

## **INFLUENCE OF GTK ROOM APPLICATION QUALITY ON MOTIVATION PERFORMANCE, AND COMPETENCE OF PHYSICAL EDUCATION TEACHERS IN SURABAYA JUNIOR HIGH SCHOOLS**

**Ita Sri Rokhmawati<sup>1)\*</sup>, Budi Purwoko<sup>2)</sup>, Mufarrihul Hazin<sup>3)</sup>,  
Muhammad Sholeh<sup>4)</sup>, Nunuk Hariyati<sup>5)</sup>**

<sup>1234</sup> Department of Master Educational Management Study Program, Faculty of Educational Sciences  
Universitas Negeri Surabaya, Indonesia

Email correspondent:

[24010845127@mhs.unesa.ac.id](mailto:24010845127@mhs.unesa.ac.id)

The purpose of this study was to analyze the effect of the quality of the Ruang GTK application on improving the motivation, performance, and competence of Physical Education teachers. This study uses a quantitative approach with a correlational survey method. The population is physical education teachers totaling 98 people and a sample of respondents as many as 78 people. The data in this study were collected using a Likert scale questionnaire. Data were analyzed using SPSS and SEM statistical software. The results showed that the quality of the Ruang GTK application had a significant effect on improving the motivation, performance, and competence of Physical Education teachers, with the average value of each variable in the high category and low standard deviation. Multiple regression analysis showed that 62.7% of the variation in the three variables was explained by the quality of the application, with high significance ( $p < 0.001$ ). Individually, application quality most strongly influenced motivation ( $\beta = 0.52$ ), followed by performance ( $\beta = 0.48$ ) and competence ( $\beta = 0.46$ ), all of which were statistically significant. Further research is recommended to explore the long-term impact of this application, explore its integration with other platforms, and compare its effectiveness across subjects to strengthen the comprehensive and sustainable development of teacher competencies.

**Keywords:** gtk space application; increasing motivation; performance; competence; physical education teachers

## **PENGARUH KUALITAS APLIKASI RUANG GTK TERHADAP KINERJA MOTIVASI, DAN KOMPETENSI GURU PENDIDIKAN JASMANI DI SMP SURABAYA**

### **ABSTRAK**

*Tujuan penelitian ini adalah untuk menganalisis pengaruh kualitas aplikasi Ruang GTK terhadap peningkatan motivasi, kinerja, dan kompetensi guru Pendidikan Jasmani. Penelitian ini menggunakan pendekatan kuantitatif dengan metode survei korelasional. Populasi guru pendidikan jasmani berjumlah 98 orang dan sampel responden sebanyak 78 orang. Data dalam penelitian ini dikumpulkan dengan menggunakan kuesioner skala Likert. Data dianalisis menggunakan perangkat lunak statistik SPSS dan SEM. Hasil penelitian menunjukkan bahwa kualitas aplikasi Ruang GTK berpengaruh signifikan terhadap peningkatan motivasi, kinerja, dan kompetensi guru Pendidikan Jasmani, dengan nilai rata-rata masing-masing variabel pada kategori tinggi dan standar deviasi rendah. Analisis regresi berganda menunjukkan bahwa 62,7% variasi pada ketiga variabel tersebut dijelaskan oleh kualitas aplikasi, dengan signifikansi yang tinggi ( $p < 0,001$ ). Secara individual, kualitas aplikasi paling kuat mempengaruhi motivasi ( $\beta = 0,52$ ), diikuti oleh kinerja ( $\beta = 0,48$ ) dan kompetensi ( $\beta = 0,46$ ), yang semuanya signifikan secara statistik. Penelitian lebih lanjut direkomendasikan untuk mengeksplorasi dampak jangka panjang dari aplikasi ini, mengeksplorasi integrasinya dengan platform lain, dan membandingkan efektivitasnya di seluruh mata pelajaran untuk memperkuat pengembangan kompetensi guru yang komprehensif dan berkelanjutan.*

**Keywords:** aplikasi ruang gtk; peningkatan motivasi; kinerja; kompetensi; guru pendidikan jasmani

## **INTRODUCTION**

The rapid development of information and communication technology has had a significant impact on the world of education. One of the innovations in the field of education in Indonesia is the use of digital applications that support the management and development of educators, such as the

Ruang GTK application which is designed to facilitate teachers in terms of administration, reporting, and competency development. In the midst of increasingly high demands for quality education, teachers are expected not only to master their fields of knowledge, but also to have motivation, performance, and professional competence that continues to develop. Especially for Physical Education teachers whose role is crucial in shaping the character and health of students. Therefore, it is important to understand the extent to which the quality of the Ruang GTK application can contribute to increasing the motivation, performance, and competence of physical education teachers, especially in the junior high school environment in Surabaya.

Various studies have shown that the use of digital platforms such as the GTK room makes a significant contribution to improving the quality of teachers and education personnel Amin et al., (2025) in his research stated that the use of the gtk space platform plays a role in providing broad access to various learning resources, independent training, and teacher performance reporting, which ultimately has an impact on increasing the professional competence of teachers in schools. Information technology has an important role in gtk management, especially in the context of educational units at the junior high school level (Dinata et al., 2024). On the other hand, Supriati & Astuti, (2025) focused his study on teacher performance assessment through the PMM/GTK room platform at SMP Negeri 2 Pamotan, and the results showed that the implementation of a digital-based system was very helpful in the process of evaluating and developing teacher performance objectively and in a structured manner.

Not only that, Paradise, (2023) also examines the implementation of the gtk data collection system through the a-gtk application at state vocational school 3 probolinggo, which facilitates the management of employee data accurately and efficiently. Meanwhile, Cahyaningsih et al., (2020) emphasizes the importance of gtk professional development strategies in improving the quality of education, where technology is an important catalyst in the process. This shows that the quality of the application system greatly influences teacher motivation, performance, and competency development.

The use of information technology in the world of education has become the main focus of many studies, especially related to teacher management systems and improving the professionalism of educators. Several previous studies, such as by (Lestari et al., 2021; Nur'Aliimu et al., 2025) have shown that digital applications in education can improve administrative efficiency and positively influence teacher work motivation. However, these studies are generally general in nature and have not specifically examined the quality of the gtk room application as an instrument that influences important aspects such as teacher motivation, performance, and competence, especially in the subject of Physical Education.

Although many studies have been conducted on the role of technology in education, there are still few studies that specifically examine the effect of the quality of the gtk room application on the dimensions of motivation, performance, and competence of physical education teachers simultaneously, especially in the context of public junior high schools in Surabaya. Most previous studies are still general in nature and have not explored in depth the contribution of this application to teachers of certain subjects. The main difference between this study and previous manuscripts lies in the more specific subject and more focused approach. This study focuses on physical education teachers in public junior high schools in Surabaya, who have tended to receive less attention in the context of digital-based professional development. In addition, the measurement instrument in this study adapts the information system quality framework from the Delone & McLean (2003) model, which is combined with a measurement instrument for work motivation and teacher competence based on national standards. In terms of method, this study uses a quantitative approach with path

analysis techniques to simultaneously measure the direct and indirect effects of application quality on three main variables: teacher motivation, performance, and competence.

The quality of an information system can be measured through dimensions such as usability, reliability, efficiency, and user satisfaction (Purwadi, 2023). Teacher work motivation is influenced by intrinsic and extrinsic factors, including the work environment and technological support (Anggraeni et al., 2022). Meanwhile, teacher performance and competence, according to Law no. 14 of 2005 concerning teachers and lecturers, are closely related to mastery of materials, learning methodologies, and professional skills that can be improved through technology-based training. These findings justify the importance of evaluating the effectiveness of the gtk room application in supporting comprehensive teacher development.

The urgency of this research lies in the importance of building a teacher development system that is not only administrative, but also transformative. In the context of the independent curriculum and improving the quality of national education human resources, teachers are required to be more adaptive, innovative, and professional. The GTK room application is one of the potential digital interventions, but its effectiveness in improving teacher performance, especially physical education teachers who have different task characteristics from academic subject teachers, has not been widely studied. Thus, the results of this study are very important for policy makers and system developers to optimize applications according to the real needs of teachers in the field.

In terms of contribution, this study presents novelty in terms of context, subject, and analysis design. Not only does it fill the gap in the literature on the influence of GTK space applications on physical education teachers, but it also offers a quality measurement model for applications that can be replicated in other types of teachers or regions. The findings of this study are expected to be the basis for improving the design of educational information systems that are more responsive to the needs of teacher professionalism, as well as being a reference for the development of data-based education policies.

The main objective of this study is to empirically analyze the effect of the quality of the gtk space application on improving the motivation, performance, and competence of physical education teachers. With this approach, the study not only identifies the relationship between variables, but also provides a deeper picture of the mechanism of the influence of technology quality on teacher performance as a whole.

## METHOD

This study uses a quantitative approach with a correlational survey method.(Darwin et al., 2021). This method was chosen because it is able to describe the relationship between variables objectively based on numerical data from respondents. The population in this study were all physical education teachers who teach at junior high schools in the city of Surabaya. Based on data from the Surabaya city education office, there are around 98 active physical education teachers spread across junior high schools. This study used the proportional stratified random sampling technique, to ensure an even distribution of samples from various administrative areas of the city. From this population, a sample of 78 respondents was taken, or around 80% of the population. This number is sufficient to meet the minimum standard for path analysis, and considers a margin of error of 5%.

The design of this study is non-experimental with a descriptive-verification approach. The study was conducted through a survey using a closed questionnaire distributed to respondents online and offline. The questionnaire includes three main groups of indicators: application quality (usability, reliability, service quality), work motivation (Sunarya, 2022), performance (based on the Minister of

National Education Regulation), and competence (referring to national teacher competency standards).

The data in this study were collected using a Likert scale questionnaire with a range of 1 (strongly disagree) to 5 (strongly agree) (Sukmawati, 2024). The questionnaire instrument was validated through two stages: content validity and empirical validity and reliability. Content validity was conducted by two education experts and one educational technology expert. After that, a pilot test was conducted on 20 physical education teachers outside the main sample. Empirical validity was tested using Pearson product moment. The results showed that all items had a significant correlation with the total score of the construct. Reliability was tested using Cronbach alpha, and all constructs showed a value of  $\geq 0.7$ . This indicates a reliable instrument.

Data were analyzed using SPSS and SEM statistical software. The analysis began with classical assumption tests, including normality, multicollinearity, and heteroscedasticity. After the data was declared eligible, path analysis was conducted to test the causal relationship model between application quality and dependent variables: teacher motivation, performance, and competence. In addition, a significance test of direct and indirect effects was conducted, as well as a determination coefficient analysis to determine how much the independent variables contributed to the dependent variable.

**Table 1. GTK Space Application Quality Questionnaire**

No	Statement
1	The GTK Space application is easy to use and has a user-friendly interface.
2	The information displayed in the application is accurate and reliable.
3	The application can be accessed at any time and rarely experiences technical problems.
4	The application provides responsive support services when problems occur.
5	The menus and features in the application suit my work needs as a Physical Education teacher.

**Table 2. Teacher Work Motivation Questionnaire**

No	Statement
1	Using the Ruang GTK application increases my satisfaction with my work as a teacher.
2	I feel professionally valued for being able to make optimal use of the application.
3	I am motivated to continue improving my competence after using this application.
4	The application gives me greater confidence in carrying out my teaching duties.
5	The application makes it easier for me to achieve administrative targets and learning planning.

**Table 3. Performance and Competence of PHYSICAL EDUCATION Teachers**

No	Statement
1	It is easier for me to prepare lesson plans and teaching materials with the help of applications.
2	I feel my professional competence has increased through self-development features.
3	The app helps me access teacher training and activity information more quickly.
4	I am more disciplined in carrying out tasks because of digital monitoring through the application.
5	I feel more prepared and confident in teaching after using this app.

## RESULTS AND DISCUSSION

In general, the results of the study indicate that the quality of the Ruang GTK application has a significant effect on increasing the motivation, performance, and competence of physical education teachers. The quality of the system, the quality of information, and the quality of service of this application are important factors that encourage more active teacher involvement in professional development and in carrying out teaching duties.

**Table 4. Descriptive Statistics of Research Variables (N = 78)**

No	Variables	Average	Standard Deviation	Category
1	GTK Space Application Quality	4.22	0.48	Tall
2	Teacher Motivation	4.10	0.51	Tall
3	Teacher Performance	4.05	0.53	Tall
4	Teacher Competence	4.08	0.50	Tall

Based on Table 4, all research variables show high average values, namely: the quality of the Ruang GTK application with an average score of 4.22, teacher motivation 4.10, teacher performance 4.05, and teacher competence 4.08. The relatively small standard deviation value (around 0.48–0.53) indicates that the respondents' answers are quite consistent and concentrated on high scores, indicating that the majority of teachers assess the quality of the application and other related aspects positively.

**Table 5. Results of Multiple Regression Analysis**

Dependent Variable	R <sup>2</sup>	F Count	Sig. (p)	Information
Motivation, Performance, and Competence	0.627	41.52	< 0.001	Significant (p < 0.05)

Table 2 shows the results of multiple regression tests indicating that the quality of the Ruang GTK application simultaneously has a significant effect on teacher motivation, performance, and competence with a coefficient of determination (R<sup>2</sup>) of 0.627. This means that around 62.7% of the variation in teacher motivation, performance, and competence can be explained by the quality of the application. The calculated F value of 41.52 with a significance level <0.001 indicates that the regression model used is very statistically significant.

**Table 6. Regression Coefficients for Each Variable**

Dependent Variable	Beta Coefficient (β)	Sig. (p)	Information
Motivation	0.52	0,000	Significant
Performance	0.48	0.001	Significant
Competence	0.46	0.002	Significant

Table 3 shows the individual effects of application quality on each dependent variable. The highest beta coefficient is found in the motivation variable ( $\beta = 0.52$ ;  $p = 0.000$ ), followed by performance ( $\beta = 0.48$ ;  $p = 0.001$ ), and competence ( $\beta = 0.46$ ;  $p = 0.002$ ). All variables have a significance value below 0.05, indicating that application quality positively and significantly improves physical education teachers' motivation, performance, and competence.

This finding strengthens DeLone and McLean's theory.(Andriyani et al., 2024; Marbun et al., 2025), which states that good quality information systems can have a positive impact on user satisfaction and net benefits. The Ruang GTK application shows that when the system is easy to use, informative, and responsive, teachers are more motivated and feel helped in carrying out their professional duties.

Furthermore, from a motivational perspective, these results also strengthen Herzberg's theory of two motivational factors, where good system support is included in the motivator category.(Puspita, 2022; Yashak et al., 2020). Teachers feel appreciated and facilitated by easy access to personnel data, training, and performance management. This result is also supported by a study from(Siregar et al., 2022), which states that digitalization of teacher administration increases teacher enthusiasm and self-confidence in teaching and learning activities.

In terms of performance and competence, this application not only acts as an administrative reporting tool, but also as a means of professional development. Features such as attendance tracking, online training, and SKP data updates are forms of systemic intervention that improve teacher work behavior. This is a new finding that has not been widely revealed in previous studies, especially in the context of physical education teachers who are often considered less touched by educational technology innovations than teachers of other subjects.

However, this study also has limitations. First, it focuses only on physical education teachers in junior high schools in Surabaya City, so generalization of the results to other levels or regions must be done with caution. Second, external variables such as school culture, principal policies, and ICT infrastructure have not been studied in depth as intervening factors. Therefore, further research needs to consider these contextual aspects and develop more complex models.

This research contributes in two important ways. First, practically, these results serve as input for the Education Office and application developers to continue to improve Ruang GTK, especially to support data- and technology-based Physical Education learning. Second, theoretically, this research enriches the literature on the adoption of information technology in the teaching profession, and provides empirical evidence that technology not only helps administration, but also affects the psychological and professional dimensions of teachers.

The Ruang GTK application is a digital platform designed by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) to improve the effectiveness of teacher and education personnel management in Indonesia. The quality of this application includes various aspects such as ease of use, system reliability, information accessibility, and feature relevance to the professional needs of teachers. For Physical Education teachers, the existence of this application can be a support in learning planning, performance reporting, and continuous self-competency development.

Teacher motivation in carrying out professional tasks is greatly influenced by system support and the work environment. The Ruang GTK platform provides direct access to teachers to view professional track records, certification, training, and performance evaluations. This is in accordance with the findings (Amin et al., 2025) which shows that the use of the GTK platform has a positive effect on teacher motivation because it gives them space for actualization and reflection on competence.

Ease of access to personal data and the opportunity to participate in online training increase teachers' enthusiasm for self-development. Moreover, in dynamic physical education learning, teachers really need a platform that can provide feedback on their activities and achievements. According to Mulyadi & Anhar, (2022), digital literacy of teachers developed through online media such as Ruang GTK can increase professional awareness and responsibility.

Teacher performance not only measured from teaching ability, but also from learning administration, curriculum development, and activeness in training. The GTK application has features that support performance reporting based on credit points and participation in the Merdeka Belajar program. The GTK data collection system in secondary schools can make it easier for teachers to fill in data, report, and assess performance (Paradise 2023).

In line with that, (Saidah & Mahmudah, 2023) emphasizes that the integration of technology in educational assessments such as ANBK has an effect on the regularity and clarity of the teacher's role, including in 21st century skills-based teaching. This is certainly very relevant for physical education teachers who play a role in developing the character, discipline, and sportsmanship of students.

Teacher competencies include pedagogical, professional, social, and personality competencies. The GTK platform provides various online training, webinars, and access to learning modules that can strengthen these competency aspects. Research by (Rafli et al., 2024) shows that performance assessments based on the GTK platform are effective in mapping teachers' strengths and weaknesses, so that the training they receive becomes more focused. Gumilar et al., (2024) also stated that the Teacher Mover program integrated into the GTK platform has a great influence on efforts to create quality educators. In addition, documentation of good teacher practices, such as those carried out by (Saputera et al., 2022) in Bengkulu, it is an inspiration for physical education teachers to continue to improve their competence.

The involvement of physical education teachers in strengthening the Pancasila Student Profile (P5) can also be supported through GTK. (Yasmansyah & Sesmiarni, 2022) emphasized that educators' readiness for independent curriculum projects is largely supported by access to information and training from the GTK system. However, there are still challenges in using GTK applications such as limited technological infrastructure in schools, lack of technical training, and internet network constraints. Evaluation of (Kasman, 2019) mentioned that the success of digital system-based programs is highly dependent on the readiness and support of a holistic education system, including data security and policy support. It is also important to improve teachers' digital literacy, as mentioned by (Arzfi et al., 2024), so that teachers do not only become users but also content producers and innovators in digital learning.

## CONCLUSION (Conclusion)

The quality of the Ruang GTK application has been proven to have a significant effect on increasing motivation, performance, and competence of Physical Education teachers at SMPN Kota Surabaya. This application not only functions as an administrative tool, but also as a professional development medium that encourages teachers to continue learning and improving themselves through online training features, performance assessments, and documentation of good practices. Optimal utilization can create a reflective and adaptive work culture to curriculum changes. However, its implementation still faces obstacles such as lack of technical training, low digital literacy, and limited ICT infrastructure in several schools. Therefore, institutional support is needed through ongoing training, improving digital facilities, and intensive coaching from the education office. In the future, further research is recommended to explore the long-term influence of this application, explore its integration with other platforms, and compare its effectiveness between subjects in order to strengthen the development of teacher competence comprehensively and sustainably.

## REFERENCES

- Amin, A. A., Yusuf, F., & Pada, A. (2025). Pengaruh Pemanfaatan Platform Ruang Gtk (Guru Dan Tenaga Kependidikan) Terhadap Kompetensi Profesional Guru Sekolah *Pendas: Jurnal Ilmiah Pendidikan*
- Andriyani, N. I., Saputra, M. C., & Aknuranda, I. (2024). Evaluasi Keberhasilan Sistem E-Learning Brone Menggunakan Model Delone and Mclean dan Teori Self-Determination. In *Jurnal Pendidikan dan Teknologi Indonesia* (Vol. 4, Issue 11, pp. 507–524). Infinite Corporation. <https://doi.org/10.52436/1.jpti.511>
- Anggraeni, A., Haryati, T., & Sudana, I. M. (2022). Pengaruh Supervisi Akademik, Motivasi Guru Dan Kinerja Guru Terhadap Mutu Sekolah Di Sekolah Dasar Kecamatan Mranggen Kabupaten Demak. In *Jurnal Manajemen Pendidikan (JMP)* (Vol. 11, Issue 1). Universitas PGRI Semarang. <https://doi.org/10.26877/jmp.v11i1.14071>

- Arzfi, B. P., Montessori, M., & Rusdinal, R. (2024). Implementasi Proyek Penguatan Profil Pelajar Pancasila (P5) Pembentuk Pendidikan Karakter Dalam Kurikulum Merdeka Di Sekolah. *Dharmas Education Journal (DE\_Journal)*, 5(2 SE-Articles), 747–753. <https://doi.org/10.56667/dejournal.v5i2.1405>
- Cahyaningsih, U., Rianto, A., & Wahyuningsih, A. (2020). Penerapan Model Pembelajaran Student Team Achievement Division (Stad) Untuk Meningkatkan Pemahaman Konsep. In *Jurnal Elementaria Edukasia* (Vol. 3, Issue 1). Universitas Majalengka. <https://doi.org/10.31949/jee.v3i1.2103>
- Darwin, M., Mamondol, M. R., Sormin, S. A., Nurhayati, Y., Tambunan, H., Sylvia, D., Adnyana, I. M. D. M., Prasetyo, B., Vianitati, P., & Gebang, A. A. (2021). *Metode penelitian pendekatan kuantitatif*. Media Sains Indonesia.
- Dinata, H. A., Sulisty, A., & Windasari, W. (2024). Pemanfaatan Teknologi Informasi pada Manajemen GTK di SMPN 40 Surabaya. *Pubmedia Jurnal Penelitian ....*
- FIRDAUS, S. (2023). *Implementasi Sistem Aplikasi Pendataan Pegawai (A-Gtk) Di Smk Negeri 3 Probolinggo*. repository.upm.ac.id.
- Gumilar, G., Afriza, E. F., Srigustini, A., Suherti, H., & ... (2024). Edukasi Program Guru Penggerak dan Sekolah Penggerak untuk Mewujudkan Tenaga Pendidik dan Sekolah Berkualitas. *Jurnal Pengabdian ....*
- Kasman, R. (2019). Bimbingan Satuan Pendidikan Aman Bencana Bagi Guru Dan Tenaga Kependidikan Pasca Bencana Di Kota Palu, Sigi Dan Donggala. *Jurnal Obor Penmas: Pendidikan Luar ....*
- Lestari, R., Syefrinando, B., Efni, N., & Firman, F. (2021). Implementasi Media Pembelajaran Berbasis Entrepreneur di Sekolah. In *Edukatif: Jurnal Ilmu Pendidikan* (Vol. 4, Issue 1, pp. 154–161). Universitas Pahlawan Tuanku Tambusai. <https://doi.org/10.31004/edukatif.v4i1.1760>
- Marbun, S., Andayani, M., & Kurniawan, I. (2025). Analisis Kepuasan Pengguna Aplikasi Siansidi Pengadilan Agama Purwakarta Menggunakan Pendekatan Model Delone And Mclean. In *Jurnal Aplikasi dan Teori Ilmu Komputer* (Vol. 6, Issue 2, pp. 97–101). Universitas Pendidikan Indonesia (UPI). <https://doi.org/10.17509/jatikom.v6i2.49372>
- Mulyadi, M., & Anhar, A. (2022). Pengaruh Latihan Multiple Jump terhadap Kemampuan Menendang Bola dalam Permainan Sepak Bola Pada Siswa Putra Kelas VII. In *JURNAL PENDIDIKAN OLAHRAGA* (Vol. 12, Issue 2, pp. 7–11). STKIP Taman Siswa Bima. <https://doi.org/10.37630/jpo.v12i2.837>
- Nur'Aliimu, B., Sumardjoko, B., & ... (2025). Peran Kepala Sekolah dalam Peningkatan Kompetensi Pedagogik Guru di SMPN 1 Kedawung. ... : *Jurnal Pendidikan Dan ....*
- Purwadi. (2023). *Sistem Informasi Manajemen Berbasis Digital*. 2(2), 9–10.
- Puspita, T. Y. (2022). Analisis Kepuasan Kerja Staf Politeknik Amamapare Menurut Teori Dua Faktor Herzberg. In *Jurnal Sosial dan Teknologi Terapan AMATA* (Vol. 1, Issue 2, pp. 35–38). Politeknik Amamapare. <https://doi.org/10.55334/sostek.v1i2.73>
- Rafli, M. F., Sidiq, F., Aprilia, R., Juliati, J., & ... (2024). Pendampingan Optimalisasi Komunitas Belajar di SD Negeri Kabu di Platform Merdeka Mengajar (PMM). *Journal Of Human And ....*
- Saidah, J. N., & Mahmudah, F. N. (2023). Dampak Dari Penghapusan Mata Pelajaran TIK Pada K-13 Dalam Kegiatan ANBK (Asismen Nasional Berbasis Komputer). *Innovative: Journal Of Social Science ....*
- Saputera, S. A., Sunardi, D., & Zulkarnain, J. (2022). Implementasi Siklus Rapid Application Development Pada Pengembangan Sistem Informasi Inventaris. In *JUSIBI (Jurnal Sistem Informasi dan E-Bisnis)* (Vol. 4, Issue 1, pp. 20–30). Lembaga Penelitian, Pengabdian Masyarakat, Penerbitan dan Percetakan Yayasan Sejahtera Bersama Bengkulu. <https://doi.org/10.54650/jusibi.v4i1.423>

- Siregar, F. S., Siregar, A., & Tarigan, D. (2022). Pengembangan Model Teaching Personality And Sosial Responbility (Tpsr) Mata Kuliah Pendidikan Jasmani Sekolah Dasar. In *School Education Journal Pgsd Fip Unimed* (Vol. 12, Issue 3, Pp. 195–203). State University Of Medan. <https://doi.org/10.24114/sejpgsd.v12i3.40754>
- Sukmawati, R. T. (2024). Pengembangan Permainan Monopoli Yoga Poses Sebagai Upaya Stimulasi Fisik Motorik Anak Usia 5-6 Tahun. In *Edukids: Jurnal Pertumbuhan, Perkembangan, dan Pendidikan Anak Usia Dini* (Vol. 19, Issue 2). Universitas Pendidikan Indonesia (UPI). <https://doi.org/10.17509/edukids.v19i2.71649>
- Sunarya, F. R. (2022). Implementasi Teori Motivasi Frederick Herzberg Dalam Sebuah Organisasi. In *SALAM: Jurnal Sosial dan Budaya Syar-i* (Vol. 9, Issue 3, pp. 909–920). LP2M Universitas Islam Negeri (UIN) Syarif Hidayatullah Jakarta. <https://doi.org/10.15408/sjsbs.v9i3.25915>
- Supriati, A., & Astuti, Y. Y. (2025). The Implementation of Teacher Performance Assessment Using PMM/Ruang GTK at SMP Negeri 2 Pamotan. *Dinamika Jurnal Ilmiah Pendidikan ....*
- Yashak, A., Shak, M. S. Y., Tahir, M. H. M., Shah, D. S. M., & Mohamed, M. F. (2020). Faktor Motivasi Teori Dua Faktor Herzberg dan Tahap Motivasi Guru Pendidikan Islam. In *Sains Insani* (Vol. 5, Issue 2, pp. 65–74). Universiti Sains Islam Malaysia. <https://doi.org/10.33102/sainsinsani.vol5no2.192>
- Yasmansyah, Y., & Sesmiarni, Z. (2022). Konsep Merdeka Belajar Kurikulum Merdeka. In *Jurnal Penelitian Ilmu Pendidikan Indonesia* (Vol. 1, Issue 1, pp. 29–34). Universitas Pahlawan Tuanku Tambusai. <https://doi.org/10.31004/jpion.v1i1.12>