

Effectiveness of the Student Management Skills Training in Developing Student Leadership and Organizational Management

Fransiskus Sawan¹, Benediktus Risaldo Baeng², Selfiana Maria Faimnasi³

Email: fsawan513@gmail.com; risalbaeng@gmail.com; selfianafaimnasi@gmail.com

Correspondence: Fransiskus Sawan- fsawan513@gmail.com

^{1,2,3} Universitas Katolik Indonesia Santu Paulus Ruteng, Indonesia

Abstract. Student organizations play a strategic role in developing leadership and organizational management competencies among university students. However, the disruption era requires student leaders to demonstrate adaptive, collaborative, and performance-oriented leadership skills. This study examines the effectiveness of Student Management Skills Training (SMST) in enhancing leadership and managerial competencies of student organization leaders at Universitas Katolik Indonesia Santu Paulus Ruteng. A descriptive quantitative approach with a one-group pre-test–post-test design was employed, involving 97 student leaders from intra-campus organizations. Data were collected using a validated Likert-scale questionnaire with high reliability (Cronbach's Alpha = 0.91). Data analysis included descriptive statistics, paired-sample t-tests, and Cohen's d effect size. The results indicate a significant improvement in leadership and managerial competencies, with mean scores increasing from 4.04 to 4.46 ($t(96) = 9.87, p < 0.001$) and a large effect size ($d = 0.97$). The findings confirm that SMST is an effective training model and should be institutionalized with mentoring and long-term evaluation.

Keywords: leadership competence, managerial competence, training effectiveness

1 Introduction

Student organizations at Universitas Katolik Indonesia Santu Paulus Ruteng function strategically as learning spaces for organizational management grounded in local values, culture, and spirituality, while simultaneously serving as platforms for developing student leadership. Student organization leaders face several practical challenges, including limited managerial experience, weak inter-organizational coordination, inconsistencies in program planning and reporting, and the need to align organizational operations with institutional policies and the achievement of higher education Key Performance Indicators. In the era of disruption, these challenges have become increasingly complex due to rapid technological advancement, highly dynamic student social environments, and growing demands for organizational performance and accountability. Effective leadership in educational contexts has been shown to enhance organizational performance, improve decision-making quality, and strengthen adaptive capacity in response to organizational change [1]. Therefore, student

leadership development should not only focus on the acquisition of technical skills but also incorporate local wisdom (e.g., deliberative culture , prayer and reflective sessions) as ethical and cultural foundation for organizational management [2]. Furthermore, student leadership development needs to be designed in a systematic, contextual, and needs-based manner values in order to effectively address institutional challenges and the dynamic nature of student organizations [1] .

Student Management Skills Training (SMST) is one of the most widely implemented capacity-building strategies for university students in Indonesia. SMST is designed to strengthen both conceptual and practical organizational management skills through structured learning, simulations, group work, and experiential activities. Such training has been proven to enhance leadership capacity, especially when theory and practice are integrated effectively [2]. Experience-based leadership training has also been shown to improve communication, coordination, and students' ability to respond to organizational dynamics [3].

Recent studies demonstrate that experiential learning–based leadership programs significantly improve students' collaboration, communication, and decision-making skills. For example, basic leadership training has been shown to increase students' managerial competencies within campus organizational settings [4]. Civic education leadership programs have likewise strengthened students' leadership value actualization in academic organizations [5]. Similar outcomes were found in interprofessional leadership training, where students demonstrated improved leadership and facilitation abilities after participating in collaborative intensive sessions [6]. These findings are further reinforced by broader empirical research showing that leadership training grounded in cognitive-process development enhances students' ability to analyze problems, manage teams, and enact leadership behaviors effectively [7]. In studies across secondary and higher education contexts, student leaders also reported better readiness, confidence, and competence after participating in structured leadership programs [8], [9]. Additionally, higher education leadership practice reports highlight that well-designed student governance training strengthens organizational engagement and leadership enactment on campus [10]. Collectively, this body of evidence indicates that structured programs such as SMST have substantial potential to holistically enhance students' leadership capacity across cognitive, interpersonal, and organizational domains.

Although experiential and collaborative leadership training programs have been empirically shown to generate positive outcomes for participants' personal and professional development, several studies caution that short-term interventions do not always contribute to sustained behavioral change, particularly in psychologically rooted competencies such as leadership self-efficacy and identity formation. Prior research on leadership development indicates that while procedural and managerial skills, such as program planning, proposal writing, and organizational coordination can be developed through structured practice and simulation, deeper leadership dispositions require sustained intervention, meaningful leadership experiences, and reflective reinforcement over time [7], [9], [11]. Other studies on student leadership training

similarly suggest that short-term programs tend to be more effective in improving observable managerial competencies than in transforming relatively stable psychological constructs closely associated with self-perception and leadership identity [8], [12]. This limitation underscores the importance of empirical evaluation of leadership training. Evaluation should not only assess whether leadership training produces immediate competency gains, but also identify which dimensions are most responsive to short-term interventions. Therefore, pre- and post-training assessments, as employed in this study, are essential to critically examine the practical scope and limitations of short-term student leadership training programs and to inform the design of complementary mentoring and long-term development strategies [1], [4], [10].

However, most previous studies primarily highlight descriptive aspects of leadership training or general improvements in soft skills, without rigorously evaluating program effectiveness using pre-test and post-test designs. Several studies also emphasize the necessity of measurable leadership programs but lack valid and reliable instruments or do not specifically focus on student organizational contexts [13]. Additionally, only a few studies assess SMST in small-to-medium universities, even though leadership development dynamics in these contexts often differ significantly in terms of resources, organizational culture, and coordination patterns. This gap indicates the need for empirical studies measuring changes in students' leadership competencies before and after training.

This study provides a new contribution by quantitatively measuring the effectiveness of SMST using a standardized instrument encompassing two major dimensions: leadership competence and managerial competence. The research involved 97 student organization leaders across program-level, faculty-level, and university-level bodies, offering a comprehensive empirical picture of student organizational capacity development. This data-driven approach has rarely been applied in SMST evaluations, particularly in universities with strong local and cultural characteristics, as highlighted in studies on leadership based on Manggarai and Flores local wisdom [14], [15].

The purpose of this study is to analyze the effectiveness of SMST in improving the leadership and managerial competencies of student organization leaders. Specifically, this research measures pre-test and post-test training score differences, identifies the aspects with the highest improvement, and formulates strategic recommendations for future student organization development programs. The findings are expected to guide higher education institutions in designing more measurable, relevant, and performance-oriented student leadership training models.

2. Research Method

This study employed a descriptive quantitative approach using a one-group pre-test and post-test design. This design was selected to measure changes in the leadership and managerial

competencies of student organization leaders before and after participating in the Student Management Skills Training (SMST). By comparing the pre-test and post-test scores, the study objectively evaluates the effectiveness of the training based on measurable competency changes. The research was conducted during the SMST program for student organizations at Universitas Katolik Indonesia Santu Paulus Ruteng, held on October 3–5, 2025. The pre-test questionnaire was administered on the first day before training sessions began, while the pretest and post-test was completed on the third day prior to the closing mass.

A total of 97 students participated in the study, consisting of executive members of Study Program Student Associations, Faculty Student Executive Boards, and the University Student Executive Board. A total sampling technique was used because all SMST participants represented the primary target group for leadership and managerial development within student organizations.

The research instrument was a Likert-scale questionnaire ranging from 1 (strongly disagree) to 5 (strongly agree), designed to measure two major dimensions: Leadership Competence and Managerial Competence. Leadership competence was assessed through indicators of communicating organizational vision and mission, motivating members, decision-making ability, leadership self-confidence, and cross-organization collaboration. Managerial competence was measured through indicators of program planning, proposal writing, financial management, reporting comprehension, and orientation toward national-level achievement.

Content validity of the instrument was assessed through expert judgment by lecturers specializing in educational management and leadership. Reliability testing using Cronbach's Alpha produced the following results: pre-test Alpha = 0.86, pre-test and post-test Alpha = 0.89, and Total Instrument Reliability = 0.91. These values indicate very high internal consistency, confirming that the instrument is reliable for evaluating the effectiveness of the SMST.

Data were collected through Google Forms in two stages: the pre-test to measure initial competency levels before the training, and the pre-test and post-test to measure competency levels after completion of all SMST sessions. Participants filled out the questionnaire independently to ensure reflective honesty and objective self-evaluation.

Data analysis was conducted through several steps. First, descriptive statistical analysis (mean, standard deviation, and percentage) was performed to describe the distribution and tendencies of pre-test and post-test scores across all competency indicators. Second, reliability testing (Cronbach's Alpha) was conducted to confirm internal consistency, with the instrument demonstrating very high reliability ($\alpha = 0.91$). Third, a paired-sample t-test was used to determine significant differences between pre-test and post-test scores; if normality assumptions were not met, the Wilcoxon signed-rank test served as an alternative. Fourth, effect size (Cohen's d) was calculated to assess the strength of the training's impact, with $d > 0.8$ categorized as a large effect. Fifth, visual analysis through bar charts was provided to clearly

illustrate changes in pre-test and post-test scores. These combined analyses were used to determine the empirical and measurable effectiveness of the SMST in enhancing leadership and managerial competencies among student organization leaders.

3. Research Findings

The results of this study present a comprehensive analysis consisting of four main components: (1) descriptive statistics of leadership and managerial competencies before and after the SMST training, (2) an effectiveness test using the paired-sample t-test to determine significant differences between pre-test and post-test training scores, (3) the calculation of effect size using Cohen's *d* to measure the magnitude of SMST's impact, and (4) visual representations illustrating changes in mean scores across all competency indicators. Together, these findings provide a robust empirical basis for assessing the effectiveness of SMST in enhancing student organizational leadership and management competencies.

The analysis of the research data shows an increase in scores across all indicators of leadership and managerial competencies. The average pre-test score was 4.04, while the pre-test and post-test score increased to 4.46, resulting in an overall improvement of 0.42 points. This indicates a positive change after participants completed the SMST, as presented in Table 1.

Table 1. Mean Pretest and Posttest Scores for Each Competency Indicator

No	Competency Indicators	Pre-test	Post-test	Improvement
1	Communication of vision and mission	4.05	4.49	+0.44
2	Motivating team members	3.89	4.46	+0.57
3	Decision-making ability	4.03	4.43	+0.40
4	Work program planning	3.99	4.46	+0.47
5	Proposal development	3.92	4.39	+0.47
6	Financial management	4.02	4.46	+0.44
7	Understanding of reporting procedures	4.01	4.45	+0.44
8	Leadership self-confidence	4.34	4.62	+0.28
9	Inter-organizational collaboration	4.33	4.81	+0.48
10	Motivation for national-level achievement	4.06	4.50	+0.44

The main findings demonstrate that all indicators improved. The highest increase occurred in the aspect of motivating members, with a gain of +0.57. Meanwhile, the smallest increase was found in leadership self-confidence, with a gain of +0.28, which is reasonable given that the initial score for this indicator was already high.

To determine whether there was a significant difference between the pre- and post-training scores, a paired-sample t-test was conducted. The results showed $t = 9.87$ with $df = 96$ and $p < 0.001$. This indicates a highly significant difference between the pre- and post-test scores. SMST was proven to be effective in improving participants' competencies. The magnitude of the

SMST impact was calculated using Cohen's d. The results showed that the mean difference = 0.42, the standard deviation difference \approx 0.43, and Cohen's d = 0.97. This finding indicates that the value of d is close to 1.0, which represents a large effect. This means that SMST is not only statistically significant but also very strong in practical terms for improving students' leadership and managerial competencies.

The comparison between the pre-test and post-test means shows an increase in participants' competency scores after completing SMST. Overall, the participants' initial competency level was already high, with a mean score of 4.04. After the training, the mean increased to 4.46, reflecting an improvement of 0.42 points. This increase is clearly visible in the graph, where the post-test bars are higher than the pre-test bars across all competency indicators. Visually, the comparison between pre-test and post-test scores, as well as the magnitude of improvement for each indicator, can be seen in **Figure 1**.

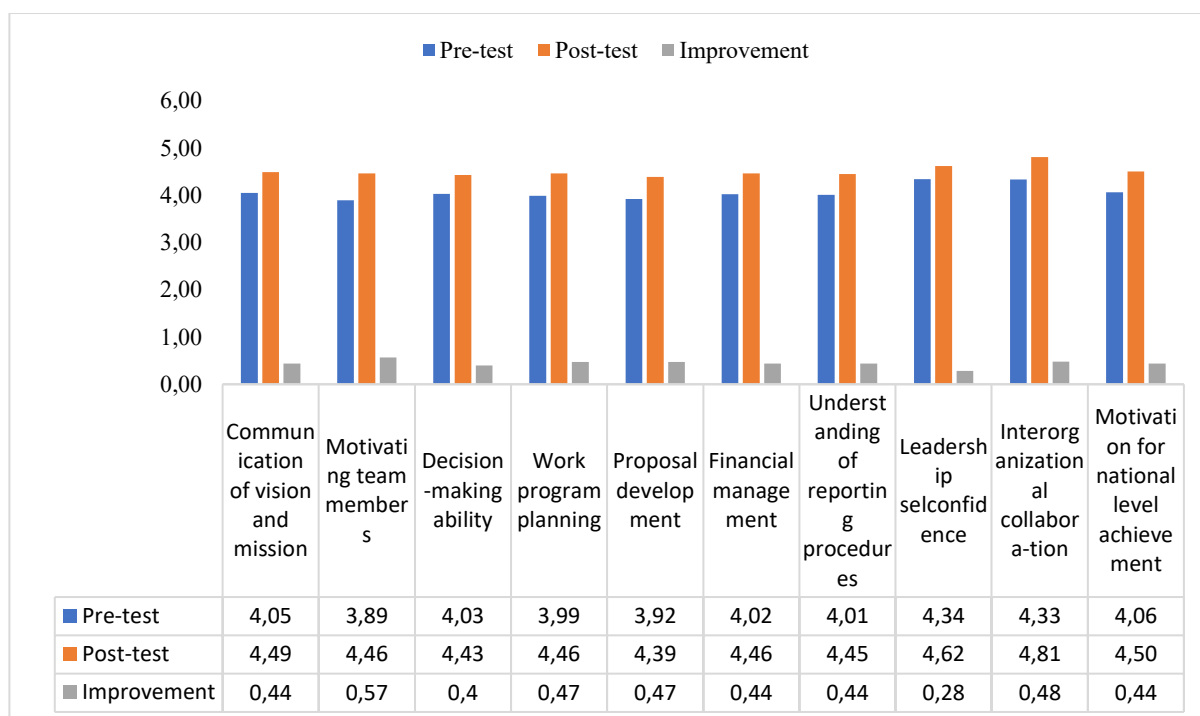


Fig. 1. Mean pre-test and post-test scores across competency indicators

4. Discussion

The increase in the total mean score from 4.04 to 4.46 ($\Delta = 0.42$) indicates that SMST produced a positive and measurable impact on strengthening leadership and managerial competencies among student organization leaders. This pattern of improvement is consistent with previous

studies on the effectiveness of leadership training that integrates conceptual instruction with practical application. Foundational leadership programs implemented in various universities have been shown to improve managerial skills, organizational discipline, and students' readiness to manage activities professionally [4], [13]. Moreover, practice-oriented training emphasizing interaction, simulation, and group dynamics has proven effective in enhancing communication skills, self-confidence, and collaborative leadership among students [3]. These findings affirm that the experiential learning approach embedded in SMST serves as a key mechanism enabling the competency gains observed in this study.

The effectiveness of SMST in improving competency scores is also aligned with research on interprofessional and collaborative training programs. Such studies reveal that practice-based, reflective training coupled with collaborative tasks significantly enhances participants' leadership capacity [6]. In the Indonesian educational context, leadership training that integrates direct practice and problem-solving has been shown to improve decision-making abilities and collaborative competence [5]. Accordingly, the consistent score improvements across all indicators, particularly in motivating members, planning organizational programs, and writing proposals, suggest that the blended methodology of theory, simulation, group discussion, and hands-on document preparation effectively accelerated the transfer of learning into real organizational skills. Thus, SMST represents a relevant and effective training model for strengthening student organizational capacity.

The most significant increases in the indicators of motivating members (+0.57), planning organizational programs (+0.47), and proposal writing (+0.47) demonstrate that SMST was most effective in enhancing procedural and practice-based competencies. This pattern is in line with empirical evidence showing that student leadership training integrating simulations, workshops, and hands-on document development produces higher gains than training focused on abstract conceptual content ([4], [3]). Training that requires participants to produce tangible outputs such as work programs, proposals, or budget plans while receiving structured feedback has been shown to strengthen self-efficacy, leadership confidence, and the ability to mobilize team members [13], [6]. Therefore, the improvements in these three indicators highlight the success of the experiential learning approach used in SMST in reinforcing core managerial skills essential for student organization governance.

The substantial increase in cross-organization collaboration (+0.48) reflects the effectiveness of program alignment sessions and non-formal activities such as ice breaking, shared prayer services, and social bonding events in building social connections and group cohesion. This finding aligns with literature indicating that training grounded in socio-emotional and interactive engagement strengthens networking, solidarity, and coordination among participants ([6], [3]). Reflective practices, such as shared prayer and contemplation sessions, also function as important spaces for value internalization, cultivating inclusive and collaborative leadership styles aligned with cultural and spiritual values of contemporary youth [16], [17]. Thus, the increase in this indicator underscores the significance of SMST's holistic approach combining

cognitive, social, and reflective components in enhancing collaborative leadership among student organization leaders.

The improvements in financial management (+0.44) and reporting skills (+0.44) indicate that technical sessions on budget planning and accountability reporting provided substantial practical benefits to participants. These findings align with studies confirming that technical, short-term training can improve procedural knowledge and administrative skills, especially when delivered through structured hands-on practice [4], [2]. However, research also highlights that managerial competencies such as financial management and reporting require repeated practice, supervision, and ongoing mentoring in real organizational settings to remain stable and impactful ([18], [1]). Therefore, while SMST proved effective as an initial driver of improvement, the sustainability of these competencies depends on consistent mentoring and follow-up training to ensure long-term organizational performance benefits.

The relatively modest increase in leadership self-confidence (+0.28) can be reasonably explained. Participants' baseline scores were already high, resulting in a ceiling effect. Beyond this factor, the finding also reflects the psychological characteristics of leadership self-efficacy, which tends to be more stable and resistant to change through short-term interventions. Leadership training literature indicates that psychological constructs such as leadership self-efficacy develop gradually, as they are closely linked to self-perception, leadership identity, and repeated mastery experiences. Consequently, these constructs do not change rapidly. Leadership confidence requires the internalization of leadership roles and self-verification through authentic leadership situations [6]; [19]. This contrasts with procedural skills such as proposal writing or program planning—which can be acquired more quickly through structured practice and simulation

Moreover, opportunities to practice leadership in real projects, confront authentic organizational challenges, receive continuous feedback, and engage in regular mentoring processes have been shown to produce more substantial improvements in participants' leadership confidence [5]; [1]. Therefore, the limited gain observed in this dimension does not indicate a weakness in the SMST design; rather, it reflects the inherent limitations of short-term training in transforming deeply rooted psychological structures. Accordingly, a key strategic implication is the importance of strengthening follow-up programs through sustained training, project-based leadership assignments, and structured reflection. Such approaches are more likely to support stable and meaningful growth in leadership self-confidence over the medium and long term.

The Cohen's *d* effect size of 0.97 shows that SMST produced a very large and meaningful impact on participants' leadership and managerial competencies. Statistically, values approaching or exceeding $d = 0.8$ are considered large, indicating that the observed changes are not only statistically significant but also strong in practical magnitude. This aligns with studies reporting that experiential, simulation-based, and practice-intensive leadership training produces substantial gains in leadership skills among students and educators [7]; [5]. Similar

conclusions were identified in research on student governance training, where structured leadership modules significantly improved students' ability to manage organizational tasks, solve problems, and coordinate team activities [10]. Likewise, mindfulness-based leadership interventions have demonstrated notable improvements in participants' behavioral effectiveness, suggesting that structured and reflective practice can yield high-impact developmental outcomes [11]. Supporting evidence is also found in student leadership assessments, which highlight that well-designed leadership programs substantially increase students' confidence, initiative, and capacity to perform leadership roles effectively [8]; [9]. Collectively, these findings confirm that training programs blending theory, hands-on practice, and reflective learning consistently yield higher competency gains than lecture-based approaches alone, reinforcing the interpretation that SMST is a high-impact intervention.

This strong effect size is further supported by SMST's instructional design, which integrates technical skill-building, collaborative engagement, and value formation. Such approaches have been shown to deepen learning experiences and improve the transfer of knowledge into organizational practice [1]; [18]. Evidence from leadership development research indicates that structured, cognitively oriented leadership models enhance sense-making, decision pathways, and adaptive leadership behaviors, thereby strengthening the effectiveness of training interventions [7]. Likewise, studies on student leadership programs in secondary and higher education contexts show that combining technical workshops, teamwork-driven activities, and reflective components significantly improves learners' leadership competence, initiative, and organizational readiness ([8]). Activities such as program development workshops, proposal simulations, event management practice, and reflective exercises (e.g., group prayer and community-building activities) contribute to a more holistic formation of competencies, thereby producing a strong intervention effect. Furthermore, practice-based student leadership programs have been shown to "ignite" engagement and foster deeper internalization of leadership values, reinforcing the long-term developmental trajectory initiated during training [12]. Thus, the high Cohen's *d* value reinforces not only the short-term effectiveness of SMST but also its potential long-term impact on the quality of student organization leadership.

5. Conclusion

The findings of this study demonstrate that SMST is effective in improving the leadership and managerial competencies of student organization leaders, as reflected in the increase in the total mean score from 4.04 to 4.46 and a Cohen's *d* effect size of 0.97, indicating a large impact. Significant gains were observed in practical competencies such as motivating members, planning work programs, and preparing proposals, while more conceptual competencies, such as leadership confidence, also improved although to a lesser extent due to high initial scores. Overall, these results confirm that SMST is a relevant and effective training intervention for strengthening student organizational capacity within the university context.

The study's findings imply that SMST should be institutionalized as a structured and routine development program, given its proven positive effects on the quality of student organization leadership. Strengthening experiential learning components—such as proposal simulation, event management practice, inter-organizational collaboration activities, and value-based reflection—should be maintained, as these elements significantly contribute to competency improvement. To ensure the sustainability of the training outcomes, the university is recommended to implement a structured mentoring scheme for at least one full leadership term (6–12 months) following the training, with mentoring sessions scheduled every two to three months. In addition, long-term evaluation should be conducted through repeated assessments of leadership and managerial competencies at the midpoint and at the end of the leadership term, allowing continuous monitoring of participants' developmental progress. Furthermore, the evaluation instrument used in this study can serve as a standardized monitoring tool to measure competency achievement over time and inform university policies related to student development and the attainment of key performance indicators.

This study has several limitations, particularly due to the one-group pretest and posttest design without a control group, which prevents full attribution of the observed improvements solely to SMST, as external factors may also contribute. The assessment was conducted over a short period, thus not capturing the sustainability of competency development in actual organizational practice. Therefore, future research is recommended to employ a quasi-experimental design with control groups, conduct longitudinal evaluations throughout the term of student leadership, and incorporate qualitative data through interviews or observations to deepen understanding of how leadership and managerial competencies develop within student organizations.

References

- [1] G. K. Hanum, "The Impact of Teacher Training , School Leadership , and Curriculum Innovation on Student Performance and Teacher Job Satisfaction in Secondary Schools," *Eastasouth J. Learn. Educ.*, vol. 2, no. 03, pp. 161–172, 2024, doi: 10.58812/esle.v2i03.
- [2] E. Suhendra, L. Rahmawati, B. C. Herawati, and G. Primajati, "Pelatihan Dasar Kepemimpinan : Peran dan Kewajiban Mahasiswa di Universitas Bumigora," *ADMA J. Pengabd. dan Pemberdaya. Masy.*, vol. 2, no. 2, pp. 221–226, 2022, doi: 10.30812/adma.v2i2.1627.
- [3] I. Santiko and A. T. Hapsari, "Program Pelatihan dan Workshop Tentang Kepemimpinan pada Organisasi Kesenian Mahasiswa Wilayah Banyumas Training Program and Workshop on Leadership in Student Arts Organizations in the," *J. Pengabd. dan Pemberdaya. Masy.*, vol. 8, no. 3, pp. 467–475, 2024, doi: 10.30595/jppm.v8i3.21663.
- [4] Z. Putra, F. Wajdi, R. Umpi, M. Novianti, and Ruhiba, "Pelatihan dasar kepemimpinan Himpunan Mahasiswa Program Studi Geografi dalam meningkatkan kemampuan manajerial," *J.A.I. J. Abdimas Indones.*, pp. 574–582, 2022.
- [5] F. B. Putra and I. Primahardani, "Pengaruh pelatihan program civic education leadership terhadap aktualisasi nilai-nilai kepemimpinan mahasiswa PPKn FKIP Universitas Riau," *J. Penelit. Bid. Pendidik.*, vol. 29, no. 2, pp. 92–109, 2023.
- [6] C. Van Diggele, S. Lane, and C. Roberts, "Student Interprofessional Facilitator Training (SIFT) program : building capacity in clinical education leadership," *BMC Med. Educ.*, pp. 1–11, 2022, doi: 10.1186/s12909-022-03725-9.
- [7] J. Mcclellan, "Addressing the problem of global leadership theory : proposing a cognitive process

- model for leadership training and development Available to Purchase,” *Eur. J. Train. Dev.*, vol. 46, pp. 607–626, 2022.
- [8] C. Chifamba, F. Zimunya, T. Nembaware, and N. Dimairo, “Assessment of Student leadership Training program based on Student Leaders Perceptions : Case of a Private Secondary School in,” *Int. J. Sci. Res. Manag.*, vol. 10, no. 12, pp. 2681–2690, 2022, doi: 10.18535/ijstrm/v10i12.el05.
- [9] A. Kuranchie, P. K. Affum, A. Kuranchie, and D. Ph, “The Pathways to Student Leadership and Effects of Training on Students ’ Leadership Competence The Pathways to Student Leadership and Effects of Training on Students ’ Leadership Competence,” vol. 1, no. 1, pp. 114–129, 2021, doi: 10.6007/IJARPED/v10-i1/8329.
- [10] M. Dollinger and J. Vanderlelie, “Developing and enacting student governance and leadership training in higher education . A Practice Report,” *Student Succes*, vol. 10, no. 2, pp. 59–64, 2019, doi: 10.5204/ssj.v10i2.1309.This.
- [11] N. Tan and E. K. Peters, “Institutional Knowledge at Singapore Management University Effects of a mindfulness-based leadership training on leadership behaviors and effectiveness Singapore Management University,” *Mindfulness (N. Y.)*, 2023.
- [12] M. Ajgaonkar, “Student leadership programme: igniting the young minds.,” *Emerg. Mark. Case Stud.*, vol. 12, no. 1, pp. 1–20, 2022, doi: <https://doi.org/10.1108/EEMCS-11-2020-0401>.
- [13] J. Almuharrik, M. Vriyatna, N. Hidayat, and B. Oetomo, “Pelatihan dasar kepemimpinan bagi mahasiswa stit muntaz karimun “,” *J. AlMuharrik*, vol. 2, no. 1, pp. 1–7, 2022.
- [14] * Yermia, D. Manafe, I. P. Hadi, and K. B. Jama, “Traditional Communication and Language Power In The Deliberative Culture Of ‘Lonto Leok,’” *Mimb. J. Sos. dan Pembang.*, vol. 39, no. 1, pp. 187–196, 2023, [Online]. Available: <https://doi.org/10.29313/mimbar.v39i1.2277>
- [15] P. Sahertian and Y. R. Effendi, “The role of principal transformational leadership based on Lonto Leok culture Manggarai community for strengthening student character,” *Masyarakat, Kebud. dan Polit.*, vol. 35, no. 3, pp. 321–338, 2022, doi: 10.20473/mkp.v35i32022.321-338.
- [16] S. Rahmi, F. Ismail, M. Umar, and N. S. Jannana, “Humanistic Leadership of School Principals in Promoting Effective Collaboration through Problem-Solving in Madrasah Aliyah,” *Nazhruna J. Pendidik. Islam*, vol. 8, no. 2, pp. 336–348, 2025, doi: 10.31538/nzh.v8i2.202.
- [17] N. Najiburrahman, A. H. Wahid, M. I. Khoir, H. Hefniy, and B. Mudarris, “Exploring Leadership Based on Local Wisdom: Leadership Learning in Pesantren,” *J. Islam Nusant.*, vol. 8, no. 1, p. 43, 2024, doi: 10.33852/jurnalnu.v8i1.510.
- [18] H. Herlina and A. Anwar, “Strategic Management of Education Based on Local Excellence in Indonesia,” *J. Econ.*, vol. 21, no. 2, pp. 286–303, 2024, [Online]. Available: <https://journal.uny.ac.id/index.php/economia/article/view/63796>
- [19] F. D. Jayanti and T. Wulandari, “Character Education Based on Local Wisdom Hasthalaku,” *J. Pendidik. dan Pengajaran*, vol. 57, no. 1, pp. 73–83, 2024, doi: 10.23887/jpp.v57i1.66260.