and variance analysis. At the same time, qualitative analysis is, for example, case analysis.

The monitoring results in the prepared instruments (additional notes can also be recorded) are grouped according to the aspects agreed upon at the pre-observation stage. As an illustration, the recorded observation stage includes those related to teachers' teaching skills, attitudes in front of the class, explanation of concepts, achievement of goals, use of learning media, and post-observation stages, which include reversal of observation basis and so on, by the agreement between the Principal and the teacher. The grouping of aspects that begin in implementing observation helps determine which aspects have been successful or still need improvement. This can also determine whether classroom observation activities are carried out effectively (according to the target). To further clarify the criteria for the success of the implementation of supervision (program suitability, effectiveness of program implementation, and quality of program implementation), it is necessary to inaugurate with basis for the implementation of supervision, which contains aspects observed by the instrument. In the pre-observation stage, several aspects of classroom observation are planned for improvement. These aspects vary greatly, depending on the outcome of the agreement made by the Principal with the teacher. For example, the elements that are produced through agreement are the concepts that will be discussed in class, the goals that will be achieved in the teaching and learning process, the presentation steps that will be carried out, the use of learning media, the interaction process between teachers and students. Once the aspects to be observed in the observation are inventoried, instruments corresponding to that aspect must be prepared to

move on to the classroom observation stage (implementation of observation). At the stage of implementation of observation (classroom observation), several aspects/components must be analyzed. The classroom observation process is intended to observe and evaluate the implementation of the teaching and learning process, emphasizing the aspects that have been agreed upon at the stage before observation. The emphasis on classroom observation is an effort to improve the teaching and learning process. In this observation, the assessment of the teaching and learning process, based on the instruments developed for academic supervision, the information obtained in class observation, is the clarity of the concepts presented, the level of success in achieving the goals, the success of the presentation, by the agreed steps, the use of teaching and learning aids, the effectiveness of the teacher-student interaction process.

The supervision of school principals at vocational schools in Bogor Regency shows indications that there is a lack of communication and determination of scheduled supervision time; in addition to that, there are several school principals who do not master supervision techniques well, so this causes a less than optimal output from the implementation of supervision shown from the results of teacher performance in academic programs that do not improve (Juni, 2018). The obstacles faced in the implementation of academic supervision are the lack of supervision carried out by the National Education Supervisor, the limited time of the Principal to supervise sociology teachers, the lack of senior/peer teachers to assist the Principal in the implementation of academic supervision and the lack of funds in the RAPBS for the implementation of academic supervision (Kinicki, 2018). Efforts made to overcome obstacles in academic supervision are discussions between school principals/senior teachers and sociology teachers concerned and cooperation between schools and National Education supervisors. Based on an initial survey conducted in October-November 2022 using a questionnaire to supervisors of vocational schools throughout Bogor Regency regarding the implementation of supervision of vocational school principals, it is known that school principals in vocational schools throughout Bogor Regency still have obstacles in terms of supervision effectiveness as shown in the following indicators:

1. 30% of school principals are at least conducting class visits when teachers are teaching.
2. 47% of school principals need to give directions to teachers when making evaluation questions.
3. 47% of school principals need direction for teachers in creating remedial and enrichment programs.
4. 37% of school principals need to help teachers in making PTK.
5. 37% of school principals do not guide teachers who do not teach.
6. 43% of school principals need to provide opportunities for teachers to develop their skills.
7. 27% of principals need more motivation for teachers who are often late.
8. 50% of school principals must pay more attention to pleasant working conditions.
9. 40% of school principals need to provide better teaching examples to teachers.
10. 57% of school principals need to respond better to teachers' ideas.

Many factors affect the effectiveness of principal supervision; factors affect the effectiveness of principal supervision, which in the description can be grouped into internal factors, namely personality and mental attitude in the form of motivation to achieve with encouragement from within each Principal to achieve the best results, emotional intelligence, and intellectual intelligence. They are judging from the influencing external factors, namely serving leadership, organizational climate, and trust. The results of Yenming et al. (2019: 54), titled "Servant Leadership: A Preferred Style of School Leadership in Singapore," found that Servant leadership is a more effective leadership style because it reflects the best use of a leader's strengths through a service style, with the finding that a leader who 'listens' as well as 'empathizes' and 'builds community' (understanding and sharing) is the leadership style expected by followers or members of the Organization. The results of Erin E. Riego de Dios' (2020: 26) research entitled "Supervisory Relationships, Organizational Climate and Employee Satisfaction in Local Community Colleges" resulted in research that there are significant differences in the supervisory and organizational climate when grouped by age, citizenship status, education, employment status, and salary. A significant relationship between supervision and organizational climate. The results of Dwivedula's (2020: 17) research entitled: "The Relationship Between Trust and Supervision in the Case of Project Workers: Implications for Project Management" resulted in the finding that there is a relationship between trust and supervision ($r=0.433$, $q<0.01$), where the better the trust, the better the supervision. The results of a study by Amy Nicole Salvaggio and Benjamin Schneider (2002: 114) entitled "Manager Personality, Manager Service Quality Supervision, Model Test concluded that there was a significant relationship ($\pi=0.49$, $q<0.05$) between personality variables and supervision quality.

Description of findings and novelty of research results that can contribute significantly to the progress of science, primarily related to the theme, efforts to improve the achievement of educational goals. Novelty can be research findings, variable interventions, comprehensive descriptions of new phenomena, recommendations, models, and products. A new synthesis was found about the variables of this study, namely the synthesis of serving leadership, personality, organizational climate, trust, and effectiveness of principal supervision. Efforts were found to improve the effectiveness of principal supervision through serving leadership, personality, organizational climate, and trust individually and together. Strengthening the effectiveness of school principal supervision is carried out by increasing cheerful and dominant factors that affect the effectiveness of supervision. Strategies and efforts to optimize principal oversight are highly dependent on the will and determination of principals. With the initial findings, more in-depth research is needed to uncover and analyze the factors that affect the effectiveness of school principal supervision so that improvements can be made to still not optimal indicators.

The Resource Management Modeling and Optimization Approach (POP-SDM) is the idea of a research approach that begins with a qualitative exploratory research approach, which is then combined with a quantitative descriptive research approach or a quantitative causal approach. Sri Setyaningsih and Soewarto Hardhienata (2019) stated that the basic idea of POP-HR is to develop modeling and optimization of management resources that are the

theme of the research, namely by exploring other variables that have a positive and dominant influence on the variables that are the theme of the study. Efforts to investigate variables that have a positive and dominant influence on the variables that are the theme of the study are carried out with a qualitative exploratory approach to find or build a "theoretical framework," namely a framework of thought, hypothesis, or proposition that becomes a model of the research constellation. Then, the "theoretical framework" is tested through a quantitative (descriptive or causal) research approach.

Competent resource persons in principal supervision are essential to obtaining data supporting variables that have a positive and dominant effect on principal supervision. The results of the qualitative research found variables that had positive and dominant impacts, which could then be arranged in the research constellation using path analysis. The resulting modeling is a mathematical model obtained from substructures arranged in the research constellation (Soewarto H, 2017). The variables obtained in the quasi-qualitative research were analyzed using path analysis so that the value of the strength of the variables was obtained. This provides a logical picture of the variables that have a positive and dominant influence on the effectiveness of supervision of vocational school principals throughout Bogor Regency. Optimizing the effectiveness of primary supervision by using the criteria of Cost, Benefit, Urgency, and Importance is intended to determine the strength of influence between research variables, and based on the weight of each independent variable indicator that has the most significant contribution, the priority order of indicators that need to be improved immediately can be arranged. Indicators in the category that need to be improved immediately are levers to strengthen the effectiveness of supervision of the principals of private vocational schools in Bogor Regency. Several factors are suspected to affect the effectiveness of principal supervision, namely serving leadership, personality, organizational climate, trust, motivation for achievement, innovation, compensation, competence, work discipline, and creativity. It is interesting to learn more about observing and examining the effectiveness of principal supervision, service leadership, personality, organizational climate, and organizational culture.

Research Methods

This study uses a combined research method of Correlation Research and SITOREM Analysis. This combination research methodology utilizes a correlation research flow, which is analyzed using SITOREM analysis. The population in the study is all Vocational School Principals in Bogor Regency out of 355 Vocational Schools in Bogor Regency, so the population in this study is 355 school principals. The sampling technique in this study uses proportional random sampling, which is a method of collecting data by taking a proportional population to be used as a sample.

Data Analysis Techniques: Data processing in this study uses descriptive and inferential analysis techniques with a path analysis approach. In this data analysis, the normality test, homogeneity test, linearity test, and path analysis are discussed in order. Descriptive analysis was conducted to determine the standard deviation price, frequency distribution, frequent

values, averages, median values, and histogram creation of scores obtained from variables. Inferential analysis in this study is used with the aim that the results of the study can be concluded to be generalized based on the testing of the hypothesis that has been formulated. Before the correlation analysis, a hypothesis analysis requirements test was carried out using normality, homogeneity, and regression analysis tests.

Result and Discussion

From the results of the statistical description analysis, it is known that as many as 94 people (49%) are in the range of 124 to 129 out of 153 people are included in the category of having high effectiveness of principal supervision, as many as 52 people (28%) are in the range of 124 to 128 out of 189 people and are included in the category of having medium principal supervision effectiveness, and as many as 43 people (23%) are in the range of 109 to 123 out of 189 people. They are included in the category of having effectiveness and low principal supervision. The above can be seen from the respondents' answers to the variable frequency distribution of the effectiveness of principal supervision, namely the number of percentages In Vocational High Schools throughout Bogor Regency that have the effectiveness of principal supervision; the majority of them have a high commitment to the profession, namely 94 people (49%). It is known that as many as 46 people (24%) are in the range of 149 to 172 out of 189 people are included in the category of having high serving leadership, as many as 44 people (23%) are in the range of 143 to 148 out of 189 people and are included in the category of having moderate servant leadership, and as many as 99 people (53%) are in the range of 119 to 142 out of 189 people. They are included in the category of having low leadership and joined. The above can be seen from the respondents' answers to the frequency distribution of the variable of Servant leadership, namely the number of percentages in vocational schools in Bogor Regency, showing that the leadership of the Principal's servants is included in the low category, which is 53%.

It is known that as many as 115 people (61%) are in the range of 124 to 139 out of 189 people are included in the category of having a strong personality, as many as 33 people (17%) are in the range of 120 to 123 out of 189 people. They are included in the category of medium personality, and as many as 41 people (22%) are 104 to 119 out of 189. They are included in the category of having a low personality. The above can be seen from the respondents' answers about the frequency distribution of personality variables, which is the number of percentage answers in Vocational High Schools in Bogor Regency; it can be said that school personality in Vocational High Schools in Bogor Regency is included in the high category, namely 115 people (61%). It is known that as many as 87 people (46%) are in the range of 134 to 157 out of 189 people are included in the category of having a high organizational climate, as many as 44 people (23%) are in the range of 128 to 133 out of 189 people and are included in the category of having a moderate organizational climate, and as many as 78 people (41%) are in the range of 104 to 127 out of 189 people and are included in the category of having a low organizational climate. The above can be seen from the respondents' answers to the distribution of the frequency of organizational climate variables, which is the number of percentages in Vocational High Schools in Bogor Regency that the organizational climate in

Vocational High Schools in Bogor Regency which has a high organizational climate is 87 people (46%). From the results of the processing and calculation of research data, it is known that the hypotheses proposed in this study are all accepted, where the relationship between the research variables both partially and simultaneously is positive and very significant.

The Direct Influence of Servant Leadership on the Effectiveness of Principal Supervision

Based on the regression model calculation results, the value β , the variable of the Servant leader, is 0.245, which means that the value is > 0 . Based on this value, serving leadership has a direct positive effect on the effectiveness of principal supervision by 0.245 or 24.5%. Based on the p-value of 0.001, which means < 0.05 , the conclusion is that H_0 is rejected and H_1 is accepted. Thus, there is a direct positive and significant influence between the Servant leadership variables and the effectiveness of principal supervision. The t-test result was obtained as a count of 3.494, and the table was known to be 1.973, where the table value was obtained at a significance level of 0.05 with $df=n-1-1=189-1-1=187$ (n is the sample and k are the number of independent variables). The conclusion that can be concluded is that the $t_{count} > t_{table}$ ($3,494 > 1,973$) means that H_1 is accepted and H_0 is rejected; in other words, there is a direct positive and significant influence of serving leadership on the effectiveness of principal supervision. Research by Asep Mulyana (Asep Mulyana, 2021) on 226 private vocational school teachers in Bogor City concluded that there was a very significant positive relationship between Servant leadership and Commitment to the Profession ($r_y=0.437$, $q < 0.01$). Based on the results of the study, it can be concluded that there is a positive relationship between Servant leadership and Commitment to the Profession, with a correlation coefficient of 0.437. There was a positive relationship between Empowerment and Commitment to the Profession, with a correlation coefficient of 0.289.

In this case, understanding the concept of knowledge and information gives rise to various interpretations. Experts in the field of information say that information is knowledge presented to a person in an understandable form or data that has been processed or arranged to present facts that contain meaning. Meanwhile, knowledge comes from relevant information absorbed and put into a person's mind. Knowledge is related to what a person knows and understands. Information tends to be accurate, while knowledge is interpreted and integrated information. Teachers can increase the effectiveness of principal supervision by assembling activities used in schools to identify, create, explain, and distribute knowledge (knowledge transfer) to be reused, known, and learned in schools. These activities directly relate to libraries and aim to achieve specific results, such as shared knowledge, improved performance, competitive advantage, or higher innovation. Meanwhile, knowledge transfer is one aspect of Servant leadership in various forms.

The Direct Influence of Personality on the Effectiveness of Primary Supervision

Based on the regression model calculation results, the value of the β personality variable was obtained at 0.263, which means that the value is > 0 . Based on this value, personality has a direct positive effect on the effectiveness of principal supervision of 0.263 or 26.3%. Based

on the p-value of 0.004, which means < 0.05 , the conclusion is that H_0 is rejected and H_1 is accepted. Thus, personality variables have a direct positive and significant influence on the effectiveness of principal supervision. The t-test result was obtained as 3.892, and the ttable was known to be 1.973, where the ttable value was obtained at a significance level of 0.05. The conclusion that can be concluded is that the thical>ttable (3,892>1,973) means that H_1 is accepted and H_0 is rejected; in other words, there is a positive and significant personality influence directly on the effectiveness of principal supervision. The findings obtained in the study through the two stages show that personality is strengthened to increase the effectiveness of school principal supervision.

Direct Influence of Organizational Climate on the Effectiveness of Principal Supervision

Based on the regression model calculation results, the β value of the organizational climate variable is 0.235, which means that the value is >0 . Based on this value, the organizational climate has a direct positive effect on the effectiveness of principal supervision by 0.235 or 23.5%. Based on the p-value of 0.001, which means < 0.05 , the conclusion is that H_0 is rejected and H_1 is accepted. Thus, there is a direct positive and significant influence between organizational climate variables on the effectiveness of principal supervision. The t-test results were obtained as a count of 3.299, and the table was known to be 1.973, where the table value was obtained at a significance level of 0.05. The drawable conclusion is that $t_{cal}>t_{table}$ (3,299>1,973) means that H_1 is accepted and H_0 is rejected; in other words, the organizational climate has a direct positive and significant influence on the effectiveness of principal supervision. Innovative organizational climate behavior is a deliberate attempt to generate new ideas that are more profitable and beneficial to individuals and groups. Creative behavior is an individual's activity to introduce a valuable new concept related to a process, product, or procedure.

Innovative behavior can also be interpreted as a form of change, both slowly and radically. Individual involvement in a company or Organization is closely related to creative behavior. This is because every process of innovation behavior requires actions taken by teachers. Teachers are an internal factor that plays a vital role in innovative school behavior. A creative organizational climate emerges from teachers as a solution to the problems faced by the school. The new emerging ideas are expected to bring positive changes so the school can survive its various issues. The changes that occur are not spared from the role of human resources. Human resources need the drive to make changes to play an optimal role. Human resources in organizations need good organizational climate capital to develop ideas that lead to change for the better. Organizational climate capital can sustainably encourage individuals to become excellent teachers in the competition.

The Direct Influence of Servant Leadership on the Organizational Climate

Based on the regression model calculation results, the value β the Servant leadership variable is 0.186, meaning the value is >0 . Based on this value, serving leadership directly affects the organizational climate of 0.186 or 18.6%. Based on the p-value of 0.009, which means < 0.05 , the conclusion is that H_0 is rejected and H_1 is accepted. Thus, the Servant

leadership variables directly and significantly influence the organizational climate. The t-test results were obtained as 2.623 and 1.973, respectively, where the table value was obtained at a significance level of 0.05. The drawable conclusion is that $t_{cal} > t_{table}$ ($2,623 > 1,973$) means that H1 is accepted and H0 is rejected; in other words, stewardship leadership positively and significantly influences the organizational climate.

Transformational leadership inspires followers to put aside their interests and encourages them to develop their leadership capacity to achieve higher organizational goals. With dimensions such as 1) Idealized Influence (charisma), the leader functions to be seen as charismatic by his followers and will provide a vision and mission, create a sense of pride, and gain respect and trust from subordinates. The charisma of a leader will make followers have a deep faith in their leader, feel proud to work with their leader, and believe in the leader's capacity to overcome every problem. 2) Inspirational motivation means that the serving leader will be able to communicate high expectations and share a shared vision by using symbols to focus the efforts of subordinates and inspire subordinates to achieve goals that result in significant progress for the Organization. 3) Intellectual Stimulation (intellectual stimulation) Leaders function to appreciate subordinates' ideas, develop rationality, and perform careful problem-solving. The chief minister encouraged his followers to rethink their old ways of doing things to change their past with their ideas and thoughts. They are also encouraged to develop rationality and consider creative and innovative ways to build themselves; 4) Inseparable consideration (individual concern) Serving leaders will provide personal attention, respect individual differences, and provide advice and direction. Service leaders treat their followers differently but in a balanced way to maintain open relationships and communication with their followers. Leaders treat each subordinate as an individual, accompany them, and monitor and grow opportunities.

Direct Influence of Personality on Organizational Climate

Based on the regression model calculation results, the value of the β personality variable is 0.225, which means the value is >0 . Based on this value, personality directly affects the organizational climate by 0.225 or 22.5%. Based on the p-value of 0.002, which means <0.05 , the conclusion is that H0 is rejected and H1 is accepted. Thus, personality variables have a direct positive and significant influence on the organizational climate. The t-test result was obtained as 3.174, and the ttable was known to be 1.973, where the ttable value was obtained at a significance level of 0.05. The drawable conclusion is that $t_{cal} > t_{table}$ ($3,174 > 1,973$) means that H1 is accepted and H0 is rejected; in other words, there is a positive and significant personality influence directly on the organizational climate. Personality is a person's perception of the meaning of values, beliefs, attitudes, systems, and norms from basic assumptions that can influence and reflect its members in determining the direction and goals of an organization. Which is measured using a questionnaire instrument based on indicators 1) Discipline and apparent obedience of organizational members, 2) Norms and standards of behavior in work, 3) Dominant values that are understood together, 4) Regulations that serve as guidelines for members, and 5) Organizational atmosphere.

The organizational climate is an intense desire for teachers to work and work for the achievement of success related to a set of standards. The organizational environment in this study was measured using a questionnaire instrument prepared based on indicators: which was measured using a questionnaire instrument based on indicators: 1) The need for challenging achievements; 2) Having a systematic and feasible work plan; 3) Utilizing feedback for performance improvement; 4) Realistic goals must be achieved, and 5) Have a high level of responsibility. Teachers who feel treated relatively by school management will feel valued; this can encourage them to do everything better and be more enthusiastic about carrying out the responsibilities demanded by the school. The fair treatment from the school that the teacher feels will make him feel comfortable expressing himself, encouraging him to dare to innovate and take risks because even if there are mistakes, he believes that the school management will be fair for his actions. Teachers who feel they have full support from their superiors will make them more eager to excel in competitions. Teachers who feel that the working conditions at school are adequate will be more enthusiastic about making various breakthroughs. They feel comfortable doing new things even though they have to take risks.

The Indirect Influence of Servant Leadership on the Effectiveness of Principal Supervision Through Organizational Climate

Based on the calculation results above, the value of the indirect influence of the Servant leader variable on the effectiveness of principal supervision through the organizational climate was obtained at 0.044 or 4.4%, meaning that the Servant leader had an indirect positive influence on the effectiveness of principal supervision through the organizational environment. Thus, H₀ is rejected, and H₁ is accepted. Transformational leadership is an act of leadership that can be an ideal and charismatic role model in providing inspiration, motivation and empathy for the success of its followers in achieving goals; the indicators are dimensions such as 1) Idealized Influence (charisma), with indicators a) Leaders who serve are seen as charismatic by their followers; b) Providing a vision and mission; c) Arouse a sense of pride, as well as gain respect and trust from subordinates, and d) trust in the capacity of their leaders to overcome every problem. 2) Inspirational motivation, with indicators: a) Leaders who serve will be able to communicate high expectations; b) excitingly convey the shared vision by using symbols to focus the efforts of subordinates; and c) Inspire subordinates to achieve goals that result in significant progress for the Organization. 3) Intellectual Stimulation (intellectual stimulation) with the indicators a) Appreciating the ideas of subordinates, b) Developing rationality, and c) Solving problems carefully. 4) Dual-utilized consideration (individual attention) with the indicators a) Giving personal attention, b) Respecting individual differences, and c) Providing advice and direction.

Personality is self-attachment in identifying oneself, loyalty, and attitude to be willing to exert all efforts in carrying out the profession by instilling values, norms, and goals. Supervision is divided into three dimensions: 1) Affective Supervision Dimension, which is an emotional attachment to the profession in which individuals identify themselves and enjoy their membership in the profession consisting of a) Identification of the profession; b) Developing oneself in the profession, and c) Participation in professional activities; 2). The

Normative Supervision dimension, namely loyalty to the profession because it feels obligated (responsible) to continue to work, consists of a) loyalty for moral reasons, b) feeling obliged to contribute and be responsible for the profession); and 3). The Continuous Supervision dimension, which is the attachment to the profession built by the individual by considering the costs and benefits associated with the continuation of the profession, consists of a) a greater sense of loss when leaving the profession, b) the allocation of investment in the profession). The organizational climate is an intense desire for teachers to work and work for the achievement of success related to a set of standards. The organizational environment in this study was measured using a questionnaire instrument prepared based on indicators: which was measured using a questionnaire instrument based on indicators: 1) The need for challenging achievements; 2) Having a systematic and feasible work plan; 3) Utilizing feedback for performance improvement; 4) Realistic goals must be achieved, and 5) Have a high level of responsibility.

A principal who always strives to encourage his teachers to improve their abilities will promote the teacher's energy to be directed to achieve higher daily achievements. A school principal who constantly challenges the teacher's thinking and intelligence will make the teacher feel challenged so that he wants to show his ability even more. This improvement in ability will make teachers feel proud of their profession. This increase in proficiency will help him earn a higher income, so he thinks he is getting material benefits from his work and does not want to leave his current profession. Principals who consistently demonstrate a commitment to advancing the school and teachers will motivate teachers to support the school's programs to make significant progress. This will encourage him to continue to improve his work performance beyond the standard. This, in turn, will bring pride in achievements in their work so that teachers feel proud of their profession and do not want to leave it. The Principal who gives an example of how to achieve the ideal state will encourage the teacher's spirit to imitate him, find the best way to reach achievements, and make the teacher take the initiative to ask for feedback on their achievement so that there is a significant increase in proficiency in the teacher. This makes them feel proud and increasingly want to be involved in various programs to improve professionalism, ultimately making teachers feel capable of carrying out their profession and more attached to it.

The Influence of Indirect Personality on the Effectiveness of Principal Supervision Through Organizational Climate

Based on the results of the calculation above, the value of the indirect influence of personality variables on the effectiveness of supervision of principals through organizational climate was obtained at 0.053 or 5.3%, meaning that there was an indirect positive influence of personality on the effectiveness of supervision of principals through organizational climate. Thus, H₀ is rejected, and H₁ is accepted. Personality is a person's perception of the meaning of values, beliefs, attitudes, systems, and norms from basic assumptions that can influence and reflect its members in determining the direction and goals of an organization. Which is measured using a questionnaire instrument based on indicators 1) Discipline and apparent

obedience of organizational members, 2) Norms and standards of behavior in work, 3) Dominant values that are understood together, 4) Regulations that serve as guidelines for members, and 5) Organizational atmosphere.

Supervision is self-attachment in self-identification, loyalty, and attitude, as well as a willingness to exert all efforts in carrying out the profession by instilling values, norms, and goals. Supervision is divided into three dimensions: 1) Affective Supervision Dimension, which is an emotional attachment to the profession in which individuals identify themselves and enjoy their membership in the profession consisting of a) Identification of the profession; b) Developing oneself in the profession, and c) Participation in professional activities; 2). The Normative Supervision dimension, namely loyalty to the profession because it feels obligated (responsible) to continue to work, consists of a) loyalty for moral reasons, b) feeling obliged to contribute and be responsible for the profession); and 3). The Continuous Supervision dimension, which is the attachment to the profession built by the individual by considering the costs and benefits associated with the continuation of the profession, consists of a) a greater sense of loss when leaving the profession, b) the allocation of investment in the profession).

The organizational climate is an intense desire for teachers to work and work for the achievement of success related to a set of standards. The organizational environment in this study was measured using a questionnaire instrument prepared based on indicators: which was measured using a questionnaire instrument based on indicators: 1) The need for challenging achievements; 2) Having a systematic and feasible work plan; 3) Utilizing feedback for performance improvement; 4) Realistic goals must be achieved, and 5) Have a high level of responsibility. A principal who always strives to encourage his teachers to improve their abilities will promote the teacher's energy to be directed to achieve higher daily achievements. A school principal who constantly challenges the teacher's thinking and intelligence will make the teacher feel challenged so that he wants to show his ability even more. This improvement in ability will make teachers feel proud of their profession. This increase in proficiency will help him earn a higher income, so he thinks he is getting material benefits from his work and does not want to leave his current profession.

Principals who consistently demonstrate a commitment to advancing the school and teachers will motivate teachers to support the school's programs to make significant progress. This will encourage him to continue to improve his work performance beyond the standard. This, in turn, will bring pride in achievements in their work so that teachers feel proud of their profession and do not want to leave it. The Principal who gives an example of how to achieve the ideal state will encourage the teacher's spirit to imitate it, find the best way to reach achievements and make the teacher take the initiative to ask for feedback on their achievement so that there is a significant improvement in the teacher's proficiency. This makes them feel proud and increasingly want to be involved in various programs to improve professionalism, ultimately making teachers feel capable of carrying out their profession and more attached to it.

The indirect influence of leadership and Servant personality on the effectiveness of principal supervision through organizational culture.

It can be seen that the value of the correlation coefficient is the root of the Determination Coefficient of 0.389, which is 0.624. Thus, the correlation coefficient (r_{y12}) of the influence between Servant leadership and personality on the effectiveness of the supervision of the Principal through organizational culture is 0.624, which means that the impact is positive. The correlation coefficient value of 0.624 is included in the strong category. The contribution of leadership and Servant personality to the supervision of the Principal is known to be $0.389 \times 100\% = 38.9\%$, and other factors influence the remaining 61.1%. Thus, there is a positive influence on the medium category between Servant leadership and personality on the effectiveness of supervision of school principals through organizational culture.

The indirect influence of Servant leadership and organizational climate on the effectiveness of principal supervision through organizational culture.

The result R , as in the output table above, is 0.421, so it can be known that the value of the correlation coefficient is the root of the Determination Coefficient of 0.421, which is 0.649. Thus, it can be said that the correlation coefficient (r_{y13}) of the influence between Servant leadership and organizational climate together on the effectiveness of principal supervision through organizational culture is 0.649, which means the impact is positive. Guided by the interpretation of the correlation coefficient, the influence between Servant leadership and organizational climate on the effectiveness of principal supervision through organizational culture falls into the category of solid correlation. Thus, it can be concluded that there is a positive influence on the solid category between Servant leadership and personality on the effectiveness of principal supervision through organizational culture.

The indirect influence of personality and organizational climate on the effectiveness of principal supervision through organizational culture.

It is known that the value of the correlation coefficient is the root of the Determination Coefficient of 0.388, which is 0.581. Thus, it can be said that the correlation coefficient (r_{y23}) of the influence between Personality and Organizational Climate simultaneously on the effectiveness of principal supervision through organizational culture is 0.581, which means the impact is positive. Guided by the interpretation of the correlation coefficient, the influence of personality and organizational climate on the effectiveness of principal supervision through organizational culture is included in the intermediate category of correlation. Thus, it can be concluded that there is a positive influence on the media category between Personality and Organizational Climate simultaneously on the effectiveness of principal supervision through organizational culture.

The indirect influence of Servant leadership, personality, and organizational climate on the effectiveness of principal supervision through organizational culture.

The result of R, as in the output table above, is 0.425, so it can be known that the value of the correlation coefficient is the root of the Determination Coefficient of 0.425, which is 0.652. Thus, it can be said that the correlation coefficient (r_{y123}) of the influence between Servant Leadership, Personality, and Organizational Climate together on the effectiveness of principal supervision through organizational culture is 0.652, which means that the impact is positive. Guided by the correlation coefficient interpretation, the influence of Servant Leadership, Personality, and Organizational Climate on the effectiveness of principal supervision through organizational culture is included in a strong category correlation. Thus, it can be concluded that the strong categories of Servant leadership, personality, and organizational climate positively influence the effectiveness of principal supervision through organizational culture.

The direct influence of Servant leadership, personality, organizational climate, and organizational culture on the effectiveness of principal supervision.

The influence of steward leadership, organizational climate personality, and organizational culture on the effectiveness of principal supervision falls under a strong category correlation. Thus, it can be concluded that principal supervision positively influences the effectiveness of solid categories of Servant leadership, organizational climate personality, and organizational culture. Serving leadership is the behavior of leaders who prioritize service to members so that the people they serve can grow, be healthy, and be independent (Autonomous Leadership service indicators are: a. Stewardship (serving and encouraging members to serve others), b. Conceptualization (a thorough and deep understanding of a condition used to make decisions), c. Healing (based on empathy to relieve turbulent emotions), d. Empowering and Developing other individuals, e. Building a community (collaborating to contribute positively to society); f. Humility (humility, who you are, integrity, openness); g. Foresight (the rigor of understanding the past, the current reality, and the possible consequences of decisions for the future). Personality is a characteristic in the individual that is relatively passive and persistent, influences the individual's self-adaptation to the environment, and distinguishes the individual from others. With the following dimensions: 1) Extraversion. Tends to be friendly, assertive, and pleasant; 2) Fun—the tendency to submit to others, charming, warm, and trustworthy; 3) Accuracy. Be careful, responsible, organized, reliable, and persistent; 4) Emotional stability. Able to withstand stress, have positive emotional stability, and be calm, confident, and secure; 5) Openness to experience. Very open, creative, curious, and artistically sensitive.

Organizational climate is the state of the Organization regarding the policies and physical and non-physical environment that affect the attitudes and behaviors of the members of the Organization. The organizational climate indicators are a. Physical environment (condition of workspaces, equipment, facilities), b. Non-physical environment (cohesiveness, warmth, leadership, trust) c. Work standards and policies (clarity, standard level, reward system), d. workmechanisms (autonomy, pressure, supervision, communication). Organizational culture is a belief in essential values and norms in a school, which guides the behavior of school residents. Indicators that can measure organizational culture are a) Behavioral

Dimension and Work Results, b) Methods, Arts, and Technology in Work, c) Real Behavior Patterns, d) Value Dimensions, e) Values from the Environment, f) Norms agreed upon by members, g) Basic Consumption Pattern Dimensions, h) Relationship with the environment, i) Views on humanity, and j) Relationships between individuals. Supervision effectiveness is a measure to determine the extent of the success of the leader's actions in providing direction and guidance to subordinates in carrying out their duties to achieve the goals that have been set with the indicators 1) Leadership; b) Assistance; c) Training; d) Motivation; e) Providing a sense of security, and f) Implementation of cooperation.

Conclusion

This study concludes that the effectiveness of principal supervision in vocational high schools in Bogor Regency can be enhanced by strengthening variables such as Servant leadership, principal personality, and organizational climate. The findings indicate that these three variables have a positive and significant influence, both directly and indirectly, on the effectiveness of principal supervision. Servant leadership applied by principals can create a conducive organizational climate, which in turn improves the effectiveness of supervision. A robust principal personality also fosters an organizational environment supporting the supervision process. Therefore, to enhance the quality of supervision and educational performance, principals and related parties must focus on developing Servant leadership, enhancing personality, and creating a positive organizational climate.

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