

The Relationship between the Use of Website-Based Child Learning Outcome Reports and Academic Supervision in Early Childhood Education (PAUD)

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ABSTRACT

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One form of evidence of technological advancement in the field of education is marked by the emergence of the implementation of website-based learning outcome reports, which facilitate educators and educational staff in accessing and managing children's learning outcomes more flexibly. However, it has not been significantly evident whether this implementation is associated with early childhood education (PAUD) management, particularly academic supervision. This article was prepared and initiated with the aim of determining the relationship between website-based learning outcome reports and academic supervision in PAUD. The study was designed using a non-parametric statistical design as a quantitative research method. The research sample was taken from educators and educational staff at one PAUD

institution. The data collection technique used was a questionnaire employing a 1–4 Likert scale model. The bivariate data analysis applied was the Kendall's Tau correlation test using SPSS 26. The results obtained from a total of 8 respondents with 18 questionnaire items indicate that the relationship between learning outcome reports and academic supervision is at a percentage of 16.6% based on the Kendall's Tau test. The calculated correlation coefficient (r) of 0.408 indicates a moderate level of correlation. The significance test shows a p -value of $0.178 > 0.05$ ($\alpha = 0.05$), thus H_a is accepted and H_o is rejected. Therefore, it can be concluded that there is a positive relationship with a moderate level between website-based learning outcome reports and academic supervision in early childhood education (PAUD).

Introduction

Improving the quality of learning in early childhood education (PAUD) cannot be separated from the assessment process, because assessment plays an important role in providing information for educators regarding children's development. Assessment itself is a decision-making process based on aspects and indicators that have been systematically and periodically determined, derived from learning activities and learning outcomes of students, which subsequently become factual information (Matondang, Z., Djulia, E., Sriadhi, S., & Simarmata, J., 2019). Thus, assessment serves as a benchmark in determining the success of learning undertaken by students and

becomes a reference in making crucial decisions such as curriculum development, annual programs, and institutional policies (Nasution, 2022).

The assessment process conducted by educators is carried out after collecting information from various sources, which is then compiled into children's learning outcome reports that have been regulated within PAUD standards. At the PAUD level, assessment techniques do not use oral or written tests, but are adjusted to the characteristics and developmental stages of children. Several conventional assessment techniques commonly applied include anecdotal records, child portfolios, work products, checklists, observations, and documentation (McTighe, J., Wiggins, G., Warso, A. W. D. D., Zahroh, S. H., Parno, Mufti, N., & Anggraena, Y., 2017). However, unfortunately, such assessment systems still have shortcomings and often create obstacles. Wardana (2025) also added issues such as errors and delays in data processing, risks of losing reporting documents, and inefficiencies in inputting report results.

Rahmat and Hafid (2023) as well as Maimanah and Unggara (2025) added that the existence of digital report cards brings positive changes to the management of student learning outcome data entry. This digital report card innovation is considered to have more optimal and accurate performance compared to conventional report cards. This influence is expected to drive further development and increased effectiveness of

digital report cards, thereby providing excellent and well-targeted services for students, homeroom teachers, and parents.

In line with the increasingly rapid development of the times, the need for technology and information in the field of education has a very significant impact on educators in obtaining real-time and accurate information, thus providing greater ease for users to access the internet anytime and anywhere. According to Gusti et al. (2020), this advancement has contributed to innovations in transforming children's learning outcome reports into website-based systems. This website-based reporting system provides various conveniences, whereby teachers can conduct daily assessments based on indicators, perform comprehensive recapitulation of assessments, establish assessment references, and generate reports on children's educational development (report cards).

Furthermore, school principals are able to routinely and periodically monitor the results of daily assessment recapitulations, validate student developmental achievement report cards, and verify academic information. Meanwhile, parents obtain transparency regarding students' daily assessments and academic information through the website on a regular basis.

On the other hand, academic supervision is assumed to have a relationship with website-based learning outcome reports, as it requires systematic data as a benchmark for learning quality within an

institution and as a basis for providing guidance to educators. Academic supervision, according to Glickman (2022), is a series of activities that assist teachers in developing their abilities to manage the learning process in order to achieve instructional objectives. The role of supervision is crucial for teacher professionalism and development. Acheson and Gail Anhusadar (2020) revealed that supervision helps minimize the gap between actual teaching behavior and ideal teaching behavior, provides teachers with many new ideas, and improves their performance to align with educational needs and developments. Through an organized and optimal website-based learning outcome reporting process, the quality of academic supervision can be enhanced, as it facilitates supervisor access and minimizes recording errors.

Methods

This study employed a non-parametric quantitative research approach with a correlational research design. The research was conducted at one Early Childhood Education (PAUD) institution in the Bogor area from Wednesday, November 12, 2025, to Monday, December 1, 2025, involving a sample of 8 respondents.

The sampling technique applied was non-probability sampling with specific determination using purposive sampling. The selection of this technique was based on the research segmentation, which focused on educators and educational staff who integrate website-based systems into children's learning outcome reports at the institution.

The instrument used for data collection was a questionnaire. The questionnaire consisted of 18 items and employed a four-point Likert scale, namely: Strongly Disagree, Disagree, Agree, and Strongly Agree.

The data collected for this study were obtained through an online instrument using the Google Forms platform. This survey aimed to evaluate two research variables. The data analysis was conducted using the Kendall's Tau test in SPSS version 26. Kendall's Tau is a non-parametric measure of association based on the difference between the probability of concordance and discordance between two observed variables, X and Y (El-hashash et al., 2022).

In this study, Variable X represents website-based learning outcome reports, while Variable Y represents academic supervision in PAUD. This test is commonly used as a distribution-free measure for cross-correlation between two variables. The Kendall's Tau correlation coefficient is used to analyze the relationship between two ordinal variables and has assumptions similar to those of Spearman's rank correlation.

Result and Discussions

This study involved eight respondents aged between 18 and 50 years. All respondents held diverse roles within the PAUD institution, including owner, administrative staff, teachers, and system developers. This diversity of roles provides a comprehensive overview of the utilization of website-based learning outcome reports within the

institutional environment. In addition, the majority of respondents reported a relatively high frequency of access to learning outcome reports, ranging from daily access to several times per week. This condition indicates that website-based reports have become an integral part of the daily work routines of educators and educational staff.

Table 1. Results of the Kendall's Tau Test

		<i>Correlations</i>	
		X	Y
Kendall's tau_b	X	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	8
	Y	Correlation Coefficient	0.408
		Sig. (2-tailed)	0.187
		N	8

A non-parametric Kendall's Tau (τ) correlation test was conducted to examine the relationship between the frequency of use of website-based child learning outcome reports (Variable X) and the quality of academic supervision in PAUD (Variable Y). The results indicate a correlation coefficient of $\tau = 0.408$ with a sample size of $n = 8$.

Direction and Strength of the Relationship

The positive value of the correlation coefficient ($\tau = +0.408$) indicates a positive direction of relationship with a moderate level of strength. Descriptively, this finding suggests that an increase in the

frequency of utilization of digital learning outcome reports tends to be associated with an improvement in the quality of academic supervision within the PAUD environment.

Statistical Significance

The obtained significance value is $p = 0.187$. Since $p > 0.05$ (95% significance level), the identified correlation is not statistically significant. This means that, within the sample used, there is insufficient empirical evidence to reject the null hypothesis (that there is no relationship between Variables X and Y). The inability of the statistical test to detect a significant correlation is believed to be caused by methodological limitations, particularly the very small sample size ($n = 8$). A limited sample size reduces statistical power, so even though a moderate relationship is descriptively indicated, the result cannot be generalized to the population (Zahro, 2015).

Although the results are not statistically significant, the positive direction of the relationship ($\tau = 0.408$) is consistent with the theoretical framework regarding the role of technology in educational data management and quality supervision.

Assessment or evaluation is a fundamental component in the implementation of PAUD, serving to provide comprehensive information regarding children's development (Matondang, Z., Djulia, E., Sriadhi, S., & Simarmata, J., 2019). Data on children's development, encompassing moral, social-emotional, physical-motor, language,

cognitive, and artistic aspects, are manifested in learning outcome reports. These reports play a vital role as a communication medium between teachers, parents, and institutional stakeholders (Kemdikbudristek, 2022).

The implementation of manual learning outcome reporting often encounters challenges such as inefficiency, risk of data loss, and low accuracy and speed of analysis. In line with technological advancements, website-based digital reporting offers an effective solution. Various studies have demonstrated that digital reports significantly improve administrative efficiency, accuracy in data processing, and the quality of information services provided to parents (Maimanah & Unggara, 2025).

The quality of academic supervision is highly dependent on the availability of accurate, systematic, and easily accessible learning data. Website-based learning outcome reports serve as a rich source of information that facilitates the supervision process. Supervisors are able to review children's developmental data efficiently, enabling them to:

- Provide accurate and evidence-based feedback to teachers;
- Evaluate the effectiveness of implemented instructional methods;
- Monitor follow-up actions from previous supervisory recommendations in a more systematic manner.

Therefore, although not statistically significant, the positive

direction of the relationship found in this study reinforces the theory that the adoption of digital technology in learning outcome reporting has the potential to support and enhance the effectiveness of academic supervision at the PAUD level. However, the implementation of such systems also requires adequate ICT literacy among teachers to ensure data accuracy and system optimization (Tobondo & Putra, 2022).

These findings imply that data digitalization has the potential to become an important strategy in improving the quality of monitoring and evaluation in PAUD (Kurniati et al., 2021). Considering the limitations of this study, it is recommended that future research conduct replication with a larger sample size to increase statistical power and external validity. In addition, future studies should expand variable indicators by developing more comprehensive instruments to measure Variable X, not only in terms of frequency but also the intensity and quality of data utilization by teachers. Furthermore, incorporating teacher digital literacy as a moderating variable is recommended to analyze its role in strengthening or weakening the relationship between website-based learning outcome reporting and the quality of academic supervision in PAUD, thereby producing a deeper and more comprehensive understanding (Faizah et al., 2022).

Conclusion

The results of this study indicate that the use of website-based learning outcome reports has a moderate and positive relationship with

the improvement of academic supervision quality in early childhood education (PAUD). This interpretation is based on the Kendall's Tau coefficient value of $\tau = 0.408$, which indicates a positive correlation with moderate strength. This finding suggests that the effectiveness of implementing website-based student learning outcome reports, when used routinely, has the potential to provide a meaningful impact on the quality of academic supervision within the institution.

However, the significance value of $p = 0.187$ ($p > 0.05$) indicates that the relationship is not yet statistically significant. This condition is caused by the very small sample size of only 8 respondents, meaning that the results of this study cannot yet be applied to a broader context. Nevertheless, the consistent positive direction of the relationship aligns with theoretical perspectives, providing evidence that digitalization in student learning outcome reporting is closely related to efforts to improve the quality of academic supervision in PAUD.

Therefore, future research is recommended to involve a larger sample size, expand variable indicators, and incorporate teacher digital literacy as a moderating variable, so that the relationship between website-based child learning outcome reports and academic supervision in PAUD can be understood in a deeper and more comprehensive manner.

References

Matondang, Z., Djulia, E., & Simarmata, J. (2019). Evaluasi Hasil Belajar. McTighe, J., Wiggins, G., Warso, A. W. D. D., Zahroh, S. H., & Parno, M.

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- (2017). N., & Anggraena, Y.". *Pembelajaran dan Penilaian*.
- Rahmat, E., & Hafid, E. (2023). PENERAPAN APLIKASI RAPOR DIGITAL MADRASAH (ARDM) PADA PELAPORAN HASIL BELAJAR PESERTA DIDIK. *Nazzama: Journal of Management Education*, 3(1), 69-83.
- Kemdikbudristek. (2022). Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Nomor 5 Tahun 2022 tentang Standar Kompetensi Lulusan pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah.
- Anhusadar, L. O., (2020). *Volume 13 No. 1, 2020*. 13(1), 34–45.
- El-hashash, E. F., Hassan, R., & Shiekh, A. (2022). *A Comparison of the Pearson , Spearman Rank and Kendall Tau Correlation Coefficients Using Quantitative Variables 2 Materials and Methods*. 20(3), 36–48. <https://doi.org/10.9734/AJPAS/2022/v20i3425>
- Faizah, U., Ula, I., Solihah, N., & Purwanto, S. (2022). *Pengembangan Raport Digital Untuk Pelaporan Hasil Asesmen Perkembangan Anak Usia Dini Journal of Islamic Early Childhood Education*. 3(2), 37–53.
- Glickman, C. (2022). *Much , But Maybe I Haven ' t Said Enough Developing a Super-Vision of Education : Oh , No . I ' ve Said Too Much , But Maybe I Haven ' t Said Enough*. 4(3).
- Gusti, P. S., Krisnanik, E., Isnainiyah, I. N., Studi, P., Informasi, S., Komputer, F. I., & Bermain, K. (2020). *SISTEM INFORMASI PERKEMBANGAN PENDIDIKAN PADA ANAK USIA DINI (AUD) BERBASIS WEB PADA TAMAN KANAK- KANAK (TK) YAYASAN AL MUALLAFAH*. 679–692.
- D. Wardana., (2025). *APLIKASI RAPOR DIGITAL DALAM PENILAIAN HASIL BELAJAR SISWA BERBASIS WEBSITE DI TAMAN KANAK-KANAK / TAMAN PENDIDIKAN AL-QURAN AS-SALAM KOTA PALEMBANG*.
- Kurniati, E., Lestari, M., Aprilianti, L., & Febiyanti, A. (2021). *Digitalisasi Sistem Informasi Program Studi Pendidikan Anak Usia Dini untuk Meningkatkan Efektivitas dan Efisiensi Pengelolaan Data Digitalization of Sistem Informasi at Early Childhood Program to Increase the Effectiveness and Efficiency of Data Management*. 8(2), 105–119.
- Maimanah, K. T., & Unggara, I. (2025). *Sistem Raport Online Di Madrasah*

Tsanawiyah Al Mumtaz Berbasis Web. 7(1), 190–198.

Nasution, S. W. (2022). *Assesment Kurikulum Merdeka Belajar Di Sekolah Dasar*. 1, 135–142. <https://doi.org/10.34007/ppd.v1i1.181>

Tobondo, Y. A., & Putra, S. R. (2022). *Jurnal Pandelo ' e Peran Digitalisasi dalam Meningkatkan Kualitas Pembelajaran di PAUD : Tinjauan Literatur dari Perspektif Indonesia Jurnal Pandelo ' e*. 2(2), 50–61.

Zahro, I. F., (2015). *Penilaian dalam Pembelajaran Anak Usia Dini*. 1(1), 92–111.