

The Effect of Principal's Academic Supervision on Strengthening 21st-Century Literacy Culture in Junior High School PE Learning

Sri Winarni^{1*}, Hendra Setyawan¹, Ahmad Rithaudin¹, Aris Fajar Pambudi¹

¹Faculty of Sport Science, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Email: hendra7777setyawan@uny.ac.id

ABSTRACT

This study aims to determine the effect of planning, implementation, and evaluation of school principals' academic supervision on strengthening 21st-century literacy culture in junior high school (SMP) PE learning in Bantul and Gunung Kidul, Yogyakarta. This research is a type of correlational research with a quantitative approach to determine the relationship between two or more variables. Data collection techniques through questionnaires. The sample of this research is PE junior high school teachers totaling 54 respondents who were taken using the purposive sampling technique. The instruments in this study have been tested for validity and reliability, and have been consulted by experts. The data analysis technique uses regression analysis that has been tested for classical assumptions. Based on the results of the partial test, the significant value of the X1 variable is $0.000 < 0.05$, X2 is $0.939 > 0.05$ and X3 is $0.626 > 0.05$. This means that partially the X1 variable has a significant effect on Y, while the X2 and X3 variables have no effect. Results (F Test) ANOVA obtained a significant value of $0.000 < 0.05$. This shows that the variables of planning, implementation, and evaluation of the principal's academic supervision simultaneously affect the strengthening of 21st-century literacy culture in PE learning at junior high schools in Bantul and Gunung Kidul. In addition, the R square value of 0.774 means that 77.2% of the strengthening of the 21st-century literacy culture of SMP PE is influenced by the planning, implementation, and evaluation of the principal's academic supervision.

Keywords: influence of supervision, 21st century literacy, PE.

1. INTRODUCTION

Mastery of literacy is an important indicator to improve the achievements of the younger generation in achieving success. Currently, six types of literacy have been developed, namely literacy, numeracy, finance, science, digital and Information and Communication Technology (ICT), as well as cultural literacy and citizenship. Literacy is not just the ability to read and write, but literacy can mean technology literacy and critical thinking. These 21st-century skills include critical thinking, creativity, collaboration, and 4C communication [1]. The call for educators around the world to prepare students for the 21st century encourages educators to provide students with a holistic education that emphasizes life skills such as communication, cross-cultural collaboration, and critical thinking [2]. 21st-century learning is learning characterized by learning skills, skills, and literacy. Learning skills are learning activities in

which are marked by cooperation, communication, and critical and creative thinking. This 21st-century competence has been adapted in the education system in Indonesia through the Curriculum 2013 (K-13). The approach used in the K-13 is a scientific approach (scientific approach) which consists of five activities (5m), namely observing, asking questions, experimenting, associating, and communicating [3].

Although the strengthening of literacy culture programmed for scientific learning in the K-13 has been running for several years, the reality on the ground shows that the literacy culture of students in Indonesia is still relatively low. Based on PIRLS and PISA data, especially in reading comprehension skills, it shows that the competence of Indonesian students is low [4]. Other countries in Asia, such as South Korea and Singapore, dominated the Program for International Student Assessment (PISA) achievements, while other countries from the East Asia region, including

Malaysia, also experienced a slump in PISA's achievements, despite having spent large budgets. for the field of education [5].

To successfully strengthen the culture of century literacy in learning requires involvement and collaboration from various parties. However, there have been many problems in the field related to learning, both from the leadership side of the principal and from the teacher's side as teaching staff. This can cause learning to be not achieved optimally. Problems that can hinder 21st-century teaching skills and competencies are hierarchical leadership mandates and structural limitations to collaboration [6]. Therefore, school leaders and teachers must be ready to create a more multicultural school culture by learning to handle students' ethnic cultural differences [7]

Professional teachers are teachers who have good performance, one of the factors that influence teacher performance is guided by the principal through supervision. The success factor in developing the leadership capacity of the principal lies in the leader who makes regular observations in the classroom, systematic tracking of student achievement and fostering a positive culture for learning, as well as the formation of a collaborative process that involves the community and peer learning groups of teachers [8]. For this reason, the next step for educational leaders is to provide guidance to their peers towards transformative change [9]

Broadly speaking, there are two factors that affect the quality of learning, including 1) Supporting factors which include the principal's leadership, coordination and cooperation, and teaching skills in managing the classroom, 2) Inhibiting factors include facilities and infrastructure, education budget, or financing and quality. low educators [10]. Moreover, the K-13 PE learning which contains strengthening 21st-century literacy culture requires teachers who are professional and have a high commitment to achieving learning goals. This is because in PE the curriculum content is not only about movement skills and physical health, but students are required to be able to think critically, creatively, and able to collaborate. The most prominent change in the 21st-century physical education curriculum is that physical learning does not only involve sports equipment, but learning resources that come from modern technology packaging need to be provided [11].

Therefore, to be able to provide encouragement to PE teachers to be motivated and highly committed to implementing PE learning Curriculum 2013 requires supervision from the principal in the form of continuous supervision.

This is because, good principal leadership, healthy school culture, and high teacher motivation are factors of high and low professionalism of physical education teachers [12]

However, what happens in the field is that most of the supervision tasks are left to the deputy principal or senior teacher and there is no follow-up on the results of the supervision so that they do not get maximum results. The principal as a motivator in schools has not been maximal in carrying out his duties, this can be seen by the low motivation of teachers in carrying out their duties and obligations. Based on the above phenomenon, the researcher is interested in conducting research on the effect of principal's academic supervision on strengthening 21st-century literacy culture in junior high school education learning in Bantul and Gunung Kidul districts, Yogyakarta Province.

2. METHOD

2.1 Participants

The sample in this study was taken with a purposive sampling system. The sample of this research was 54 respondents of PE junior high school teachers from Bantul Regency and Gunung Kidul Regency, Yogyakarta Province (Table 1).

TABLE 1. RESPONDENT TEACHERS AND NUMBER OF SMP TEACHERS

No	Districts	Respondent PE Teacher	Number SMP
1	Bantul	30	30
2	G. Kidul	24	24
Total		54	54

2.2 Procedure

This research belongs to the type of correlational research, which is a study to determine the relationship and level of relationship between two or more variables. This study uses a quantitative approach.

The variables in this study consisted of three independent variables, namely the principal's academic supervision planning variable (X1), the principal's academic supervision implementation variable (X2), the principal's academic supervision evaluation variable (X3), and one dependent variable, namely strengthening 21st-century literacy culture in Middle School PE learning (Y).Data Collection

The data collection technique used in this study was a Likert scale questionnaire 1 – 4. The instrument on the school principal's academic supervision planning variable (X1) consisted of 7 questions, the principal's academic supervision implementation variable instrument (X2) consisted of 7 questions, the evaluation variable for the

school principal's academic supervision (X3) consists of 7 questions, and the instrument for strengthening the 21st-century literacy culture variable in Junior High School (SMP) PE learning (Y) consists of 10 questions. The instrument has been prepared by the researcher according to the context to be studied and has been consulted with experts.

The instrument has been tested for validity (Product Moment Pearson Correlation) and reliability (Cronbach's Alpha) before being used in research. The results of the validity test of the independent variables X1, X2, and X3 all question items have an r-count value greater than the r-table value of 0.266 and a sig value. (2-tailed) for the correlation of all question items is $0.000 < 0.05$ with a positive Pearson correlation at a significance level of 5%. Thus, all question items are declared valid. Then on the dependent variable (Y), all question items have an r-count value greater than the r-table value of 0.266 and a sig value. (2-tailed) $0.000 < 0.05$ so that all question items are declared valid.

Instruments that have been declared valid are then tested for Cronbach's alpha reliability. The results of the variable reliability test (X1) all items have a value of 0.836 with 7 question items, so that Cronbach's alpha value of $0.836 > 0.60$ is declared reliable or consistent. In the variable (X2) Cronbach's alpha value of all items is 0.813 with 7 question items, so the value of $0.813 > 0.60$ is declared reliable. In the variable (X3) Cronbach's alpha value of all items is 0.823 with 7 question items, so the value of $0.823 > 0.60$ is declared reliable. In the variable (Y) Cronbach's alpha value of all items is 0.912 with 10 question items, so the value of $0.912 > 0.60$ is declared reliable.

2.3. Data Analysis

The data analysis technique in this study used simple linear regression analysis and multiple linear regression using SPSS software. The steps of data analysis include: (1) classical assumption testing includes normality test, linearity test, multicollinearity test, and heteroscedasticity test; (2) partial simple linear regression analysis (T-test); (3) simultaneous multiple linear regression analysis (F test) Anova; and (4) analysis of the coefficient of determination

3. RESULT

3.1 Classic Assumption Test

Based on the results of the first classical assumption test, namely the normality test, it has been found that the significance value (2-tailed) is $0.518 > 0.05$, so it can be concluded that the residual value is normally distributed. Based on the

results of the second classical assumption test, namely the linearity test, it has been found that the X1 variable has a Sig value. Deviation From Linearity is $0.078 > 0.05$. The variable X2 has a value of Sig. Deviation From Linearity is $0.715 > 0.05$. The variable X3 has a value of Sig. Deviation From Linearity is $0.135 > 0.05$. Thus the variables X1, X2, and X3 with respect to Y are linear, so it can be concluded that they meet the linearity requirements. Based on the results of the third classical assumption test, namely the multicollinearity test, it has shown that the Tolerance value of the variable X1 = 0.600, X2 = 0.497 and X3 = 0.541 > 0.100 and the VIF value of the variable X1 = 1.667, X2 = 2.012 and X3 = 1.847 < 10.00 then the conclusion is that there is no multicollinearity in the regression model. Based on the results of the fourth classical assumption test, namely the heteroscedasticity test, it has shown that the significance value (Sig) of the X1 variable = $0.668 > 0.05$, the X2 variable = $0.346 > 0.05$, and the X3 variable = $0.416 > 0.05$, so this study free from heteroscedasticity and deserves to be studied. Based on the results of all classical assumption tests which include normality test, linearity test, multicollinearity test, and heteroscedasticity test above, the linear regression model has met the requirements for partial (T-test) and (F-test) simultaneous, and coefficient analysis determination

3.2 Partial T Test

The results of this study indicate (T-test) partially the variable (X1) obtains a T-count value of $5.247 > T\text{-table } 2.009$ and a Sig. $0.000 < 0.05$. Thus H_0 is rejected and H_a is accepted, indicating that the school principal's academic supervision planning variable (X1) has a significant effect on strengthening 21st-century literacy culture in junior high school education learning (Y). Then (T-test) partially the variable (X2) obtained a T-count value of $-0.77 < T\text{-table } 2.009$ and a significance value of $0.939 > 0.05$. Thus H_0 is accepted and H_a is rejected, indicating that the variable of the implementation of the principal's academic supervision (X2) has no significant effect on strengthening 21st-century literacy culture in junior high school education learning (Y). As for the results (T-test) partially the variable (X3) obtained a T-count value of $0.626 < T\text{-table } 2.009$ and a significance value of $0.534 > 0.05$. Thus H_0 is accepted and H_a is rejected, indicating that the evaluation of the school principal's academic supervision variable (X3) has no significant effect on strengthening 21st-century literacy culture in PE learning at junior high schools in Bantul and Gunung Kidul districts (Y).

Simultaneous F test

The results (F Test) of ANOVA show that the significance value for the simultaneous effect of the variables X1, X2, and X3 on (Y) is the value of Sig. $0.000 < 0.05$ and the F-count value is $57,096 > F$ -table 2.79. Thus, it can be concluded that the planning variable for the principal's academic supervision (X1), the implementation of the principal's academic supervision (X2), and the evaluation of the principal's academic supervision (X3) simultaneously have an effect on the variable of strengthening 21st-century literacy culture in SMP PE learning in Bantul Regency. and Gunung Kidul (Y) (Table 2).

TABLE 2. ANOVA TEST

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	676.463	3	225.488	57.096	.000 ^a
Residual	197.462	50	3.949		
Total	873.926	53			

Coefficient of Determination

The results of R square show a value of 0.774 which means that the variables of planning, implementation and evaluation of the principal's academic supervision are able to influence the strengthening of 21st-century literacy culture in SMP PE learning in Bantul and Gunung Kidul districts by 77.4%. Meanwhile, 22.6% is influenced by other variables outside this study (Table 3).

TABLE 3. SUMMARY MODEL

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.880 ^a	.774	.760	1.987

4. DISCUSSION

4.1 Effect of X1 on Y

The results of the value (T-test) for the school principal's academic supervision planning variable in this study obtained a value of 5.247 with a significance value of 0.000. The positive regression coefficient means that the influence that arises in this study is unidirectional, where if the principal's academic supervision planning is good, the strengthening of 21st century literacy culture in SMP PE learning will also increase, and vice versa. With good academic supervision planning, teachers will be able to prepare various things needed and also make learning administration, such as syllabus and lesson plans. Thus, it will further improve the maximum quality in the learning process and in

dealing with the academic supervision of the principal. This is in line with the results of research conducted by Ainun (2021) [13] that there is a significant influence between the principal's academic supervision on teacher performance in junior high schools. Thus, the first hypothesis which reads "There is a partial effect of the principal's academic supervision planning on strengthening 21st-century literacy culture in SMP PE learning in Bantul and Gunung Kidul Regencies" is declared accepted.

4.2 Effect of X2 on Y

The results of the value (T-test) for the variable of the implementation of the principal's academic supervision obtained a value of -0.077 with a significance value of 0.939. Because the significance value is greater than 0.05, Ho is accepted and Ha is rejected. Thus, it can be interpreted that the variable of the implementation of the principal's academic supervision partially has no significant effect on strengthening 21st-century literacy culture in SMP PE learning. This is contrary to the results of research conducted by Kaleka (2021) [14] that there is a significant influence between the principal's academic supervision on teacher performance in junior high schools. So, the second hypothesis which reads "There is an effect of partial implementation of the principal's academic supervision on strengthening 21st-century literacy culture in SMP PE learning in Bantul and Gunung Kidul Regencies" is rejected.

4.3 Effect of X3 on Y

The results of the value (T-test) for the evaluation variable of the principal's academic supervision obtained a value of 0.626 with a significance value of 0.534. Because the significance value is greater than 0.05, Ho is accepted and Ha is rejected. Thus, it can be interpreted that the evaluation variable for the principal's academic supervision partially has no significant effect on strengthening 21st-century literacy culture in SMP PE learning. This is contrary to the results of research conducted by Ainun (2021) [13] that there is a significant influence between the principal's academic supervision on teacher performance in junior high schools. So, the third hypothesis which reads "There is an effect of partial evaluation of the principal's academic supervision on strengthening 21st-century literacy culture in junior high school education learning in Bantul and Gunung Kidul Regencies" is rejected.

4.4 Effect of X1, X2, and X3 on Y

Based on the results (F Test) ANOVA in the study has shown that the planning of the principal's academic supervision (X1), the

implementation of the principal's academic supervision (X2), and the evaluation of the principal's academic supervision (X3) together have an effect on strengthening the 21st-century literacy culture in SMP PE learning. (Y). Based on the results of the ANOVA table, the value is 0.000. In conclusion, the three independent variables jointly affect the strengthening of 21st-century literacy culture in junior high school PE learning in Bantul and Gunung Kidul districts. This is also supported by the results of the R-square (R²) value of 0.774, meaning that 77.4% of strengthening 21st-century literacy culture in junior high school education learning is influenced by the variables of planning, implementation, and evaluation of the principal's academic supervision. While 22.6% is influenced by other variables. The implementation of the principal's academic supervision will affect the motivation of teachers to further improve the quality of learning. This is supported by the results of research conducted by Ainun, Saidah, and Kaleka (2021; 2021; 2018) [13] [14] [15] his research shows the results: 1) That there is a significant influence between the principal's academic supervision on the performance of teachers in junior high schools; 2) Through the supervision of the principal, there is an increase in the performance of teachers in the field of learning administration and an increase in the performance of teachers in the field of implementation in junior high schools; and 3) Principal's academic supervision on teacher teaching performance has a very strong positive correlation in SMK. Thus, the first hypothesis reads "There is an effect of planning for the principal's academic supervision, the implementation of the principal's academic supervision, and the simultaneous evaluation of the principal's academic supervision on strengthening 21st-century literacy culture in SMP PE learning in Bantul and Gunung Kidul Regencies" is declared accepted.

5. CONCLUSION

Based on the results of the discussion conducted by the researchers, the conclusions can be drawn: (1) The planning of the principal's academic supervision partially affects the strengthening of 21st-century literacy culture in learning SMP PE in Bantul and Gunung Kidul regencies. (2) The implementation of the principal's academic supervision partially does not affect the strengthening of 21st-century literacy culture in the learning of SMP PE in Bantul and Gunung Kidul regencies. (3) The evaluation of the principal's academic supervision partially has no effect on strengthening 21st-century literacy culture in PE learning in junior high schools in Bantul and

Gunung Kidul districts. (4) The planning of the principal's academic supervision, the implementation of the principal's academic supervision, and the evaluation of the principal's academic supervision simultaneously have an effect on strengthening the 21st-century literacy culture in SMP PE learning in Bantul and Gunung Kidul regencies.

ACKNOWLEDGMENT

The author would like to thank all the leaders of Yogyakarta State University (UNY) who have given research permits with the issuance of SK Number 73/UN34.16/PT.01.01/2021. The authors also thank the Institute for Research and Community Service (LPPM) UNY for the financial support in this research. We would also like to thank the PE Teachers of SMP in Bantul and Gunung Kidul Districts, Yogyakarta.

REFERENCES

- [1] T. Tang, V. Vezzani, and V. Eriksson, "Developing Critical Thinking, Collective Creativity Skills And Problem Solving Through Playful Design Jams," *Think. Ski. Creat.*, vol. 37, no. July, p. 100696, 2020.
- [2] P. Teo, "Teaching For The 21st Century: A Case For Dialogic Pedagogy," *Learn. Cult. Soc. Interact.*, vol. 21, no. January, pp. 170–178, 2019.
- [3] S. N. Pratiwi, C. Cari, and N. S. Aminah, "Pembelajaran IPA Abad 21 Dengan Literasi Sains Siswa," *J. Mater. dan Pembelajaran Fis.*, vol. 9, pp. 34–42, 2019.
- [4] Kementrian Pendidikan dan Kebudayaan, "Desain Induk Gerakan Literasi Sekolah," Kemdikbud, Jakarta, 2016.
- [5] L. D. H. Perera and M. N. Asadullah, "Mind The Gap: What Explains Malaysia's Underperformance In Pisa?," *Int. J. Educ. Dev.*, vol. 65, pp. 254–263, Mar. 2019.
- [6] R. A. Sprott, "Factors That Foster And Deter Advanced Teachers ' Professional Development," *Teach. Teach. Educ.*, vol. 77, pp. 321–331, 2019.
- [7] R. Vervaet, M. Van Houtte, and P. A. J. Stevens, "Multicultural School Leadership, Multicultural Teacher Culture And The Ethnic Prejudice Of Flemish Pupils," *Teach. Teach. Educ.*, vol. 76, pp. 68–77, Nov. 2018.
- [8] O. S. Mary, T. Toabwa, T. Tekonnang, H. Tebetaio, and T. Taaruru, "School Leadership Capacity-Building: Developing Country Successful Case Studies," *Int. J. Educ. Manag.*, vol. 34, no. 10, pp. 1615–

- 1636, Jan. 2020.
- [9] E. B. Kozleski, I. Stepaniuk, and W. Proffitt, "Leading Through A Critical Lens: The Application Of Discret In Framing, Implementing And Improving Equity Driven, Educational Systems For All Students," *J. Educ. Adm.*, vol. 58, no. 5, pp. 489–505, 2020.
- [10] K. S. Siagian, "Implementasi Fungsi-Fungsi Manajemen Kepala Madrasah Untuk Meningkatkan Mutu Pembelajaran Guru Di Mts Nurul Iman," *HIJRI - J. Manaj. Pendidik. dan Keislam.*, vol. 7, no. 2, pp. 101–109, 2018.
- [11] P. S. Mustafa and W. D. Dwiyoogo, "Kurikulum Pendidikan Jasmani, Olahraga, dan Kesehatan di Indonesia Abad 21," *JARTIKA J. Ris. Teknol. dan Inov. Pendidik.*, vol. 3, no. 2, pp. 422–438, 2020.
- [12] A. Sinulingga and D. Pertiwi, "Profesionalisme guru pendidikan jasmani : dari kepemimpinan kepala sekolah , budaya sekolah hingga motivasi kerja guru Professionalism of physical education teachers: From the leadership of school principals , school culture to teacher work motivation PE," vol. 5, 2019.
- [13] Siti Hasri Ainun, "Pengaruh Supervisi Akademik Kepala Sekolah Terhadap Kinerja Guru Pada Smp Negeri Di Kecamatan Rappocini Kota Makassar," Universitas Negeri Makasar, 2021.
- [14] N. N. M. B. U. Kaleka, "Meningkatkan Kinerja Guru Melalui Supervisi Akademik Kepala Sekolah Dengan Pendekatan Individual Di Smpn 7 Nangapanda," *J. Pendidik. Fis.*, vol. 4, no. 1, 2021.
- [15] Saidah, "Supervisi Akademik Kepala Sekolah Dan Motivasi Kerja Guru Dalam Kinerja Mengajar Guru," *J. Adm. Pendidik.*, vol. 25, no. 2, 2018.