

Project-based learning and extracurricular activities: effects on students' soft skills

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Abstrak

Soft skill merupakan kompetensi penting bagi siswa SMK, namun berbagai permasalahan terkait penguasaannya masih kerap dijumpai. Penelitian ini bertujuan untuk mengetahui pengaruh secara parsial dan simultan pembelajaran project based learning dan kegiatan ekstrakurikuler terhadap soft skill siswa kelas X dan XI program keahlian MPLB SMK Negeri 1 Karanganyar. Pendekatan kuantitatif digunakan dengan sampel 106 responden yang dipilih melalui teknik stratified random sampling. Data dikumpulkan melalui kuesioner dan dianalisis menggunakan regresi linear berganda dengan IBM SPSS versi 27. Hasil penelitian menunjukkan bahwa: (1) pembelajaran project based learning berpengaruh positif dan signifikan terhadap soft skill siswa dengan nilai $t(103) = 4.518, p < 0.001$; (2) kegiatan ekstrakurikuler berpengaruh positif dan signifikan terhadap soft skill siswa dengan nilai $t(103) = 2.282, p = 0.025$; (3) kedua variabel secara simultan berpengaruh positif dan signifikan terhadap soft skill siswa dengan nilai $F = 51.102, p < 0.05$. Kontribusi kedua variabel sebesar 49.8%, sementara 50.2% dipengaruhi faktor lain. Hasil ini dapat digunakan sebagai dasar pengembangan program pembelajaran dan kegiatan yang berorientasi pada penguatan soft skill siswa.

Kata kunci: keterampilan nonteknis; kuantitatif; manajemen perkantoran; pembelajaran aktif; pengembangan karakter

Abstract

Soft skills constitute essential competencies for vocational secondary school students, yet deficiencies in their mastery remain prevalent. This study examined the partial and simultaneous effects of project-based learning and extracurricular activities on the soft skills of Grade X and XI students enrolled in the Office Management and Business Services program at SMK Negeri 1 Karanganyar. A quantitative approach was employed with 106 respondents selected through stratified random sampling. Data were collected via validated questionnaires and analysed using multiple linear regression with IBM SPSS version 27. The findings revealed that: (1) project-based learning exerted a positive and significant partial effect on students' soft skills, $t(103) = 4.518, p < .001$; (2) extracurricular activities exerted a positive and significant partial

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effect, $t(103) = 2.282$, $p = .025$; and (3) both variables simultaneously produced a positive and significant effect, $F(2, 103) = 51.102$, $p < .001$. The two predictors jointly explained 49.8% of the variance in soft skills, with the remaining 50.2% attributable to extraneous factors. These findings provide an empirical basis for designing instructional and co-curricular programs oriented toward strengthening vocational students' soft skills.

Keywords: active pedagogy; character development; nontechnical competence; office management; quantitative research

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Introduction

Soft skills are widely recognised as foundational competencies that underpin individual success in both professional and social domains. Encompassing abilities such as effective communication, adaptability, teamwork, and interpersonal relationship management, these non-technical skills enable individuals to navigate workplace challenges, manage stress, collaborate productively, and maintain constructive relationships with colleagues and stakeholders (Zammi & Khoiriyah, 2018). In vocational education, where the primary objective is to prepare work-ready graduates, the cultivation of soft skills is particularly critical. Students equipped with strong conceptual and practical interpersonal abilities are better positioned to lead teams, manage organisational dynamics, and advance their career prospects.

Despite this recognised importance, empirical evidence suggests that vocational students' soft skills remain inadequate. Julianto et al. (2025) identified a persistent gap in the balanced integration of technical and non-technical skills within vocational education settings. Corroborating this concern, Frahidayah et al. (2024) reported that vocational students' soft skill attainment stood at only 46%, underscoring the need for systematic improvement. These findings point to a structural challenge in vocational education that warrants targeted intervention.

A preliminary investigation conducted among Grade X and XI students on the Office Management and Business Services (MPLB) program at SMK Negeri 1 Karanganyar confirmed these concerns. A questionnaire administered to 20 respondents revealed that 55% of students lacked effective communication skills, as evidenced by their inability to articulate information clearly during presentations. Leadership skills were deficient among 65% of respondents, manifested through a lack of initiative and limited active involvement in guiding group activities. Problem-solving abilities were weak in 70% of respondents, apparent from their difficulty in identifying solutions and making decisions during group discussions. Collaborative skills remained low at 40%, with uneven participation and poor cooperative behaviour within groups. Additionally, 55% of students demonstrated inadequate time management, characterised by insufficient planning and persistent delays in task completion. These data collectively indicate that students' soft skills require substantive improvement.

The development of students' soft skills is influenced by both internal and external factors. Internal factors include intelligence, talent, interests, motivation, and attitude, while external factors encompass learning approaches, environmental conditions, social motivation, and available opportunities (Metan & Handayani, 2023). Within educational contexts, soft skill development extends beyond theoretical instruction to encompass practical activities such as group work, project assignments, training programmes, and extracurricular participation.

One significant external factor is the instructional model employed in classroom learning. Project-based learning has emerged as a particularly effective pedagogical approach for enhancing students' soft skills. A meta-analysis by Novrita et al. (2024) demonstrated the high effectiveness of

project-based learning in fostering critical thinking and creative skills. Furthermore, Habibah (2024) emphasised its substantial contribution to the development of 21st-century competencies, including problem-solving, collaboration, communication, and creativity. Through project-based learning, students engage in authentic tasks that require them to apply knowledge in real-world contexts, thereby cultivating essential interpersonal and intrapersonal skills.

Extracurricular activities constitute another important factor influencing students' soft skills. These activities provide structured opportunities for students to interact, collaborate, and develop their potential through practical experiences outside the formal curriculum. Arifudin (2022) characterised extracurricular activities as a systematic means of self-development designed to explore and shape students' potential and character through targeted engagement. Research by Oktaviani et al. (2025) indicated that extracurricular activities support soft skill development, particularly in communication, cooperation, and leadership. This finding is reinforced by Arminsyah and Kunaenih (2023), who reported that extracurricular activities exerted a positive influence on the improvement of students' soft skills.

Although previous studies have independently examined the effects of project-based learning and extracurricular activities on students' soft skills, variation persists in the magnitude of influence and the relative contribution of each factor. Moreover, few studies have simultaneously investigated both variables within a single analytical framework to determine their combined and comparative roles in soft skill development. This study addresses this gap by examining the simultaneous influence of project-based learning and extracurricular activities on the soft skills of MPLB students at SMK Negeri 1 Karanganyar.

Accordingly, this study seeks to answer the following research questions: (1) Does project-based learning affect students' soft skills in the MPLB program at SMK Negeri 1 Karanganyar? (2) Do extracurricular activities affect students' soft skills in the MPLB program? (3) Do project-based learning and extracurricular activities simultaneously affect students' soft skills in the MPLB program? The corresponding hypotheses are: H1: Project-based learning has a significant effect on students' soft skills; H2: Extracurricular activities have a significant effect on students' soft skills; and H3: Project-based learning and extracurricular activities simultaneously have a significant effect on students' soft skills. The findings are expected to contribute to the broader understanding of soft skill development in vocational education and to inform the design of effective instructional and co-curricular programmes.

Research Methods

This study employed a quantitative approach using a causal-associative design to analyse the relationships and directional influences between the independent variables project-based learning and extracurricular activities and the dependent variable, students' soft skills. The quantitative paradigm was adopted because it enables the systematic use of numerical data and statistical analysis to examine problems objectively (Creswell, 2019). The study was conducted at SMK Negeri 1 Karanganyar, located in Karanganyar Regency, Central Java Province, Indonesia, with Grade X and XI students enrolled in the MPLB vocational program as the research subjects.

The study population comprised all 144 Grade X and XI MPLB students. A sample of 106 students was determined using the Slovin formula with a 5% margin of error and selected through proportionate stratified random sampling to ensure adequate representation across parallel classes. The resulting distribution was as follows: 26 students in Grade X MPLB 1, 26 students in Grade X MPLB 2, 27 students in Grade XI MPLB 1, and 27 students in Grade XI MPLB 2. As noted by Khoiroh et al. (2026), stratified random sampling is appropriate when the population can be grouped into distinct strata, from which samples are then drawn randomly in proportion to the size of each stratum. Individual randomisation within each class was conducted using the Calculator Soup online randomisation tool.

Data were collected using a closed-ended questionnaire employing a four-point Likert scale (1-4) to measure respondents' perceptions in a structured manner (Sugiarto & Dewantara, 2021). The instrument comprised 16 items measuring project-based learning, 12 items measuring

extracurricular activities, and 13 items measuring soft skills. All items were developed by the researcher based on the indicators identified for each variable.

Instrument validation was conducted through validity and reliability testing. The Product Moment correlation formula was used to assess item validity, with valid items being those that accurately represent and measure the intended construct (Maulana, 2022). Reliability was assessed using Cronbach's alpha, which evaluates the internal consistency of the instrument (Anshari et al., 2024). The instrument was pilot tested with 30 students who were not included in the main study sample.

Data analysis was performed using IBM SPSS version 27. The analytical procedures included data tabulation, classical assumption tests (normality, linearity, multicollinearity, and heteroscedasticity), multiple linear regression analysis, partial significance tests (t-tests), simultaneous significance tests (F-tests), and coefficient of determination analysis. Effective and relative contribution analyses were also conducted to determine the proportional influence of each independent variable on the dependent variable.

Results and Discussion

Research Results

Prior to administering the questionnaire to the main sample, a pilot study was conducted with 30 Grade X and XI MPLB students to ensure instrument validity and reliability. The validity test confirmed that all items were suitable for use: 16 items for project-based learning, 12 items for extracurricular activities, and 13 items for soft skills. The reliability analysis yielded Cronbach's alpha coefficients of .942 for the project-based learning variable (X_1), .954 for the extracurricular activities variable (X_2), and .843 for the soft skills variable (Y). As all values exceeded the .60 threshold, the instruments were deemed reliable and suitable for data collection.

Descriptive analysis of the soft skills variable (13 items, four-point scale) revealed a mean score of 41.49 (SD = 5.33), with a median of 41, a mode of 39, and scores ranging from 30 to 52. The project-based learning variable (16 items) had a mean score of 54.31 (SD = 5.87), with a median of 54, a mode of 64, and scores ranging from 43 to 64. The extracurricular activities variable (12 items) had a mean score of 41.29 (SD = 5.13), with a median of 41, a mode of 48, and scores ranging from 31 to 48.

Classical assumption testing confirmed that the data met all prerequisites for multiple linear regression analysis. The Kolmogorov-Smirnov normality test produced an asymptotic significance value of .200 ($p > .05$), indicating normal distribution. Linearity tests revealed deviation from linearity significance values of .189 for the relationship between soft skills and project-based learning, and .129 for the relationship between soft skills and extracurricular activities, both exceeding the .05 threshold and confirming linear relationships. The multicollinearity test yielded a Tolerance value of .406 ($> .10$) and a Variance Inflation Factor of 2.462 (< 10) for both independent variables, indicating the absence of multicollinearity. The Glejser heteroscedasticity test produced significance values of .357 for project-based learning and .599 for extracurricular activities, both exceeding .05, thereby confirming homoscedasticity.

Table 1
t-Test Results

Model	T	Significance
(Constant)	1.816	0.072
Project-Based Learning	4.518	0.000
Extracurricular Activities	2.282	0.025

Source: Data processed by researchers (2026)

As presented in Table 1, the partial significance test for project-based learning yielded a t value of 4.518 with $p < .001$, and for extracurricular activities, a t value of 2.282 with $p = .025$. Both values exceeded the critical t-table value of 1.983 at the .05 significance level. These results indicate

that each independent variable exerts a statistically significant partial effect on students' soft skills, leading to the rejection of the null hypothesis for both H1 and H2.

Table 2

F Test Results

Model	Sum of Squares	df	Mean Squares	F	Significance
Regression	1487.459	2	743.729	51.102	0.000
Residual	1499.032	103	14.554		
Total	2986.491	105			

Source: Data processed by researchers (2026)

Table 2 presents the results of the simultaneous significance test. The F-test yielded an F value of 51.102 ($p < .001$), which exceeded the critical F-table value of 3.08 at the .05 significance level. This result indicates that project-based learning and extracurricular activities simultaneously exert a statistically significant effect on students' soft skills, thereby confirming H3.

Table 3

Multiple Linear Regression Analysis Results

Model	B	Std. Error	Beta	Significance
(Constant)	6.362	3.504		0.072
Project-Based Learning	0.449	0.099	0.495	0.000
Extracurricular Activities	0.260	0.114	0.250	0.025

Source: Data processed by researchers (2026)

As shown in Table 3, the multiple linear regression equation derived from this analysis is: $\hat{Y} = 6.362 + 0.449X_1 + 0.260X_2 + e$. The positive constant of 6.362 indicates the baseline value of soft skills when neither predictor exerts an influence. The regression coefficient of 0.449 for project-based learning indicates that a one-unit increase in this variable, holding extracurricular activities constant, corresponds to a 0.449-unit increase in students' soft skills. Similarly, the regression coefficient of 0.260 for extracurricular activities indicates that a one-unit increase, holding project-based learning constant, corresponds to a 0.260-unit increase in soft skills. The standardised coefficients ($\beta = .495$ for project-based learning; $\beta = .250$ for extracurricular activities) confirm that project-based learning exerts the stronger influence on students' soft skills.

Table 4

Coefficient of Determination Results

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.706	0.498	0.488	3.81493

Source: Data processed by researchers (2026)

Table 4 indicates that the coefficient of determination (R^2) is .498, signifying that project-based learning and extracurricular activities jointly account for 49.8% of the variance in students' soft skills. The remaining 50.2% of the variance is attributable to factors beyond the scope of this study.

Table 5

Effective Contributions of Project-Based Learning and Extracurricular Activities to Soft Skills

Variable	Calculation	EC(%)
Project-Based Learning	$0.495 \times 0.688 = 0.340$	34%
Extracurricular Activities	$0.250 \times 0.631 = 0.158$	15.8%
Total		49.8%

Source: Data processed by researchers (2026)

As presented in Table 5, the effective contribution analysis reveals that project-based learning accounts for 34.0% of the explained variance in students' soft skills, while extracurricular activities contribute 15.8%. These figures confirm that project-based learning makes a substantially greater contribution to the criterion variable.

Table 6

Relative Contributions of Project-Based Learning and Extracurricular Activities to Soft Skills

Variable	Calculation	RC (%)
Project-Based Learning	$34 : 49.8 = 0.68$	68%
Extracurricular Activities	$15.8 : 49.8 = 0.32$	32%
Total		100%

Source: Data processed by researchers (2026)

Table 6 demonstrates that the relative contribution of project-based learning to students' soft skills is 68%, compared with 32% for extracurricular activities, yielding a combined total of 100%. This distribution further underscores the dominant role of project-based learning in shaping students' soft skills within the current research context

Discussion

Project-Based Learning and Students' Soft Skills

The first hypothesis was confirmed: project-based learning exerts a positive and significant effect on the soft skills of MPLB students at SMK Negeri 1 Karanganyar. The regression coefficient of 0.449 indicates that higher quality implementation of project-based learning is associated with correspondingly greater improvements in students' soft skills. This finding aligns with the work of Nugraha et al. (2023), who demonstrated that project-based learning effectively enhances student motivation, problem-solving abilities, collaborative competence, and information management skills. Similarly, Novrita et al. (2024) confirmed the high effectiveness of this pedagogical model in improving students' soft skills through a meta-analytic approach.

The mechanism underlying this relationship can be understood through the nature of project-based learning itself. In this model, teachers function not merely as transmitters of information but as facilitators, feedback providers, and designers of collaborative learning environments focused on skill development (Guo et al., 2020). Through interactive activities such as discussions, group work, and presentations, students gain opportunities to apply subject matter knowledge in authentic, real-world contexts that necessitate the exercise of social and personal skills. This experiential engagement equips students to confront diverse challenges with greater confidence and enhances their capacity to articulate ideas effectively. The empirical evidence thus supports the conclusion that more effective implementation of project-based learning leads to higher levels of student soft skill attainment.

Extracurricular Activities and Students' Soft Skills

The second hypothesis was similarly confirmed: extracurricular activities have a positive and significant effect on students' soft skills. The regression coefficient of 0.260 indicates that improvements in the quality of extracurricular activities are associated with corresponding increases in students' soft skills. The t-test results ($t = 2.282$, $p = .025$) provide statistical support for this relationship. These findings are consistent with those of Arminsyah and Kunaenih (2023), who reported that extracurricular activities positively influence the development of students' soft skills, and Oktaviani et al. (2025), who highlighted the vital role of extracurricular activities in developing communication, cooperation, and leadership competencies.

This finding is further reinforced by Noviana et al. (2025), who demonstrated that extracurricular activities positively contribute to the formation of students' character and social skills. In practice, extracurricular activities serve as a complementary platform for soft skill development through social experiences beyond the academic setting. Activities such as group discussions, structured training, work programme implementation, participation in competitions,

and engagement in social service projects provide students with authentic opportunities to practise organisational management, decision-making, and problem-solving. Consequently, higher quality and more consistent extracurricular engagement corresponds with more pronounced improvements in students' soft skills.

Simultaneous Effects of Project-Based Learning and Extracurricular Activities on Students' Soft Skills

The third hypothesis was confirmed through the F-test, which demonstrated that project-based learning and extracurricular activities simultaneously exert a significant effect on students' soft skills ($F = 51.102$, $p < .001$). The coefficient of determination ($R^2 = .498$) indicates that these two predictors jointly account for 49.8% of the variance in students' soft skills, while the remaining 50.2% is explained by factors beyond the scope of this investigation. The effective contribution analysis revealed that project-based learning contributes 34.0%, while extracurricular activities contribute 15.8%. The relative contribution analysis further demonstrated that project-based learning accounts for 68% and extracurricular activities 32% of the explained variance.

The dominant influence of project-based learning can be attributed to its consistent intensity and direct integration within the formal learning process. Students engaged in project-based learning routinely experience collaboration, communication, problem-solving, and accountability through the completion of structured projects. In contrast, the comparatively lower impact of extracurricular activities may be explained by the variability in activity types, intensity of engagement, and the experiences gained by individual students. Additionally, differences in the patterns of influence between Grade X and Grade XI cohorts may reflect variations in students' accumulated experiences and levels of engagement in both curricular and co-curricular activities.

These findings collectively demonstrate that project-based learning and extracurricular activities function as complementary pathways for soft skill development. Project-based learning serves as the primary vehicle, offering structured academic experiences that systematically cultivate collaboration, communication, and problem-solving abilities. Extracurricular activities serve as a reinforcing mechanism, providing informal social interactions and experiential learning opportunities that strengthen self-confidence and adaptability. The optimal development of students' soft skills is therefore most effectively achieved through the synergistic implementation of both approaches.

Conclusion

This study demonstrates that project-based learning and extracurricular activities play complementary roles in the development of soft skills among MPLB vocational students. Project-based learning functions as the dominant factor, providing structured learning experiences that encourage the development of collaboration, communication, and problem-solving abilities through systematic project completion. Extracurricular activities serve as a reinforcing factor, strengthening soft skills through social experiences, interpersonal interaction, and engagement in diverse practical activities. Together, these two factors contribute to a more comprehensive development of students' soft skills. This study contributes theoretically to the vocational education literature by elucidating the role of experiential learning in supporting the holistic development of vocational students' competencies. The findings reinforce the perspective that soft skills can be effectively cultivated through student engagement in learning activities that provide authentic, real-world experiences. In practical terms, the findings offer guidance for teachers and school administrators in designing project-based learning experiences and managing extracurricular programmes that effectively enhance students' soft skills. Teachers are encouraged to create project-based learning environments that are meaningful, interactive, and participatory, while extracurricular activities should be optimised to foster active engagement, collaboration, responsibility, and communication. Several limitations should be acknowledged. This study did not include Grade XII students, who were undertaking work experience placements during the data collection period, thereby limiting the generalisability of the findings to Grade X and XI students. Additionally, only two predictor variables were examined, leaving other potentially influential factors unexplored. Future researchers

are advised to broaden the scope of investigation by including additional variables and participant groups to obtain a more comprehensive understanding of soft skill development in vocational education contexts. Furthermore, school leaders are recommended to provide sustained institutional support for the ongoing implementation of both project-based learning and extracurricular activities, while students are encouraged to engage actively and responsibly in both learning pathways in accordance with their interests and potential.

References

- Anshari, M. I., Nasution, R., Irsyad, M., Alifa, A. Z., & Zuhriyah, I. A. (2024). Analisis validitas dan reliabilitas butir soal sumatif akhir semester ganjil mata pelajaran PAI. *Edukatif: Jurnal Ilmu Pendidikan*, 6(1), 965–977. <https://doi.org/10.31004/edukatif.v6i1.5931>
- Arifudin, O. (2022). Peran kegiatan ekstrakurikuler dalam membina karakter peserta didik. *JIIP: Jurnal Ilmiah Ilmu Pendidikan*, 5(3), 829–837. <https://doi.org/10.54371/jiip.v5i3.492>
- Armingsyah, N. R., & Kunaenih. (2023). Pengaruh kegiatan ekstrakurikuler terhadap peningkatan kemampuan soft skill peserta didik (Studi survey di SMKN 34 Jakarta). *Jurnal Sains dan Teknologi*, 5(1), 247–251. <https://doi.org/10.55338/saintek.v5i1.1391>
- Creswell, J. W. (2019). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson Education.
- Frahidayah, A. E., Murtini, W., & Susantiningrum. (2024). Pengaruh pengalaman PKL, kepercayaan diri, dan penguasaan soft skill terhadap kesiapan kerja. *Efisiensi: Kajian Ilmu Administrasi*, 21(1), 63–78. <https://doi.org/10.21831/efisiensi.v21i1.64221>
- Guo, P., Saab, N., Post, L. S., & Admiraal, W. (2020). A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research*, 102, 1–13. <https://doi.org/10.1016/j.ijer.2020.101586>
- Habibah, U. (2024). Penerapan model pembelajaran project based learning untuk meningkatkan kemampuan siswa SMK Al Musyawirin. *Journal of Comprehensive Science*, 3(4), 770–782. <https://doi.org/10.59188/jcs.v3i4.661>
- Julianto, A. F., Nurjanah, N., Chisbiyah, L. A., & Hidayati, L. (2025). Pengaruh praktik kerja lapangan dan soft skill terhadap kesiapan kerja siswa konsentrasi keahlian kuliner di SMK Negeri Kota Malang. *Jurnal Studi Guru dan Pembelajaran*, 8(2), 862–876. <https://doi.org/10.30605/jsgp.8.2.2025.6210>
- Khoiroh, U., Nashrullah, & Anam, S. (2026). Analisis teknik sampling dalam penelitian kuantitatif dan pengaruhnya terhadap kualitas data. *Jurnal Pendidikan Sosial dan Humaniora*, 5(1), 1418–1424. <https://publisherqu.com/index.php/pediaqu/article/view/3914>
- Maulana, A. (2022). Analisis validitas, reliabilitas, dan kelayakan instrumen penilaian rasa percaya diri siswa. *Jurnal Kualitas Pendidikan*, 3(3), 133–139. <https://doi.org/10.51651/jkp.v3i3.331>
- Metan, D., & Handayani, W. I. (2023). Analisis faktor yang mempengaruhi soft skills mahasiswa dengan problem-based learning sebagai variabel intervening. *Jurnal Teologi dan Filsafat*, 14(2), 101–197. <https://doi.org/10.30822/lumenveritatis.v14i2>
- Noviana, H., Sumardi, L., Kurniawansyah, E., & Zubair, M. (2025). Pembinaan soft skill peserta didik melalui kegiatan ekstrakurikuler (Studi di MAN 1 Mataram). *SAKOLA: Journal of Sains Cooperative Learning and Law*, 2(1), 1–13. <https://doi.org/10.57235/sakola.v2i1.5838>
- Novrita, S. Z., Ambiyar, & Syah, N. (2024). Efektivitas model pembelajaran project based learning terhadap soft skill berfikir kritis dan kreatif peserta didik: Meta analisis. *Jurnal Pendidikan Tambusai*, 8(1), 6347–6359. <https://doi.org/10.31004/jptam.v8i1.13368>
- Nugraha, I. R. R., Supriadi, U., & Firmansyah, M. I. (2023). Efektivitas strategi pembelajaran project based learning dalam meningkatkan kreativitas siswa. *Jurnal Penelitian dan Pendidikan IPS (JPPI)*, 17(1), 39–47. <https://doi.org/10.21067/jppi.v17i1.8608>
- Oktaviani, V. D., Hotimah, & Hermutaqien, B. P. F. (2025). Peran ekstrakurikuler dalam mendukung soft skill siswa di Sekolah Dasar Hang Tuah Makassar. *JIPTEK: Jurnal Inovasi Pedagogi & Teknologi*, 3(1), 12–20.

- Sugiarto, A., & Dewantara, J. A. (2021). Persepsi guru IPS Kota Singkawang terhadap literasi digital dalam mendukung kegiatan pembelajaran di era revolusi industri 4.0. *Jurnal BASICEDU: Research & Learning in Elementary Education*, 5(3), 1639–1651. <https://doi.org/10.31004/basicedu.v5i3.982>
- Susanto, P. C., Arini, D. U., Yuntina, L., Soehaditama, J. P., & Nuraeni. (2024). Konsep penelitian kuantitatif: Populasi, sampel, dan analisis data (Sebuah tinjauan pustaka). *Jurnal Ilmu Multidisiplin*, 3(1), 1–12. <https://doi.org/10.38035/jim.v3i1>
- Zammi, M., & Khoiriyyah, K. (2018). Analisis kemampuan soft skills siswa kelas XI SMK Futuhiyyah Mranggen Demak. *Jurnal Phenomenon*, 8(2), 154–164. <https://doi.org/10.21580/phen.2018.8.2.2487>