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THE EFFECTIVENESS OF SCHOOL PRINCIPALS' ACADEMIC SUPERVISION MANAGEMENT ON THE COMPETENCY OF JUNIOR HIGH SCHOOL TEACHERS IN SEUNAGAN DISTRICT

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Abstract. The importance of teacher competency lies in the teacher's ability to deliver effective learning, inspire students, and help teachers reach their maximum potential. Therefore, the role of the school principal, especially in academic supervision, is very important to support increasing competency and quality of learning in schools. This research aims to find out whether the principal's academic supervision management is effective in improving the competence of junior high school teachers in Seunagan District. This research uses quantitative methods. The subjects in this research consisted of 3 school principals and 3 class teachers, each of whom came from 3 schools, namely SMPN 1 Seunagan, SMPN 3 Seunagan and SMPN 6 Seunagan selected using saturated sampling techniques. Data collection techniques in this research used observation, interviews and questionnaires. The analysis technique in this research uses normality, homogeneity and T tests. The results of this research show that the principal's academic supervision management has an effective effect on teacher competence with the t test results having a significance value of less than 0.05. Therefore, the implementation of academic supervision management by school principals to improve teacher competence is effective.

Keywords: academic supervision, teacher competency, effectiveness

I. INTRODUCTION

Teacher competency is one way to meet teacher competency standards in accordance with professional demands and developments in science, technology and art. Improving teacher competency is an important part that must always be done continuously or sustainably to maintain teacher professionalism (Anđić, 2020; Brandisauskiene et al., 2020; Şemin, 2019). Constitution Number 14 of 2005 concerning Teachers and Lecturers stipulates that: "Teachers and lecturers must have academic qualifications, competencies, educational certificates, be physically and mentally healthy, and meet other qualifications required by the higher education unit in charge, and have the ability to realize national education goals" (Brown et al., 2019; Fildzah, 2020; Nurhayati et al., 2019).

Efforts to realize comprehensive educational goals will certainly not be separated from improving the competence of educators themselves (Karalis, 2020). Teachers who have good competence will carry out the functions and goals of

learning at school in order to realize educational (Brandt et al., 2019; Murkatik et al., 2020). Then Fazilla (Fazilla et al., 2023) explained that: Professional competencies include: 1) mastery of teaching materials and concepts; 2) Management of teaching and learning programs; 3) classroom management; 4) Management of media and learning resources; 5) mastery of educational foundations; 6) ability to assess teaching and learning achievements; 7) understand the principles of managing educational institutions and programs in schools; 8) master thinking methods; 9) improve capabilities and carry out professional missions; 10) provide assistance and guidance to students; 11) have insight into educational research; 12) able to carry out simple research for teaching purposes; 13) able to understand the characteristics of students; 14) able to carry out school administration; 15) have insight into educational innovation; 16) dare to make decisions; 17) able to work planned and programmed; 18) able to use time appropriately.

The function of a school leader or principal in making decisions and policies related to efforts to achieve the goals

of educational institutions is very complicated (Hanafi et al., 2021; Harrington et al., 2019; Sá & Serpa, 2020). The large number of tasks in the organization means that leaders must be able to manage the competencies possessed by each teacher in the school (Bafadal et al., 2019; Juharyanto et al., 2020; Karakose et al., 2021). In general, the principal has the responsibility to lead in the areas of teaching, curriculum, student administration, community relations, staff personnel administration, and several other responsibilities (H. Komalasari et al., 2018; Naidoo, 2019; Park et al., 2019). School principals must also show high commitment and focus on developing the curriculum in teaching and learning activities and maintaining good school infrastructure (Alqahtani et al., 2021). If the school principal is able to direct, guide and guide members appropriately, then all activities within the school organization will be carried out effectively (Nabella et al., 2022). On the other hand, if you cannot move effectively, you will not be able to achieve your goals optimally. As an educational leader, the principal is classified as an official leader, so he is responsible for managing teaching, finances, student affairs and relations with the community in addition to his duties as educational supervisor (K. Komalasari et al., 2020).

The quality of school principals is currently a crucial requirement in school organizational structures. Cultivating quality leadership is a fundamental step in efforts to build a quality nation. As a leader, the school principal is required to not only invite but also encourage all his staff to actively participate in efforts to improve the overall quality of education (Juharyanto et al., 2020; Naidoo, 2019; Zaini & Syafaruddin, 2020). The key role of school principals in improving teacher competency and ensuring efficient monitoring of their performance has a significant impact on the success and achievement of teaching goals (K. Komalasari et al., 2020; Muliati et al., 2022; Naidoo, 2019). In a conducive learning atmosphere created by the school principal, educators and students can carry out the learning process more effectively in the school environment (Ariyani et al., 2021; Lodhi et al., 2019; Madudili & Geraldine, 2018). One concrete step that can be taken to improve the quality of learning is to carry out intensive supervision, where the school principal also provides support and guidance to teachers (Estiani & Hasanah, 2022; Honig & Rainey, 2019; Sunaryo, 2020). The responsibility of the school principal in carrying out school programs effectively and productively is an inevitable necessity. Through well-implemented teaching supervision, it not only directs teachers' efforts to increase their professionalism to the maximum, but also provides opportunities for teachers to continue to develop themselves better (Pambudi, 2019; Tati, 2019; Karnati, 2019) (Agung Pambudi & Gunawan, 2020; Karnati, 2019; Nurhayati et al., 2019).

However, in reality, based on observations made in several schools in Seunangan Regency Middle Schools, there are still teachers whose abilities do not match expectations.

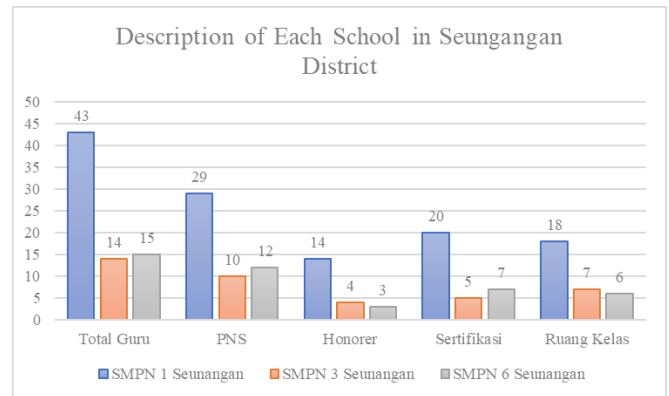


Fig 1. Description of Each School in Seunangan District

From this data, it can be seen that although the number of certified teachers is quite significant in each school, the higher number of honorary workers in SMPN 1 and SMPN 3 may pose challenges in academic supervision. This indicates the need for more attention from school principals in improving teacher competence, especially for those with honorary status, so that the quality of teaching can be maintained and student learning outcomes can improve. In addition, the ratio of teachers to classrooms also shows potential problems in effective classroom management, requiring better supervision strategies to ensure all teachers can optimize their competence.

Apart from that, observations made by researchers obtained information that the professional competence carried out by teachers was not able to optimize teachers' professional abilities in learning. For this reason, efforts to increase teacher professional competence need to receive serious guidance from school principals, such as mastering broad and in-depth learning materials that enable guiding students, mastering the development areas being taught, developing materials creatively, developing professionalism continuously by carrying out reflective actions, and utilize ICT to communicate and develop themselves.

Supervision is an activity that has been planned to provide support to teachers and other school staff so that they can carry out their duties properly (Saihu, 2020). Academic supervision is the provision of professional services to teachers provided by the school principal or appointed teacher to improve the quality of learning processes and outcomes (Alam et al., 2021; Rusdiana et al., 2020; Xin & Yun, 2021). There are three terms related to supervision, namely supervision, supervision and inspection. Supervision involves checking activities to ensure that everything goes according to established plans, instructions and principles. Another definition describes supervision as an activity to ensure that the implementation of activities is in accordance with predetermined plans and objectives (Annisa Luthfi Azzahra & Fathoni, 2023).

The role of the principal is very vital in the progress and development of the school, especially as a supervisor who is responsible for improving teacher skills in managing learning activities (Akib et al., 2020; Rostini et al., 2022). The school principal carries out academic supervision as an effort to improve learning conditions through coaching

teachers. Supervision carried out by the school principal can increase teacher competence, so it is hoped that the school principal is able to provide appropriate guidance and in accordance with the principles and techniques required in academic supervision (Kartini et al., 2020).

Several studies related to academic supervision of school principals, such as that conducted by Meidiana (2020) regarding academic supervision of teacher performance, show that academic supervision has a significant effect on teacher performance. Nurkamal's (2021) research shows that the principal's academic supervision activities are effective and have a positive impact on increasing teacher competency and quality learning output. Suchyadi's research (2022) states that the principal's academic supervision increases teacher competence, which includes professional and pedagogical competence. However, there has been no research that focuses on the effectiveness of school principals' academic supervision management on teacher competency. So this research needs to be carried out.

This research aims to identify the relationship between the effectiveness of supervision carried out by school principals and increasing teacher pedagogical, professional and social competence. In addition, this research also aims to evaluate the factors that influence the effectiveness of academic supervision and its impact on the quality of teaching and student learning outcomes. Thus, it is hoped that the research results can provide constructive recommendations for the development of more effective supervision strategies in schools.

II. METHODS

This research uses quantitative methods, namely to see the influence between variables. This method is suitable for measuring the effectiveness of academic supervision because it allows researchers to collect comprehensive data about teachers' perceptions of supervision carried out by school principals and its impact on teacher competence. The variables in this research consist of 2 variables, namely academic supervision management (X1) and teacher competency (Y). This research included 3 Principals and 3 Class Teachers, each from 3 schools, namely SMPN 1 Seunagan, SMPN 3 Seunagan and SMPN 6 Seunagan. The sample was selected using a saturated sampling technique, where all members of the population were used as samples. This technique was chosen because it allows researchers to gain an in-depth and comprehensive understanding of the effectiveness of academic supervision management in each school, considering the limited number of principals and teachers. By involving all members of the population, researchers can ensure that the data obtained includes a variety of relevant perspectives and experiences, so that research results become more representative and valid. However, the selection of only three principals and three teachers also has its own implications. Although providing in-depth data from each individual, the small sample may limit the generalizability of the findings to the broader population. In addition, the results obtained may not reflect the variations that exist in other schools outside these three

schools. The research design is presented in the following figure.

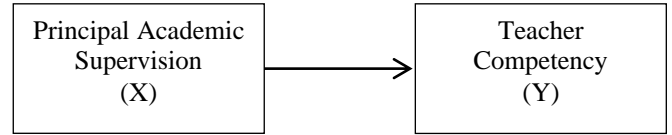


Fig 2. Research design

The data collection techniques used were interviews, questionnaires and documentation. The interviews were conducted in a semi-structured manner, where the researcher had a list of main questions but left room for further exploration based on the respondents. The qualitative nature of the observations in this interview allows researchers to explore the experiences and views of school principals and teachers regarding the effectiveness of academic supervision. Data collection through documentation includes collecting relevant documents such as supervision activity reports, teacher profiles, and academic achievement data. The instrument used is a questionnaire using a Likert scale with a range of 1-5. The questionnaire consists of 20 question items, namely 10 selected items for principal academic supervision, and 10 items for teacher competency. The questionnaire indicators in this research can be seen in the following table.

TABEL 1
 RESEARCH INSTRUMENT

No.	Variable	Indicator	Question Items
1.	Principal Academic Supervision Management (X)	Conduct observations in each class	1,2
		Carrying out individual meetings with teachers to explore the potential of each teacher	3,4
		Providing time and services for teachers in solving academic and administrative problems	5,6
		Providing support and a conducive atmosphere for teachers in improving and improving teacher performance	7,8
2.	Teacher Competency (Y)	Work with teachers to evaluate learning outcomes	9,10
		Ability to prepare learning plans	11,12
		Ability to carry out learning	13,14
		Ability to establish interpersonal relationships	15,16
		Ability to carry out	17,18

learning outcomes
 assessments
 Ability to carry out 19.20
 enrichment and
 remediation

Before the instrument is disseminated, the instrument's validity and reliability must be tested. Validity tests are carried out to determine whether the data obtained is valid or not using measuring instruments that have been developed. Meanwhile, a reliability test is carried out to find out whether the data obtained is reliable or consistent. The results of the instrument validity test can be seen in the following table.

TABEL 2
 INSTRUMENT VALIDITY TEST

No.	Variable Indicator	Sig value. (2-tailed)
1.	Principal Academic Supervision Management (X)	0.591
2.	Teacher Competency (Y)	0.625

The validity test results show that all items are proven to be valid which can be seen in the Sig results. (2-tailed) $0.591 > 0.05$. Thus it can be concluded that the instrument can be used to test variables X and Y. The reliability test of the instrument can be seen in the following table.

TABEL 3
 INSTRUMENT RELIABILITY TEST

No.	Variable	Cronbach's Alpha	N of Items
1.	Principal Academic Supervision Management (X)	0.762	10
2.	Teacher Competency (Y)	0.741	10

Table 3 shows that all question indicators for each variable have a Crinbach's Alpha value above 0.05, which indicates that the questionnaire instrument developed can be trusted as an instrument in research.

The normality test is carried out to ensure that the data follows a normal distribution, which is an important requirement for many statistical analyses, including the T test. The homogeneity test checks the equality of variances between groups, so that the analysis results can be more accurate and can be compared well. The T test was chosen to compare means between two groups, provide insight into the influence of principal academic supervision on teacher competency, and contribute to the reliability and validity of the findings by ensuring that the assumptions of the statistical analysis were met. The commonly used significance level in the T test is 0.05, which indicates the limit at which the researcher is prepared to accept a 5% risk that the results obtained can be caused by chance. If the significance value (p-value) of the T test is less than 0.05, this indicates that there is a significant difference between the averages of the two groups being compared, so the researcher can conclude that the principal's academic supervision has a real effect on teacher competence.

III. RESULT

A. Normality test

The normality test is used to check whether the data from each variable is normally distributed or not. The formula that is often used is the Kolmogorov-Smirnov formula. To determine whether the frequency distribution of each variable is normal or not, we can look at the Asymp.Sig (2-tailed) value. If the Asymp.Sig (2-tailed) value is < 0.05 , then the data is not normally distributed. Conversely, if the Asymp.Sig (2-tailed) value is > 0.05 , then the data is considered to be normally distributed. The results of the normality test using the SPSS Version 25 computer program can be seen in the following table.

TABEL 4
 NORMALITY TEST

No.	Variable	Significance Level	Asymp. Sig. (2-tailed)	Information
1.	Principal Academic Supervision Management (X)	0.05	0.261	Normal
2.	Teacher Competency (Y)	0.05	0.200	Normal

Based on Table 4 above, the calculation results using SPSS software show the significance value (Sig) of the two variables, namely the principal's academic supervision management (X) with a Sig value of $0.261 > 0.05$, and teacher competency (Y) with a Sig value. $0.200 > 0.05$. Because the Sig value of these two variables is greater than 0.05, it can be concluded that the academic supervision and teacher competency data have a normal distribution.

B. Homogeneity Test

The homogeneity test aims to determine whether the data variance is homogeneous or heterogeneous based on certain characteristics. In this research, the homogeneity test is used as a requirement before carrying out Independent Samples T-Test and Anova analysis. Decisions are taken based on significance values; If this value is greater than 0.05, then the variance of the population is considered the same or homogeneous. However, if the significance value is less than 0.05, then the variances of the two population groups are considered unequal or heterogeneous. The homogeneity test results can be seen in the following table.

TABEL 5
 HOMOGENEITY TEST

Levene Statistics	df	Sig.
.186	10	.022

Based on the table above, it is known that the significance value of the principal's academic supervision (X) and

competency (Y) variables is $0.022 > 0.05$, so it can be concluded that the data on the influence of the principal's academic supervision on teacher competence is homogeneously distributed.

C. T test

The T test is used to assess the effectiveness of one independent variable, which can be the school principal's management of academic supervision, on the dependent variable, namely teacher competence. The table below displays partial test results from the study.

TABEL 6
T-TEST RESULT

t-Test Results	Significance
of the Independent Sample Test	0.001

Based on the results above, it is known that the significance value of the t test is 0.000 or less than 0.05, so it can be concluded that teacher academic supervision management is effective on teacher competency.

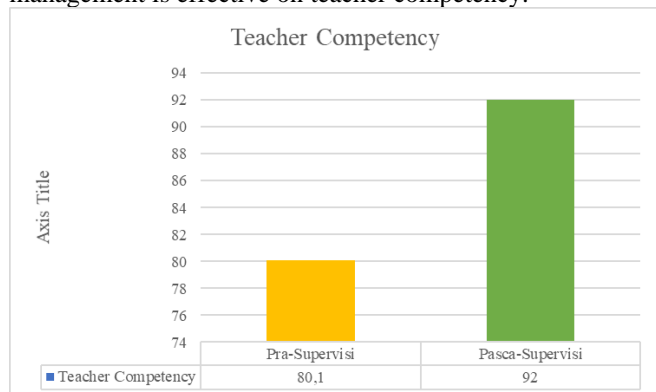


Fig 3. Questionnaire Results Before and After Supervision on Teacher Competency Indicators

The table above shows a comparison of teacher competency scores before and after implementing academic supervision. Before supervision, the average teacher competency score was recorded at 80.1, which reflects an adequate level of ability but there is still room for improvement. After supervision was implemented, the competency score increased significantly to 92, indicating that the principal's management of academic supervision had a real positive impact on increasing teacher competency. This increase not only illustrates the effectiveness of supervision, but also shows that the intervention carried out is able to provide direct benefits for the quality of teaching in schools.

IV. DISCUSSIONS

The findings of this research indicate that effective academic supervision by school principals has a significant impact on increasing teacher competency, which is in line with existing literature. Previous research states that planned supervision and focus on professional development can improve teachers' understanding and skills in the learning process. With a significance value of the T test of less than

0.05, these results confirm that the management of academic supervision by school principals not only functions as supervision, but also as a strategic effort to provide constructive feedback, training and support to teachers. The results of this research support previous research conducted by Meidiana (2020) regarding academic supervision on teacher performance shows that academic supervision has a significant effect on teacher performance. Nurkamal's (2022) research shows that the principal's academic supervision activities are effective and have a positive impact on increasing teacher competency and quality learning output. Suchyadi's research (2022) states that the principal's academic supervision increases teacher competence, which includes professional and pedagogical competence.

Principals who carry out supervision with a collaborative approach tend to create a positive learning environment, where teachers feel supported and motivated to improve the quality of their teaching. This is in line with professional development theory which states that ongoing support from school leaders contributes to teacher learning and improving skills. Thus, the results of this research emphasize the important role of school principals in creating a supervision system that is not only effective but also responsive to the needs of teacher competency development.

Based on the results of research on the principal's program in developing the competency of junior high school teachers in Seunagan sub-district, it was found that the academic supervision program carried out by the principal on a regular basis aims to improve the quality of learning by paying attention to increasing teacher competency, resulting in an increase in the quality of education. The formulation of the supervision program was carried out well and involved an internal school team such as the principal, deputy principal and senior teachers appointed directly by the principal. The preparation of this supervision program focuses on the needs and challenges faced by teachers in accordance with the objectives of supervision planning. The role of school principals in developing teacher professionalism is very important, including providing input, guidance and capacity development to improve their competence. Academic supervision carried out by the school principal is an important managerial function in ensuring the effectiveness and quality of learning in schools. The main aim of this supervision is to help teachers improve their professional competence in teaching and educating students, in line with efforts to improve the quality and quantity of educational institutions. Evaluation of the supervision program is carried out to find weaknesses and deficiencies that need to be corrected in the next supervision, by involving the principal, deputy principal and senior teachers. Follow-up of this supervision program is very important to ensure that program objectives are achieved optimally, with a focus on improving teacher competency, learning quality and student learning outcomes through planned, evaluative and continuous follow-up.

These results show that the principal is able to carry out and implement academic supervision of teachers with the aim of increasing teacher competence. Teachers need to plan

and set targets in order to achieve the desired goals. According to Noor (2020), academic supervision is a series of activities that help teachers develop their abilities in managing the learning process to achieve learning goals. The essence of academic supervision mainly focuses on learning aspects such as learning tools, teaching and learning processes, assessment, teacher development, and optimal service in the learning process.

The school principal, in his role as supervisor, has the function of supervising, controlling, guiding, directing and exemplifying teachers and staff at the school. The school principal has a good understanding of the duties and positions of the employees and staff under his leadership, so that the coaching he carries out can run smoothly and not cause confusion. As expressed by Kaso (2021), in implementing supervision, school principals are expected to be able to carry out various forms of supervision and control to improve the performance of educational staff. This supervision and control aims to control that educational activities in schools comply with the directions and objectives that have been set, as well as as a preventive measure to prevent deviations by educational staff and encourage them to be more careful in carrying out their duties.

The practical implications of these research findings are important for school administrators and policy makers. First, results showing the effectiveness of academic supervision in improving teacher competency can encourage school principals to adopt a more collaborative and structured supervision approach. This can include providing ongoing training and professional development for teachers, as well as creating space for constructive feedback in the teaching process. Second, policymakers can use these insights to formulate guidelines and standards for academic supervision at the broader school level. By establishing a clear framework, including training for principals in effective supervision practices, they can ensure that every school has the resources and support needed to improve the quality of teaching. Additionally, the best practices identified in this research can be shared and implemented in other schools through mentoring programs or practice-based training. By sharing experiences and successful strategies, schools can learn from each other and adapt to their local context, thereby creating a strong support network for the overall development of teacher competency. This will result in an educational environment that is higher quality and responsive to student needs.

Limitations of this study include the small sample size, involving only three principals and three teachers from three schools, which may limit the generalizability of the findings. With a limited number of respondents, the results obtained may not reflect broader conditions or experiences in other schools, so there is a risk that these findings cannot be applied universally across educational contexts.

V. CONCLUSION

This research found that effective academic supervision management by school principals has a significant effect on increasing teacher competency, with a significance value of less than 0.05. The academic supervision program at junior high schools in Seunagan District has succeeded in improving the quality of learning through increasing teacher competency. These findings emphasize the important role of school principals in designing, evaluating and improving supervision programs to support teacher professionalism and improve pedagogical competence.

For principals and school administrators, it is recommended to implement structured and collaborative academic supervision, including ongoing training for teachers and constructive feedback. In addition, further research needs to be conducted in the form of longitudinal studies to understand the long-term impact of academic supervision and investigations into certain aspects of supervision, such as the most effective methods in increasing teacher competence. Support from the education department is also very necessary to develop better academic supervision practices to improve the overall quality of education.

REFERENCES

- Agung Pambudi, B., & Gunawan, I. (2020). Instructional Leadership as an Effort to Increase Teacher Professionalism in the Industrial Revolution Era 4.0. *Advances in Social Science, Education and Humanities Research*, 381(CoEMA), 216–220. <https://doi.org/10.2991/coema-19.2019.43>
- Akib, E., Imran, M. E., Mahtari, S., Mahmud, M. R., Prawiyogy, A. G., Supriatna, I., & Ikhsan, M. H. (2020). A reflection on the implementation of a new curriculum in Indonesia: A crucial problem on school readiness. *IJORER: International Journal of Recent Educational Education*, 1(1), 39–57. <https://doi.org/10.1063/1.4995218>
- Alam, M. J., Haque, A. K. M. M., & Banu, A. (2021). Academic Supervision for Improving Quality Education in Primary Schools of Bangladesh: Concept, Issues and Implications. *Asian Journal of Education and Social Studies*, 14(4), 1–12. <https://doi.org/10.9734/ajess/2021/v14i330359>
- Alqahtani, A. S., Noman, M., & Kaur, A. (2021). Core leadership practices of school principals in the Kingdom of Saudi Arabia. *Educational Management Administration and Leadership*, 49(2), 321–335. <https://doi.org/10.1177/1741143220901857>
- Andić, D. (2020). Continuing professional development of teachers in Education for Sustainable Development—case study of the Republic of Croatia. *Teacher Development*, 24(2), 143–164. <https://doi.org/10.1080/13664530.2020.1719877>
- Annisa Luthfi Azzahra, & Fathoni, A. (2023). Application of the Sociodrama Learning Model to Optimize Collaboration in Civics Learning. *Journal of Education Research and Evaluation*, 7(1), 10–16. <https://doi.org/10.23887/jere.v7i1.55513>

- Ariyani, D., Suyatno, & Zuhaery, M. (2021). Principal's innovation and entrepreneurial leadership to establish a positive learning environment. *European Journal of Educational Research*, 10(1), 63–74. <https://doi.org/10.12973/EU-JER.10.1.63>
- Bafadal, I., Yusuf Sobri, A., Nurabadi, A., & Gunawan, I. (2019). Standards of Competency of Head of School Beginners as Leaders in Learning Innovation Ibrahim. *Advances in Social Science, Education and Humanities Research*, 382(Icet), 13–18. <https://doi.org/10.2991/icet-19.2019.4>
- Brandisauskiene, A., Cesnaviciene, J., Miciuliene, R., & Kaminskiene, L. (2020). What Factors Matter for the Sustainable Professional Development of Teachers Analysis from Four Countries. *Journal of Teacher Education for Sustainability*, 22(2), 153–170. <https://doi.org/10.2478/jtes-2020-0022>
- Brandt, J. O., Bürgener, L., Barth, M., & Redman, A. (2019). Becoming a competent teacher in education for sustainable development: Learning outcomes and processes in teacher education. *International Journal of Sustainability in Higher Education*, 20(4), 630–653. <https://doi.org/10.1108/IJSHE-10-2018-0183>
- Brown, E. L., Phillippo, K. L., Weston, K., & Rodger, S. (2019). United States and Canada pre-service teacher certification standards for student mental health: A comparative case study. *Teaching and Teacher Education*, 80, 71–82. <https://doi.org/10.1016/j.tate.2018.12.015>
- Estiani, S. W., & Hasanah, E. (2022). Principal's Leadership Role in Improving Teacher Competence. *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam*, 7(2), 229–241. <https://doi.org/10.31538/ndh.v7i2.2281>
- Fazilla, S., Bukit, N., & Sriadhi, S. (2023). Professional Competence of Prospective Elementary School Teachers in Designing Lesson Plans Integrating Project-Based Learning Models and TPACK. *Mimbar Sekolah Dasar*, 10(1), 226–239. <https://doi.org/10.53400/mimbar-sd.v10i1.54875>
- Fildzah, Y. (2020). Comparative Study of Competency and Certification of Special Education Teachers in Indonesia and Another Various Country. *IJDS Indonesian Journal of Disability Studies*, 7(1), 40–49. <https://doi.org/10.21776/ub.ijds.2019.007.01.5>
- Hanafi, Y., Taufiq, A., Saefi, M., Ikhsan, M. A., Diyana, T. N., Thoriquattyas, T., & Anam, F. K. (2021). The new identity of Indonesian Islamic boarding schools in the “new normal”: the education leadership response to COVID-19. *Heliyon*, 7(3). <https://doi.org/10.1016/j.heliyon.2021.e06549>
- Harrington, R. A., Driskell, S. O., Johnston, C. J., Browning, C. A., & Niess, M. L. (2019). Technological Pedagogical Content Knowledge. *Tpack*, 324–346. <https://doi.org/10.4018/978-1-5225-7918-2.ch016>
- Honig, M. I., & Rainey, L. R. (2019). Supporting principal supervisors: what really matters? *Journal of Educational Administration*, 57(5), 445–462. <https://doi.org/10.1108/JEA-05-2019-0089>
- Juharyanto, J., Sultoni, S., Arifin, I., Bafadal, I., Nurabadi, A., & Hardika, H. (2020). “Gethok Tular” as the Leadership Strategy of School Principals to Strengthen Multi-Stakeholder Forum Role in Improving the Quality of One-Roof Schools in Remote Areas in Indonesia. *SAGE Open*, 10(2). <https://doi.org/10.1177/2158244020924374>
- Karakose, T., Polat, H., & Papadakis, S. (2021). Exploring Teachers' Perspectives on the Role of Digital Leadership in the COVID-19 Pandemic and Tech Skills of School Leaders. *Sustainability*, 13(23).
- Karalis, T. (2020). Planning And Evaluation During Educational Disruption: Lessons Learned From Covid-19 Pandemic. *European Journal of Education Studies*, 7(4), 125–142. <https://doi.org/10.5281/zenodo.3789022>
- Karnati, N. (2019). Academic Supervision to Improve the Competence of Elementary School Teachers. *Australasian Journal of Educational Technology*, 35(1), 35–46.
- Kartini, Dewi, M., & Kristiawan Fitria, H. (2020). The Influence of Principal Supervision and Organizational Climate toward Teacher's Performance. *Electronic Research Journal of Social Sciences and Humanities*, 2(2), 172–187. www.eresearchjournal.com
- Kaso, N., Mariani, M., Ilham, D., Firman, F., Aswar, N., & Iksan, M. (2021). The Principal's Leadership: How to Improve the Quality of Teaching and Learning Process in State Junior High School of Luwu. *Jurnal Ad'ministrare*, 8(1), 49. <https://doi.org/10.26858/ja.v8i1.19126>
- Komalasari, H., Khairunisa, S., Sabaria, R., & Yetty, E. (2018). Sociodrama Method: Increasing the Relationship of Students Social Interaction in Dance Learning in Inclusive Classes. *International Conference on Arts and Design Education (ICADE 2018)*, 255, 36–40. <https://doi.org/10.2991/icade-18.2019.8>
- Komalasari, K., Arafat, Y., & Mulyadi, M. (2020). Principal's Management Competencies in Improving the Quality of Education. *Journal of Social Work and Science Education*, 1(2), 181–193. <https://doi.org/10.52690/jswse.v1i2.47>
- Lodhi, M. A., Sahar, A. H., Qayyum, N., Iqbal, S., & Shareef, H. (2019). Relationship of School Environment and English Language Learning at Government Schools. *Public Administration Research*, 8(1), 1. <https://doi.org/10.5539/par.v8n1p1>
- Madudili, & Geraldine, C. (2018). *Conducive Learning Environment: A Critical Necessity For Students' Academic Achievement In Nigeria*. 2010, 86–98.
- Meidiana, M., Ahmad, S., & Destiniar, D. (2020). Pengaruh Kompetensi Manajerial Kepala Sekolah Dan Supervisi Akademik Terhadap Kinerja Guru. *JMKSP (Jurnal Manajemen, Kepemimpinan, Dan Supervisi Pendidikan)*, 5(2), 112. <https://doi.org/10.31851/jmksp.v5i2.3754>
- Muliati, L., Asbari, M., Nadeak, M., Novitasari, D., &

- Purwanto, A. (2022). INTERNATIONAL JOURNAL OF SOCIAL AND MANAGEMENT STUDIES (IJOSMAS) Elementary School Teachers Performance: How The Role of Transformational Leadership, Competency, and Self-Efficacy? *International Journal of Social and Management Studies*, 3(1), 158–166. <https://www.ijosmas.org>
- Murkatik, K., Harapan, E., & Wardiah, D. (2020). The Influence of Professional and Pedagogic Competence on Teacher's Performance. *Journal of Social Work and Science Education*, 1(1), 58–69. <https://doi.org/10.52690/jswse.v1i1.10>
- Nabella, S. D., Rivaldo, Y., Kurniawan, R., Nurmayunita, Sari, D. P., Luran, M. F., Amirullah, Saputra, E. K., Rizki, M., Sova, M., Sidik, M., Nurhayati, & Wulandari, K. (2022). The Influence of Leadership and Organizational Culture Mediated by Organizational Climate on Governance at Senior High School in Batam City. *Journal of Educational and Social Research*, 12(5), 119–130. <https://doi.org/10.36941/jesr-2022-0127>
- Naidoo, P. (2019). Perceptions of teachers and school management teams of the leadership roles of public school principals. *South African Journal of Education*, 39(2), 1–14. <https://doi.org/10.15700/saje.v39n2a1534>
- Noor, I. H. M., Herlinawati, & Sofyaningrum, E. (2020). The academic supervision of the school principal: A case in Indonesia. *Journal of Educational and Social Research*, 10(4), 81–93. <https://doi.org/10.36941/JESR-2020-0067>
- Nurhayati, T., Masnun, M., Udin, T., & Arifuddin, A. (2019). Implementation of principal supervision as an effort to fulfill teacher administration at islamic elementary school. *Universal Journal of Educational Research*, 7(8), 1826–1831. <https://doi.org/10.13189/ujer.2019.070822>
- Park, J. H., Lee, I. H., & Cooc, N. (2019). The Role of School-Level Mechanisms: How Principal Support, Professional Learning Communities, Collective Responsibility, and Group-Level Teacher Expectations Affect Student Achievement. *Educational Administration Quarterly*, 55(5), 742–780. <https://doi.org/10.1177/0013161X18821355>
- Rostini, D., Zaeni Achmad Syam, R., & Achmad, W. (2022). The Significance of Principal Management on Teacher Performance and Quality of Learning. *AL-ISHLAH: Jurnal Pendidikan*, 14(2), 2513–2520. <https://doi.org/10.35445/alishlah.v14i2.1721>
- Rusdiana, A., Huda, N., Muin, A., & Kodir, A. (2020). The Effectiveness of Educational Supervision in Increasing the Teacher's Professional Competence in the Covid-19 Pandemic Period. *International Journal of Innovation, Creativity and Change.*, 14(5), 918–942.
- Sá, M. J., & Serpa, S. (2020). The covid-19 pandemic as an opportunity to foster the sustainable development of teaching in higher education. *Sustainability (Switzerland)*, 12(20), 1–16. <https://doi.org/10.3390/su12208525>
- Saihu, S. (2020). the Urgency of Total Quality Management in Academic Supervision To Improve the Competency of Teachers. *Edukasi Islami: Jurnal Pendidikan Islam*, 9(02), 297. <https://doi.org/10.30868/ei.v9i02.905>
- Şemin, F. K. (2019). Competencies of principals in ensuring sustainable education: Teachers' views. *International Journal of Evaluation and Research in Education*, 8(2), 201–212. <https://doi.org/10.11591/ijere.v8i2.18273>
- Suchyadi, Y., Mirawati, M., Anjaswuri, F., & Destiana, D. (2022). Supervisi Akademik Dalam Meningkatkan Kompetensi Guru Sekolah Dasar. *Jurnal Manajemen Pendidikan*, 10(1), 67–71. <https://doi.org/10.33751/jmp.v10i1.6155>
- Sunaryo, Y. (2020). Academic Supervision of School Principals and Teacher Performance: A Literature Review. *International Journal Pedagogy of Social Studies*, 5(2), 17–34.
- Tyarakanita, A., Drajadi, N. A., Rochsantiningsih, D., & Nurkamto, J. (2021). The Representation of Gender Stereotypes in Indonesian English Language Textbooks. *Sexuality and Culture*, 25(3), 1140–1157. <https://doi.org/10.1007/s12119-021-09813-0>
- Xin, F., & Yun, Z. (2021). Investment Risk, Information Disclosure, and Market trust—Based on trust game experiment research. *International Journal of English Literature and Social Sciences*, 6(1), 1–481. <https://doi.org/10.22161/ijels>
- Zaini, M. F., & Syafaruddin, S. (2020). The Leadership Behavior of Madrasah Principals in Improving the Quality of Education in MAN 3 Medan. *Jurnal Iqra' : Kajian Ilmu Pendidikan*, 5(2), 95–106. <https://doi.org/10.25217/ji.v5i2.649>