



Availability of Infrastructure Facilities and Teacher Competence on the Sustainability of the Implementation of the State Vocational School Learning Process in Palembang City

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Abstract. *This research aims to analyze the influence of the availability of infrastructure and teacher competence on the sustainability of the implementation of the learning process at State Vocational Schools in Palembang City. The availability of adequate infrastructure and high teacher competency is believed to have an important role in improving the quality of learning and the effectiveness of the teaching and learning process in schools. The method used in this research is a quantitative approach with survey techniques, involving a sample of teachers and school principals from several state vocational schools in Palembang City. Data was collected through a questionnaire which was processed using regression analysis to test the relationship between the two independent variables and the continuity of learning. The research results show that both the availability of infrastructure and teacher competence have a significant effect on the smoothness and success of the learning process at State Vocational Schools in Palembang City. Thus, efforts to improve infrastructure and increase teacher competency are important factors in improving the quality of education at the vocational school level.*

Keywords: *Availability Of Infrastructure, Teacher Competency, Continuity Of Learning, State Vocational School, City.*

1. BACKGROUND

Education is one of the driving forces for development and a very important provision in facing changes and developments of the times. Education or teaching process is manifested in the teaching and learning process. The teaching and learning process is essentially a communication process, namely the process of delivering a message from a message source through a certain channel/facility to the recipient of the message. The message to be communicated is the content of the teachings or learning materials in the curriculum, the source of the message can be the teacher and the recipient of the message is the student (Danim, 2019)

The educational goals of an educational institution depend on the effectiveness of education and the results or outputs are determined by several factors such as students, educators, curriculum, facilities (facilities and infrastructure), and the environment (Daryanto, 2017).

In relation to the world of education, learning facilities can be positioned as part of supporting the success of students, which is called learning achievement. The success of the implementation of learning in schools must be evaluated thoroughly, among other things, by evaluating the quality of the learning process and outcomes. Overall, the understanding of the basic concepts of learning will not be perfect if it stops at the definition or process. Basically,

the learning process is characterized by changes in overall behavior, both related to cognitive, affective, and psychomotor aspects (Hernawan, 2022).

Related to the description above, that the goal of education in achieving success, one of the supports is infrastructure. It is explained in Permendikbudristek Number 22 of 2023 concerning Standards of Facilities and Infrastructure in Early Childhood Education, Primary Education Levels, and Secondary Education Levels, it is explained that the standards of facilities and infrastructure are the minimum criteria that must be available to educational units in the implementation of education. In the Permendikbudristek, it is clearly stated that the implementation of the learning process carried out in schools must have the availability of infrastructure facilities provided by the government directly, as well as the availability of infrastructure facilities that must be provided by the school itself, which includes: 1) Each educational unit must have facilities that include furniture, educational equipment, educational media, books, and other learning resources, consumables, as well as other equipment needed to support an orderly and flexible learning process; 2). Each educational unit must have infrastructure that includes land, classrooms, education unit leadership rooms, educator rooms, administrative rooms, library rooms, laboratory rooms, workshop rooms, production unit rooms, canteen rooms, power and service installations, sports places, places of worship, places of worship, places of creation, and other spaces or places necessary to support an orderly and sustainable learning process.

2. THEORETICAL STUDIES

Hernawan (2022) explained that the term learning is "a set of events embedded in purposeful activities that facilitate learning". Learning is a series of activities that are deliberately created with the intention of facilitating the learning process. Trianto (2022) learning is the development and delivery of information and activities that are created to facilitate the achievement of specific goals. Furthermore, Rusman (2022), interprets the term learning as an activity or activity that is focused on learning conditions and interests (learner-centered). The term learning is used to replace the term "teaching" which is more of a teacher-centered activity. Therefore, teaching activities need to be distinguished from learning activities.

Learning is a process that is deliberately designed to create learning activities in individuals. In other words, learning is external and deliberately designed to support the internal learning process in individuals. Sanjaya (2022) explained that learning is learning

students using educational principles and learning theories which are the main determinants of educational success. Learning is a two-way communication process, teaching is carried out by the teacher as the educator, and learning is the student.

Based on the Regulation of the Ministry of Education and Culture of the Republic of Indonesia Number 56 of 2022, concerning Guidelines for the Implementation of the Curriculum in the Context of Learning Recovery, it is explained that the change in the curriculum of SMK/MAK begins with a rearrangement of the Spectrum of Expertise of SMK/MAK. The Expertise Spectrum is a list of vocational vocational skill fields and programs that are compiled based on the needs of the world of work which includes: the business world, the industrial world, state-owned enterprises/regional-owned enterprises, government agencies or other institutions as well as the development of science, technology, art and culture. The Expertise Spectrum of SMK/MAK is a reference for the preparation of curriculum structure as well as the opening and implementation of expertise fields and programs at vocational schools. Each expertise program consists of a minimum of 1 (one) concentration of expertise. The concentration of expertise is held in a 3 (three) year program or a 4 (four) year program which is further regulated in the decision of the leader of the main unit in charge of curriculum, assessment, and books.

According to Mudjiono, (2015), it is defined as an activity aimed at learning students. Meanwhile, Siregar (2020), defines learning as planned efforts in students. Furthermore, Aunurrahman (2022) defines that the success of the learning process is inseparable from the ability of teachers to develop learning models that are oriented towards increasing the intensity of student involvement effectively in the learning process.

Teachers must be good at using the art of communicating empathy, patience, and diligence in solving problems experienced by students. Teachers must also be good at directing students to be able to find their problems and find solutions. A teacher is a leader. The teacher is no different from a building architect who is able to shape the soul and character of his students according to his wishes. Teachers have the obligation to shape and build the personality of students to become a useful person for family, religion, nation and nation. Teachers are tasked with preparing morally capable and competent human beings in facing global competition and the demands of the modern world (the demands of science), related to efforts to build themselves, build their religion, and build the nation and state to be more advanced (Zahroh, 2019).

3. RESEARCH METHODS

Suryabrata (2019) stated that research is a process, namely a series of steps that are carried out in a planned and systematic manner in order to get a solution to a problem or get answers to certain questions. Arikunto (2019) research method is a scientific way to obtain data that has special characteristics of rational, empirical and systematic.

Sugiyono (2019) stated that quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to research on certain populations and samples. This research is called quantitative research with an ex post facto approach. Sugiyono (2018, p:319) explained that research was conducted after an incident occurred. Ex post facto research aims to find the causes that allow changes in behavior, symptoms or phenomena caused by an event, behavior, symptoms or phenomena caused, by an event, behavior or things that cause changes in the independent variable as a whole have occurred.

4. RESULTS AND DISCUSSION

Based on the results of the teacher competency questionnaire test that was distributed to teachers outside the research sample, a total of 30 statements were obtained, the results of > 0.312 with a significance level of 5%, and > 0.403 with a significance level of 1% and the questionnaires tested were all valid, so that they could be included in the next research (data on the results of the experiment are attached).

Based on the results of the test of the continuity of the learning implementation process distributed to teachers outside the research sample, a total of 30 statements were obtained with a result of > 0.312 with a significance level of 5%, and > 0.403 with a significance level of 1% and the questionnaire tested were all valid, so that they could be included in the next research (data on the results of the experiment attached).

Based on the results of the calculation of the reliability of the questionnaire instrument on the availability of infrastructure, teacher competence, and the continuity of the learning implementation process, it is known that the results of the calculation of the reliability of the questionnaire instrument on the availability of infrastructure facilities obtained a value of $0.877 > 0.6$, the results of the calculation of the teacher competency questionnaire instrument obtained a value of $0.846 > 0.6$, and the results of the calculation of the questionnaire instrument for the sustainability of the learning implementation process obtained a value of $0.869 > 0.6$. Thus, it can be stated that all variables have a Cronbach's Alpha coefficient > 0.6

so that it can be said that all the measurement concepts of each variable from the questionnaire tested are reliable which means that the questionnaire instrument distributed and used in this study is a questionnaire that is suitable to continue the research

Based on the results of data analysis through the dissemination of questionnaire instruments, namely: 1) Questionnaire instrument Availability of infrastructure facilities with a total of 30 statements; 2) Teacher competency questionnaire instrument with a total of 30 statements, and: 3) Questionnaire instrument for the continuity of the learning implementation process with a total of 30 statements, which was obtained from the answers of teachers who chose each statement: 1) Strongly Agree (SS), 2) Agree (S), 3) Hesitation (RR), 4) Disagree (TS), 5) Strongly Disagree (STS) (Sugiyono, 2018) on each of the questionnaire variables given to the sample teachers in this study with The number of samples was 156 teachers of State Vocational Schools in Palembang City, analyzed using the SPSS For Windows Version 26 Software application.

Normality Test Table 1
One-Sample Kolmogorov-Smirnov Test

		INFRASTRUC TURE	COMPETENC E GURU	PROCESS IMPLEMENTATION LEARNING
N		156	156	156
Normal	Mean	3.4818	3.5561	3.3682
Parameters ^{a,b}	Std. Deviation	.36351	.29161	.29550
Most Extreme Differences	Absolute	.141	.105	.085
	Positive	.141	.105	.055
	Negative	-.068	-.091	-.085
Kolmogorov-Smirnov Z		.935	.694	.564
Asymp. Sig. (2-tailed)		.346	.722	.909

a. Test distribution is Normal.

b. Calculated from data.

Based on the results seen in the table above, it is known that the effect of the availability of infrastructure facilities on the sustainability of the learning process of State Vocational Schools in Palembang City is declared to be normally distributed. This is evidenced by the Asymp value. Sig (2 tailed) using the SPSS Version 26 Software application obtained $0.346 > 0.05$. The influence of teacher competence on the sustainability of the learning process of State Vocational Schools in Palembang City was declared to be normally distributed. This is proven by Asymp. Sig (2 tailed) using the SPSS Version 26 Software application with a score of 0.722

> 0.05 . Likewise, the influence of the availability of infrastructure facilities and teacher competence simultaneously on the sustainability of the learning process of State Vocational Schools in Palembang City, is declared to be normally distributed and meets the requirements of the normality test. This is proven by Asymp. Sig (2 tailed) using the SPSS Version 26 Software application with a score of $0.909 > 0.05$. In terms of histogram, the researcher describes it as follows.

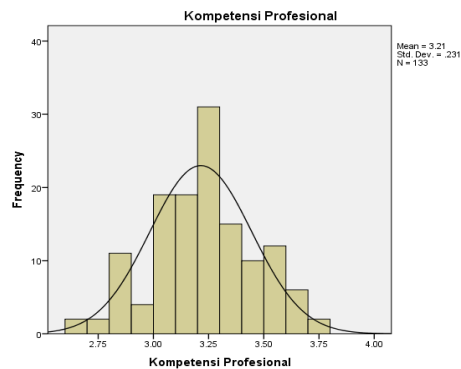


Image 1 Graph Image of Infrastructure Availability

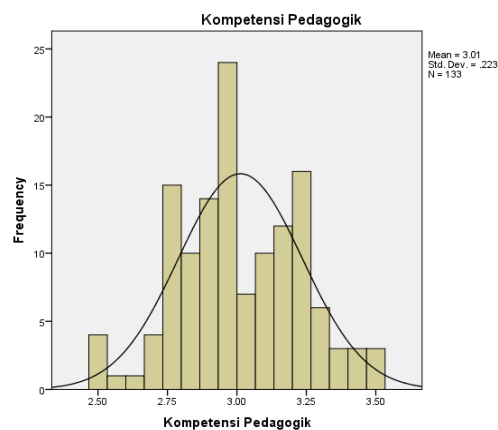


Image 2 Teacher Competency Graph Image

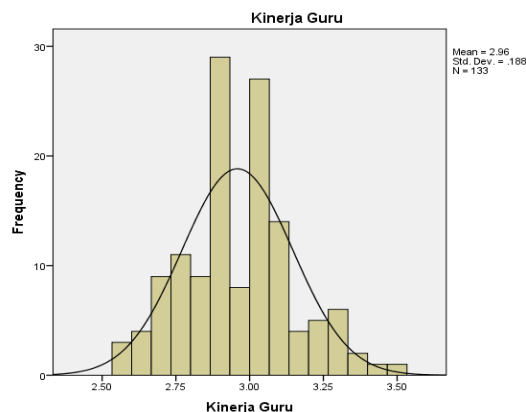


Image 3 Graph Image of the Implementation of the Learning Process

5. DISCUSSION

Based on the results of the research on the influence of the availability of infrastructure facilities and teacher competence on the sustainability of the implementation of the learning process of State Vocational Schools in the city of Palembang and the hypotheses proposed in this study are: 1) The availability of infrastructure facilities has an influence on the sustainability of the implementation of the learning process of State Vocational Schools in the city of Palembang; 2) Teacher competence has an influence on the sustainability of the implementation of the learning process of State Vocational Schools in Palembang City; 3) The availability of infrastructure facilities and teacher competence simultaneously influences the sustainability of the implementation of the learning process of State Vocational Schools in Palembang City.

Based on the results of the research analysis consisting of 3 (three) hypothetical proposals, it is stated that the truth is proven that: 1) The availability of infrastructure facilities has a significant influence on the sustainability of the implementation of State Vocational School learning in Palembang City; 2) Teacher competence has a significant influence on the sustainability of the implementation of State Vocational School learning in Palembang City; 3) The availability of infrastructure facilities and teacher competencies simultaneously have a significant influence on the sustainability of the implementation of the learning process of State Vocational Schools in Palembang City

Based on a simultaneous hypothesis test, where the F_{cal} value is known to be 6.207. The criteria for hypothesis testing are if $F_{cal} > F_{table}$ then H_1 is accepted, and if on the contrary $F_{cal} < F_{table}$ then H_0 is rejected. Based on the F_{table} at the real level α (0.05) with the numerator db 2 (determined from the number of free variables and the denominator db 154 (determined from many samples minus the free variable minus one) or can be determined through the Excell program application on a blank cell type the formula = FINV(0.05,6,207) obtained a number of 0.873 (Prayitno, 2018). Based on the explanation above, it is known that $F_{count} = 6.207$ and $F_{table} 0.873$ where $F_{calung} > F_{table}$ which means H_1 is accepted or it can be said that the availability of infrastructure facilities and teacher competence simultaneously exerts a significant influence on the continuity of the implementation of the learning process of State Vocational Schools in Palembang City.

Regarding the availability of infrastructure, without the support of the competencies possessed by teachers, of course the results obtained will not be in accordance with expectations. As explained by Zahro (2019), educators are professionals who are in charge,

planning and implementing the learning process, assessing the results of the learning process, conducting guidance and training, as well as conducting research and community service, especially for educators in higher education. Rachman (2021) stated that a teacher is required to have the following abilities: a) insightful; b) have exemplary attitudes and behaviors; and c) have skills in accordance with their field of knowledge. Still according to Rachman (2021) as a teacher who has a role as a teacher, must have 4 (four) criteria, which are as follows. a) The Role of Teachers as Demonstrators; b) The role of teachers as class managers; c) The Role of Teachers as Mediators and Facilitators; d) The Role of Teachers as Evaluators.

6. CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the results of the research and the hypothesis proposed in this study, it can be concluded as follows.

1. The availability of infrastructure facilities has a significant influence on the sustainability of the implementation of the learning process of State Vocational Schools in Palembang City
2. Teacher competence has a significant influence on the sustainability of the implementation of the State Vocational School learning process in Palembang City.
3. The availability of infrastructure facilities and teacher competence has a significant influence on the sustainability of the implementation of the learning process of State Vocational Schools in Palembang City.

Suggestion

Based on the description of the conclusion above, the researcher provides input in the form of the following suggestions.

1. For school principals, they should always hold regular meetings on a scheduled basis and provide guidance for teachers to take advantage of the existing infrastructure facilities in schools so that the teacher's competence becomes even better in carrying out the learning process.
2. For teachers, they should always work with full responsibility, in order to show even better competence and take advantage of the availability of infrastructure facilities in schools.
3. For the Education Office, especially the South Sumatra Provincial Education Office, should provide guidance and supervision attached to schools in the Regency-City, especially the

availability of infrastructure facilities that have not been met, so that the need for the continuity of learning implementation can run effectively.

REFERENCE LIST

- Ahmadi, A. (2019). *The dimension of teachers in learning*. Jakarta: PT Rineka Cipta.
- Alhusaini, A., Kristiawan, M., & Eddy, S. (2020). The influence of work motivation and work discipline on teacher performance. *Tambusai Education Journal*, 4(3), 2166–2172.
- Alpian, Harapan, E., & Kesumawati, N. (2020). The influence of academic supervision and teaching administration completeness on teacher teaching quality. *Journal of Light Education*, 6(1), 25–37.
- Aunurrahman. (2022). *Learning and learning*. Bandung: PT Alfabeta.
- Danim, S., & Khairil. (2019). *Education profession*. Bandung: PT Alfabeta.
- Fitria, H. (2020). The influence of academic supervision and professional competence of teachers on teacher performance in state senior high schools in Tanjung Raja District. *Journal of Educational Management*, 9(1), 104–114.
- Hapizoh, E., Harapan, E., & Destiniar. (2020). The influence of teacher professionalism and principal supervision on teacher performance. *Journal of Educational Management, Leadership, and Supervision*, 5(2), 168–174.
- Hamalik, O. (2019). *Indonesian teacher personality*. Jakarta: PT Raja Grafindo Persada.
- Hamzah, B. U. (2017). *Education profession: Problems, solutions, and educational reform in Indonesia*. Jakarta: Bumi Aksara.
- Hernawan. (2022). *Learning and learning*. Jakarta: PT Rineka Cipta.
- Karbila, & Usman. (2021). Analysis of the availability and feasibility of lecture infrastructure in higher education. *SULTANIST: Journal of Management and Finance*, 9(1), 1–14.
- Karwono. (2017). *Learning and learning and utilization of learning resources*. Jakarta: PT Rajawali Press.
- Kusumawati. (2016). The influence of school principal's managerial ability and achievement motivation on the performance of elementary school teachers in Mas Mansyur District, Rowosari District, Kendal Regency. *Journal of Educational Management*, 2(3), 133–148.
- Mardalena, Arafat, Y., & Fitria, H. (2020). The effect of academic supervision and professional competence of teachers on teacher performance in state senior high schools in Tanjung Raja District. *Journal of Educational Management*, 9(1), 104–114.
- Matin, & Nurhattati, F. (2022). *Management of educational facilities and infrastructure: Concept and application*. Jakarta: PT Dian Rakyat.

- Mawaddah, Harapan, & Kesumawati. (2021). The influence of principal leadership and the availability of facilities and infrastructure on teacher job satisfaction. *Journal of Management, Leadership, and Supervision of Education*, 6(1), 100–111.
- Murkatik, Harapan, & Wardiah. (2020). The influence of professional and pedagogic competence on teacher performance. *Journal of Social Work and Science Education*, 1(1), 58–69.
- Nabela, Fitria, H., & Nurkhalis. (2021). The effect of professional competence and teacher work motivation on teacher performance. *ISEJ: Indonesian Science Education Journal*, 2(1), 12–16.
- Nanang. (2018). *Educational strategy*. Jakarta: PT Raja Grafindo Persada.
- Permendikbudristek No. 22 Tahun 2023. *Standards of facilities and infrastructure in early childhood education, primary education level, and secondary education level*. Jakarta: Ministry of Education and Culture of the Republic of Indonesia.
- Regulation of the Ministry of Education and Culture No. 54 Tahun 2022. *Teachers and lecturers*. Jakarta: Ministry of Education and Culture, Research and Technology of the Republic of Indonesia.
- Personal, B. A. (2019). *Technology media in learning*. Jakarta: PT Dian Rakyat.
- Ristianey, F., Harapan, E., & Destiniar. (2021). The effect of teacher certification and work motivation on teacher performance. *Journal of Educational Management, Leadership, and Supervision*, 6(1), 34–43.
- Rosmawati, Ahyani, N., & Missriani. (2020). The influence of teacher discipline and professionalism on teacher performance. *Journal of Education Research*, 1(3), 200–205.
- Rosyada, A., Harapan, E., & Rohana. (2021). The influence of teachers' pedagogic competence on the quality of senior high school learning in Sekayu City, South Sumatra. *Journal of Educational Management: Scientific Journal of Educational Administration, Management, and Leadership*, 3(1), 31–42.
- Rusman. (2022). *Learning and learning models*. Jakarta: PT Rajawali Press.
- Siregar, A. (2020). *Learning and learning*. Jakarta: PT Raja Grafindo Persada.
- Sugiyono. (2019). *Educational research methods: Quantitative, qualitative, and R&D approaches*. Bandung: PT Alfabeta.
- Sukardi. (2016). *Powerful teachers, the key to success in becoming effective teachers*. Bandung: PT Kolbu.
- Suryadi, A. (2022). *Education, human resources investment, and development: Issues, theories, and applications for the development of Indonesian education and human resources* (2nd ed.). Bandung: PT Widya Aksara Press.

- Drafting Team. (2024). *Guidelines for thesis preparation*. Palembang: Postgraduate Program of PGRI University of Palembang.
- Trianto. (2022). *Learning models*. Jakarta: PT Rineka Cipta.
- Triwiyanto, T. (2021). *Introduction to education*. Jakarta: PT Bumi Aksara.
- Undang-Undang No. 20 Tahun 2003 tentang Sistem Pendidikan Nasional. *Jakarta: Ministry of National Education of the Republic of Indonesia*.
- Usman, M. (2021). *Become a professional teacher*. Bandung: PT Remaja Rosdakarya.
- Wiguna, N., et al. (2020). Availability of facilities and infrastructure to support physical education, sports, and health learning. *Indonesian Journal of Sport & Tourism*, 2(2), 46–52.
- Wilarno, & Mundilarno. (2018). The effect of the utilization of infrastructure, welfare, and personality on teacher performance. *Journal of Educational Management Media*, 1(1), 30–37.
- Yamin, M. (2017). *Quality management of the educational curriculum*. Jakarta: PT Rajawali Press.
- Greece, et al. (2020). The effect of the availability of learning infrastructure and student activity on the learning achievement of Buddhist education subjects (ex-post facto research at the State Junior High School 3 Kaloran). *Journal of Education, Social Sciences, and Religion*, 6(1), 22–38.
- Zahroh, A. (2019). *Building the quality of learning through the dimension of teacher professionalism*. Bandung: PT Yrama Widya.