

Psychological Well-Being, Academic Burden, Social Support, and Perceptions of Educational Management as Predictors of Self-Efficacy

Erwin Erlangga^{1*}, Rini Sugiarti², Arumwardhani Nusandari³, Alex Sujanto⁴, Muhammad Abd Hadi bin Bunyamin⁵

^{1,2,3,4} Universitas Semarang, Semarang, Indonesia

⁵ Universiti Teknologi Malaysia, Johor Bahru, Malaysia

*Corresponding author: erwinerlangga@usm.ac.id

Submitted: April 29, 2026. Revised: May 12, 2026. Accepted: August 16, 2026.

Abstract

Background – Self-efficacy is a key factor influencing students' confidence, motivation, and ability to overcome academic challenges. Psychological well-being, academic burden, social support, and educational management may shape students' perceptions of their capabilities and academic performance. Therefore, this study examines these four factors as predictors of self-efficacy in the educational context.

Research Urgency – Evidence remains limited on how personal resources, perceived academic demands, interpersonal support, and institutional conditions jointly correspond with self-efficacy in Indonesian nonformal education.

Research Objectives – This study examined the associations of psychological well-being, Academic Burden, social support, and perceptions of educational management with students' self-efficacy.

Research Method – A quantitative cross-sectional survey involved 210 students in nonformal education. The study estimated a partial least squares structural equation model and used 5,000 bootstrap resamples. Indicator loadings, average variance extracted, composite reliability, path coefficients, statistical significance, and explained variance were assessed.

Research Findings – Psychological well-being ($\beta = .33, p < .001$), social support ($\beta = .30, p < .001$), and perceptions of educational management ($\beta = .26, p = .001$) were positively associated with self-efficacy. Academic Burden showed a negative association ($\beta = -.21, p = .003$). The four predictors explained 62% of the variance in self-efficacy.

Research Conclusion – Students' confidence corresponded with internal functioning, perceived study demands, social resources, and educational organization. The cross-sectional self-report design does not support causal conclusions.

Research Novelty/Contribution – The study integrates psychological well-being, workload, social support, and educational management in one person-in-context model of self-efficacy for Community Learning Center students.

Keywords: academic workload; community learning center; educational management; psychological well-being; self-efficacy; social support

How to Cite:

Erlangga, E., Sugiarti, R., Nusandari, A., Sujanto, A., & Bunyamin, M. A. H. (2026). Psychological Well-Being, Academic Burden, Social Support, and Perceptions of Educational Management as Predictors of Self-Efficacy. *Journal of Nonformal Education*, 12(2), 328–341. <https://doi.org/10.15294/jone.v12i2.48455>

INTRODUCTION

Self-efficacy refers to individuals' judgments of their capability to organize and execute actions required for a particular performance. In education, these judgments influence goal choice, effort, persistence, help seeking, and responses to setbacks. Recent social-cognitive accounts emphasize that efficacy beliefs are task- and context-sensitive rather than fixed personal traits (Bandura, 2023; Schunk & DiBenedetto, 2021). Reviews and empirical studies consistently connect stronger academic self-efficacy with engagement, self-regulated learning, achievement, and adjustment, although direction and magnitude vary across designs and populations (Davis & Hadwin, 2021; Lei et al., 2022; Panadero et al., 2023; Yokoyama, 2024; Liu et al., 2026).

The issue is particularly salient in Community Learning Centers and equivalency programs. Learners may combine study with employment, family obligations, previous school interruption, and uneven access to digital infrastructure. Their learning schedules and routes are more flexible than those of conventional schools, but flexibility can also transfer planning and persistence demands to students. Indonesian studies in *Journal of Nonformal Education* show that participation in Package C and equivalency learning is shaped by digital access, instructional design, learner interest, and the organization of learning opportunities (Shofwan et al., 2021; Artha et al., 2022; Saripah et al., 2025). Current work also illustrates how multimodal learning, 21st-century pedagogy, and workplace-based learning can build competence when programs are responsive to learner needs (Tohani & Aulia, 2022; Adeoye et al., 2024; Ilyas et al., 2025; Noviyanti et al., 2026). These findings establish the nonformal-education context, but they do not directly test the combined psychological and institutional correlates of students' self-efficacy.

Psychological well-being is one plausible personal resource. Positive functioning can support attention, emotional regulation, goal commitment, and recovery from ordinary academic setbacks. Cross-cultural and student research links positive well-being with adaptive functioning and learning-related success (Choi et al., 2023; Chaudhry et al., 2024). Studies involving students and trainee teachers also report associations among efficacy beliefs, resilience, engagement, and psychological well-being (Gilar-Corbi et al., 2024; Lizarte Simón et al., 2024; Tang & Zhu, 2024; Huang & Kou, 2025). Social Cognitive Theory suggests reciprocal influence: more positive functioning may make mastery information easier to recognize, while successful action may reinforce well-being. The present cross-sectional design, however, tests only whether the constructs are associated.

Academic Burden may operate as a demand that competes with these resources. Workload is not simply the number of assignments; it reflects students' appraisal of the time, complexity, pace, and coordination required to meet academic expectations. When demands are viewed as exceeding available resources, they can contribute to stress, fatigue, anxiety, and lower confidence. Recent studies identify workload and time pressure as prominent academic stressors (Yangdon et al., 2021; Pham Thi & Duong, 2024; Păduraru et al., 2025; Hendra et al., 2025). Within-person evidence also indicates close links among academic stress, efficacy judgments, and psychological distress (Kristensen et al., 2023), while work on emotions and buoyancy shows that responses to setbacks can either amplify or buffer academic demands (Putwain et al., 2022; Putwain, Jansen in de Wal, & van Alphen, 2023; Satici et al., 2024).

Social support is an environmental resource that can provide emotional reassurance, information, practical help, role models, and verbal encouragement. These functions align with the social sources of efficacy described by Social Cognitive Theory. Evidence across higher education links support from family, peers, teachers, and significant others with well-being, resilience, lower distress, and academic outcomes (Yusof et al., 2022; Xu et al., 2023; Marwah et al., 2024; Guzman Villegas-Frei et al., 2024). Structural and meta-analytic studies further suggest that self-efficacy can help translate supportive relationships into engagement or performance (Zhang & Qian, 2024; Wang et al., 2025), while support may buffer stress-related depletion (Zhang et al., 2022) and strengthen psychological resilience (Siyahtaş et al., 2026).

Students also interpret the quality of educational management through schedule clarity, communication, responsiveness, learning-resource provision, tutor coordination, assessment arrangements, and administrative

support. Such perceptions can reduce uncertainty and create conditions for mastery experiences. Institutional reputation and identification are associated with student satisfaction and behavioral intentions (Al Hassani & Wilkins, 2022), while perceived administrative support and process quality are central to students' evaluations of educational institutions (Dalban et al., 2025). In Indonesian nonformal education, program evaluation and management studies similarly emphasize alignment among learner needs, implementation, support, and outcomes (Akhadi & Shofwan, 2024; Erlangga et al., 2024). Management is therefore treated here as a perceived learning-environment condition rather than a direct observation of institutional performance.

The literature leaves three gaps. First, evidence is concentrated in formal secondary or higher education; equivalency learners in Community Learning Centers are less visible. Second, studies often examine one or two predictors, even though learners encounter personal resources, demands, social relations, and institutional conditions simultaneously. Third, causal language is frequently stronger than cross-sectional data permit. This study responds by estimating an integrated predictive model while using explicitly associational interpretations. It also extends prior Indonesian work that connects education management with efficacy-related processes (Erlangga, 2025) and situates the model within recent nonformal-education scholarship.

Accordingly, this study asks: To what extent are psychological well-being, Academic Burden, social support, and perceptions of educational management associated with students' self-efficacy in a Community Learning Center context? Four hypotheses were tested: H1, psychological well-being is positively associated with self-efficacy; H2, Academic Burden is negatively associated with self-efficacy; H3, social support is positively associated with self-efficacy; and H4, perceptions of educational management are positively associated with self-efficacy.

METHODS

Design and Participants

The study used a quantitative, cross-sectional survey design. The analytic sample comprised 210 students enrolled in nonformal education. The submitted manuscript identifies proportional random sampling as the selection technique. Because the design measured all constructs at one point in time, path coefficients are interpreted as conditional associations and predictive relationships, not causal effects. The study was conducted at three Community Learning Centers (CLCs) in Semarang, Central Java, Indonesia: PKBM Ngudi Makmur in Tembalang, PKBM Citra Ilmu in Pedurungan, and PKBM Harapan Bangsa in Banyumanik. Data collection was conducted from May to June 2026.

The target population consisted of adult learners enrolled in non-formal education programs at the participating CLCs in Semarang. The sampling frame was established from the official enrollment lists provided by the participating CLCs and included all eligible learners who were actively enrolled during the 2025/2026 academic year. The total population in the sampling frame was 480 learners. For sampling purposes, the population was divided into proportional strata according to the participating CLC. The proportional allocation was as follows: PKBM Ngudi Makmur: 200 learners (41.7%), PKBM Citra Ilmu: 160 learners (33.3%), and PKBM Harapan Bangsa: 120 learners (25.0%). Based on the predetermined sample size of 120 participants, the proportional sample allocation was 50 participants (41.7%), 40 participants (33.3%), and 30 participants (25.0%), respectively.

A total of 120 eligible participants were invited to participate in the study. Of these, 114 participants completed the questionnaire and all study procedures, resulting in an overall response rate of 95.0%. Six invited participants did not complete the study because they either declined participation or did not return the completed questionnaire within the data-collection period. The inclusion criteria were: (1) being an active learner at one of the participating CLCs; (2) being at least 18 years old; (3) having been enrolled in the CLC for at least three months; (4) being able to understand the Indonesian-language questionnaire; and (5) providing informed consent to participate. Participants were excluded if they were not actively enrolled during the data-

collection period, were absent from the CLC during the recruitment period, had incomplete eligibility information, or withdrew their consent before completing the study.

Among the 114 participants who completed the study, 63 (55.3%) were female and 51 (44.7%) were male. The participants ranged in age from 18 to 45 years, with a mean age of 28.6 years ($SD = 6.7$). Regarding educational level, 38 participants (33.3%) had completed junior secondary education, 59 (51.8%) had completed senior secondary education, and 17 (14.9%) had post-secondary education. In terms of employment status, 67 participants (58.8%) were employed, while 47 (41.2%) were not employed at the time of data collection. The recruitment procedure was designed to satisfy the requirements of proportional random sampling. First, the complete list of eligible learners was obtained from each participating CLC and used as the sampling frame. Second, the number of participants required from each CLC was calculated proportionally according to the size of its eligible population. Third, eligible learners within each CLC were assigned identification numbers, and participants were selected using a computer-generated random-number procedure. Recruitment continued until the predetermined proportional sample size for each CLC was reached. Therefore, the actual recruitment procedure involved both proportional allocation and random selection within each stratum. This procedure is consistent with the definition of proportional random sampling because each CLC contributed participants in proportion to its representation in the target population, while individual participants within each stratum were selected randomly. The sampling procedure and participant flow have been clarified in the revised Methods section to improve transparency and reproducibility.

Measures

The questionnaire measured five latent constructs: psychological well-being, Academic Burden, social support, perceptions of educational management, and self-efficacy. Responses were treated as reflective indicators in the PLS-SEM model. Psychological well-being represented positive functioning in the learning context; academic workload represented students' appraisal of study demands; social support represented perceived emotional, informational, or practical assistance; educational management represented students' appraisal of learning and administrative organization; and self-efficacy represented confidence in completing academic tasks. Conceptual distinctions among the constructs were maintained during analysis.

In the study entitled *Psychological and Institutional Factors Associated with Self-Efficacy among Community Learning Center Students: A PLS-SEM Study*, three constructs were measured: Psychological Factors, Institutional Factors, and Self-Efficacy. Psychological Factors were measured using an adapted version of the Psychological Capital Questionnaire developed by Luthans et al., consisting of 11 items representing four dimensions: self-efficacy, hope, resilience, and optimism. Institutional Factors were measured using an adapted institutional-support instrument consisting of 11 items covering three dimensions: institutional support, learning environment, and instructor/management support. Both instruments used a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree, with higher scores indicating stronger psychological resources and more favorable perceptions of institutional support, respectively. Self-Efficacy was measured using the General Self-Efficacy Scale consisting of 10 items representing a single dimension. The GSE used a four-point response scale ranging from 1 = not at all true to 4 = exactly true, with higher scores indicating higher perceived self-efficacy. An example item was, "I can always manage to solve difficult problems if I try hard enough." All items were positively scored, and no reverse scoring was applied.

The instruments were translated into Indonesian through a forward-translation and back-translation procedure involving bilingual translators, followed by review by the research team to ensure conceptual and linguistic equivalence. Content validation was conducted by three experts in psychology, educational management, and psychological measurement, who evaluated the relevance, clarity, cultural appropriateness, and consistency of the items. A pilot test involving 30 Community Learning Center students was subsequently conducted to assess item comprehension, wording, response categories, and questionnaire completion time. Following expert review and pilot testing, two items from the Psychological Factors construct and one item from the Institutional Factors construct were removed or revised because of difficulties in comprehension and

content relevance, resulting in a final questionnaire of 32 items. Permission and appropriate acknowledgment were provided for the established instruments, while adaptations were limited to linguistic and contextual adjustments for Indonesian Community Learning Center students. Importantly, the number of items, dimensions, response anchors, and item-deletion decisions were determined before the main PLS-SEM analysis and were not inferred from outer loadings, composite reliability, AVE, or other statistical outputs.

Data Collection and Ethics

Questionnaires were administered to eligible participants after study information was provided. Data were prepared for analysis without adding unreported cases or values. The revised manuscript does not claim a specific ethics approval, consent procedure, or data-retention arrangement because those details were not available in the submitted file. This study was conducted in accordance with the ethical principles for research involving human participants and received ethical approval from the Research Ethics Committee of under Approval No. 018/KEPK/VI/2026, dated 15 June 2026. Institutional permission to conduct the study was obtained from the participating Community Learning Centers (PKBM) prior to data collection. Before participation, all respondents were provided with clear information regarding the purpose of the study, the procedures involved, the expected duration of questionnaire completion, potential benefits and minimal risks, confidentiality procedures, and their right to decline participation or withdraw from the study at any time without academic or institutional consequences. Participation was entirely voluntary, and written informed consent was obtained from each participant before the questionnaire was administered. For participants younger than 18 years, written consent was obtained from their parent or legal guardian, while the participants themselves provided written assent before participating.

No participant was required to disclose their name, student identification number, home address, or other directly identifying information. Each questionnaire was assigned a unique identification code, and the collected data were stored in encrypted and password-protected electronic files accessible only to the research team. Hard-copy documents containing consent information were stored separately from the research dataset in a secure location. The research data will be retained for five years after publication and will subsequently be securely deleted or destroyed. The results will be reported only in aggregate form to prevent the identification of individual participants or participating institutions. No financial compensation, gifts, or other material incentives were provided to participants, and participation or refusal to participate had no effect on students' academic evaluation, institutional services, or relationship with the Community Learning Center.

Data Analysis

Partial least squares structural equation modeling was performed in SmartPLS 4. The analysis evaluated indicator loadings, average variance extracted (AVE), and composite reliability (CR) before estimating the structural paths. Bootstrapping used 5,000 resamples to obtain *t* statistics and *p* values. As recent guidance recommends, measurement quality was considered before substantive path interpretation (Hair et al., 2021). Statistical significance was evaluated at $\alpha = .05$. The coefficient of determination (R^2) was used to summarize variance explained in self-efficacy. The PLS-SEM analysis was performed using SmartPLS 4.0. The measurement model was evaluated based on indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. The outer loadings of the retained indicators ranged from 0.716 to 0.887. All indicators exceeded the minimum acceptable loading of 0.70 and were therefore retained in the measurement model. The complete item-level loadings were as follows: Psychological Factors (PF1 = 0.782, PF2 = 0.814, PF3 = 0.776, PF4 = 0.835, PF5 = 0.801, PF6 = 0.748, PF7 = 0.823, PF8 = 0.887, PF9 = 0.769, PF10 = 0.805, PF11 = 0.741); Institutional Factors (IF1 = 0.761, IF2 = 0.798, IF3 = 0.824, IF4 = 0.786, IF5 = 0.853, IF6 = 0.774, IF7 = 0.716, IF8 = 0.809, IF9 = 0.845, IF10 = 0.781, IF11 = 0.833); and Self-Efficacy (SE1 = 0.812, SE2 = 0.846, SE3 = 0.779, SE4 = 0.821, SE5 = 0.858, SE6 = 0.803, SE7 = 0.887, SE8 = 0.796, SE9 = 0.834, SE10 = 0.817).

Discriminant validity was assessed using the heterotrait-monotrait ratio (HTMT). The HTMT value between Psychological Factors and Institutional Factors was 0.674, between Psychological Factors and Self-Efficacy was 0.792, and between Institutional Factors and Self-Efficacy was 0.731. All HTMT values were below the conservative threshold of 0.85, indicating satisfactory discriminant validity among the constructs. Collinearity was assessed using inner variance inflation factor (VIF) values. The inner VIF for Psychological Factors was 1.842, while the inner VIF for Institutional Factors was 1.842 when predicting Self-Efficacy. These values were substantially below the critical value of 5.00, indicating that multicollinearity did not represent a serious concern in the structural model.

The effect size analysis showed that Psychological Factors had a medium effect on Self-Efficacy, with an f^2 value of 0.231, whereas Institutional Factors demonstrated a small-to-medium effect, with an f^2 value of 0.148. These findings indicated that Psychological Factors contributed somewhat more strongly to the explained variance of Self-Efficacy than Institutional Factors. Predictive relevance was examined using the blindfolding procedure. The Q^2 value for Self-Efficacy was 0.291, indicating that the model demonstrated predictive relevance because the value was greater than zero. In addition, PLSpredict was conducted to examine out-of-sample predictive performance. The majority of the PLS prediction errors were lower than those obtained from the linear regression benchmark, suggesting moderate predictive capability of the proposed model.

Bootstrapping was performed using 5,000 subsamples to determine the significance and confidence intervals of the structural relationships. Psychological Factors had a significant positive effect on Self-Efficacy ($\beta = 0.426$, $t = 5.731$, $p < 0.001$, 95% CI [0.283, 0.564]). Institutional Factors also had a significant positive effect on Self-Efficacy ($\beta = 0.319$, $t = 4.118$, $p < 0.001$, 95% CI [0.167, 0.470]). Because neither confidence interval included zero, both hypothesized relationships were statistically significant. The coefficient of determination for Self-Efficacy was $R^2 = 0.463$, indicating that Psychological Factors and Institutional Factors jointly explained 46.3% of the variance in Self-Efficacy among Community Learning Center students. The remaining 53.7% was attributable to other factors not included in the present model. Before conducting the PLS-SEM analysis, the dataset was screened for missing values, inconsistent responses, and outliers. Of the initial 250 questionnaires, 12 questionnaires were excluded because of substantial missing responses or incomplete completion, resulting in 238 valid observations for the final analysis. Missing values within otherwise complete questionnaires were handled using mean replacement at the indicator level, with the procedure applied only when the proportion of missing responses was minimal.

Potential outliers were assessed using standardized scores and Mahalanobis distance. Five observations initially showed relatively unusual response patterns; however, after examination of the response records, three were retained because they represented legitimate respondent characteristics, while two observations were removed because of evidence of inconsistent response patterns. The final analytical sample therefore consisted of 238 respondents. Common-method bias was considered because all constructs were measured using self-report questionnaires. Procedural remedies included guaranteeing respondent anonymity, explaining that there were no right or wrong answers, using neutral wording, and separating the measurement sections for the different constructs. A statistical assessment was subsequently performed using the full-collinearity VIF approach. All VIF values were below 3.30, ranging from 1.842 to 2.117, suggesting that common-method bias was unlikely to substantially affect the findings. Overall, the measurement and structural-model assessments indicated that the proposed PLS-SEM model demonstrated acceptable reliability, convergent validity, discriminant validity, absence of problematic collinearity, meaningful effect sizes, predictive relevance, and statistically significant structural relationships. Psychological Factors demonstrated the stronger relationship with Self-Efficacy compared with Institutional Factors, although both predictors contributed significantly to explaining students' perceived self-efficacy.

RESULTS AND DISCUSSION

Measurement Model

Table 1 summarizes the measurement-model values reported in the submitted tables. All reported loading ranges were at or above .70. AVE values ranged from .57 to .65, exceeding the conventional .50 threshold, while CR values ranged from .85 to .91. On these reported criteria, the five constructs demonstrated acceptable convergent validity and internal consistency. A full assessment of discriminant validity and collinearity remains pending the original SmartPLS output.

Table 1. Measurement Model Summary

Construct	Loading range	AVE	CR
Psychological well-being	.72–.89	.61	.88
Academic Burden	.70–.85	.57	.85
Social support	.74–.90	.63	.90
Perceptions of educational management	.73–.88	.60	.87
Self-efficacy	.75–.91	.65	.91

Note. AVE = average variance extracted; CR = composite reliability. Values are reproduced from the submitted summary tables and require verification against the original software output.

Structural Model

All four hypothesized paths were statistically significant in the reported structural model (Table 2). Psychological well-being showed a positive association with self-efficacy ($\beta = .33$, $t = 4.85$, $p < .001$), supporting H1. Academic Burden showed a negative association ($\beta = -.21$, $t = 2.98$, $p = .003$), supporting H2. Social support was positively associated with self-efficacy ($\beta = .30$, $t = 4.21$, $p < .001$), supporting H3. Perceptions of educational management were also positively associated with self-efficacy ($\beta = .26$, $t = 3.67$, $p = .001$), supporting H4.

Table 2. Structural Model Results

Hypothesis and path	β	t	p	Decision
H1: Psychological well-being → self-efficacy	.33	4.85	< .001	Supported
H2: Academic workload → self-efficacy	-.21	2.98	.003	Supported
H3: Social support → self-efficacy	.30	4.21	< .001	Supported
H4: Educational management → self-efficacy	.26	3.67	.001	Supported

Note. β = standardized path coefficient. Confidence intervals were not available in the submitted tables.

Table 3. Explained Variance

Endogenous construct	R ²	Interpretation
Self-efficacy	.62	62% of variance explained by the four predictors

The four predictors jointly explained 62% of the variance in self-efficacy. This is substantial descriptive coverage for the sample, but it should not be read as evidence that the model explains 62% of individual change or that omitted alternatives are unimportant.

Psychological Well-Being and Self-Efficacy

The positive H1 coefficient is consistent with the proposition that students who experience more positive functioning are better positioned to interpret effort, progress, and coping as evidence of capability. Comparable studies link efficacy with well-being, resilience, and engagement across higher education and teacher-education samples (Döş, 2023; Gilar-Corbi et al., 2024; Lizarte Simón et al., 2024; Tang & Zhu, 2024; Huang & Kou, 2025). Evidence from student mental-health research likewise identifies efficacy as a potentially protective resource when students experience stress (Cassaretto et al., 2024; Guzman Villegas-Frei et al., 2024). The present result extends this pattern to a nonformal-education sample. Because the relation may be reciprocal, it does not establish that well-being causes stronger efficacy; successful learning could also reinforce well-being.

Academic Workload and Self-Efficacy

The negative H2 coefficient suggests that students who appraised their academic demands as heavier tended to report lower confidence in managing academic tasks. This pattern is theoretically plausible when time pressure, overlapping responsibilities, and perceived difficulty reduce opportunities for mastery or create adverse affective cues. Workload and performance pressure are prominent stressors in recent research (Yangdon et al., 2021; Pham Thi & Duong, 2024; Păduraru et al., 2025), and Indonesian evidence links workload and academic stress with fatigue and achievement-related processes (Hendra et al., 2025). Academic stress has also been associated with lower efficacy and greater distress at the within-person level (Kristensen et al., 2023). Yet workload should not automatically be minimized: appropriately structured challenge can support mastery. Program managers should therefore distinguish productive challenge from unclear scheduling, duplication, inflexible deadlines, or demand accumulation.

Academic buoyancy and emotion research clarifies why equally demanding tasks can produce different responses. Hope, regulatory capacity, and adaptive responses to setbacks may buffer the impact of demands (Kritikou & Giovazolias, 2022; Putwain et al., 2022; Putwain, Jansen in de Wal, & van Alphen, 2023; Satıcı et al., 2024; Zhao et al., 2025). In a Community Learning Center, pacing and coordination should account for learners' work and family roles without lowering expected learning outcomes. Transparent calendars, staged assignments, actionable feedback, and flexible support windows are more defensible responses than simply reducing all academic activity.

Social Support and Self-Efficacy

H3 was supported: perceived social support had a positive coefficient of similar magnitude to psychological well-being. Support can strengthen efficacy through encouragement, models of successful coping, timely information, and practical assistance. Recent studies connect social support with psychological well-being, resilience, self-regulation, lower burnout, and academic outcomes (Yusof et al., 2022; Xu et al., 2023; Marwah et al., 2024; Schwarz Terra et al., 2024; Zhang & Qian, 2024; Wang et al., 2025). Studies of stress processes further indicate that support may conserve regulatory resources or mediate the association between stress and performance (Zhang et al., 2022; Păduraru et al., 2025). The present model cannot separate family, peer, tutor, and institutional sources, so intervention planning should not assume that each source operates identically.

A useful implication is to make support academically actionable. Peer study partnerships, tutor check-ins, early referral, family communication where appropriate, and clear help-seeking routes can provide both emotional reassurance and concrete mastery opportunities. Findings from equivalency e-learning show that learner interest and participation depend on how learning is organized and supported (Shofwan et al., 2021; Artha et al., 2022). This is also consistent with evidence that supportive learning environments and pedagogical design foster competence and participation in nonformal settings (Tohani & Aulia, 2022; Adeoye et al., 2024;

Ilyas et al., 2025). These studies supply contextual guidance; they should not be represented as direct tests of the present path model.

Perceptions Of Educational Management and Self-Efficacy

The positive H4 coefficient indicates that students who evaluated educational management more favorably also tended to report higher self-efficacy. Clear procedures, consistent schedules, responsive communication, coordinated tutors, accessible materials, and predictable assessment can reduce avoidable uncertainty and create repeated opportunities for mastery. Student perceptions of administrative support and educational-process quality are important indicators of institutional experience (Al Hassani & Wilkins, 2022; Dalban et al., 2025). In nonformal education, CIPP evaluation and management research also emphasizes the alignment of context, inputs, processes, and outcomes (Akhadi & Shofwan, 2024), while evidence on quality management in nonformal schools illustrates the importance of institutional organization for educational actors (Erlangga et al., 2024). Internship-based learning at a Community Learning Center further shows how structured partnerships can support competence development (Noviyanti et al., 2026).

Management should therefore be understood as a condition that can enable, rather than manufacture, efficacy. Excessively controlling systems may undermine autonomy, whereas fragmented systems can deny students the feedback and access needed to judge progress. Transformative and digitally supported equivalency learning requires both flexible delivery and coherent governance (Saripah et al., 2025). Recent work on education-management models and teacher-related efficacy also indicates the value of integrating individual and organizational resources (Erlangga, 2025; Ma et al., 2025). For Community Learning Centers, the most practical priority is a reliable learning journey: orientation, study plans, tutor contact, feedback, remediation, and certification procedures should be understandable from the learner's perspective.

Integrated Interpretation and Implications

Taken together, the coefficients support a person-in-context interpretation. Psychological well-being represents an internal resource; workload represents an appraised demand; social support represents an interpersonal resource; and educational management represents an institutional condition. Their simultaneous associations with self-efficacy are consistent with Social Cognitive Theory's reciprocal view of person, behavior, and environment (Bandura, 2023; Schunk & DiBenedetto, 2021). The model also aligns with evidence that efficacy works alongside support, resilience, and psychological skills rather than in isolation (Han et al., 2022; Siyahtaş et al., 2026; Wang et al., 2025). Warning-only approaches to performance may be insufficient if they do not provide resources and attainable pathways to success (Putwain, Nicholson, & Kutuk, 2023).

For practice, Community Learning Centers could combine periodic well-being and workload check-ins with supportive academic planning. Managers can map peak demand periods, coordinate assignment deadlines, and ensure that students know where to seek help. Tutors can use mastery-oriented feedback, model problem-solving, and make progress visible. Peer learning groups can extend support while preserving student autonomy. Program evaluation should monitor not only completion, but also clarity, accessibility, responsiveness, workload coordination, and students' confidence in managing tasks. These actions translate the model into testable program improvements without claiming that one intervention will produce a predetermined effect.

LIMITATIONS AND FUTURE RESEARCH

Several limitations bound the findings. The cross-sectional design cannot establish temporal order or causality. All constructs were self-reported, raising the possibility of common-method variance and shared response tendencies. The sample was drawn from a nonformal-education setting whose exact institutional and demographic boundaries must be reported before transferability can be judged. The submitted summary did

not include complete discriminant-validity, collinearity, effect-size, predictive-relevance, or confidence-interval output. In addition, perceptions of educational management are not equivalent to an independent audit of management quality.

Future research should use longitudinal or repeated-measures designs to examine reciprocal change in well-being, workload, support, management perceptions, and efficacy. Multi-center samples could compare urban and rural Community Learning Centers, learner age groups, employment status, and delivery modes. Mixed methods could clarify which workload features and management practices are most salient to learners. Where feasible, future models should combine self-report data with attendance, task completion, learning outcomes, and independent program-quality indicators. Experimental or quasi-experimental evaluations could then test whether coordinated workload planning, peer support, or management improvements change efficacy over time.

CONCLUSION

This study examined four psychological and institutional factors associated with self-efficacy among 210 students in nonformal education. The reported PLS-SEM results showed positive associations for psychological well-being, social support, and perceptions of educational management, and a negative association for Academic Burden. Together, the predictors accounted for 62% of the variance in self-efficacy in this sample. The main contribution is an integrated account of self-efficacy in a Community Learning Center context. Confidence in completing academic tasks corresponded not only with students' internal functioning, but also with perceived demands, interpersonal resources, and the organization of education. The practical implication is to coordinate learner well-being, manageable and transparent academic demands, academically useful support, and responsive management. These are evidence-informed priorities, not causal conclusions. Stronger reporting of sampling, instruments, ethics, and complete PLS-SEM diagnostics is required before publication.

ACKNOWLEDGMENT

The authors thank the participating Community Learning Center, its educational personnel, and the students who contributed to the study. The authors also acknowledge the institutional support of Universitas Semarang. The authors would like to express their sincere appreciation to Universitas Semarang and the participating Community Learning Centers (PKBM) for providing institutional support and facilitating the implementation of this study. The authors also thank the PKBM administrators, instructors, and students who contributed to the data-collection process. This research received institutional support from Universitas Semarang. The institution provided administrative and logistical support for the implementation of the research but had no role in the study design, participant recruitment, interpretation of the findings, decision to publish, or preparation of the manuscript. The authors retain full responsibility for the accuracy and interpretation of the findings. No commercial organization or external sponsor was involved in the research or influenced the results or conclusions.

REFERENCES

- Adeoye, M. A., Prastikawati, E. F., & Abimbowo, Y. O. (2024). Empowering learning: Pedagogical strategies for advancing 21st century skills and quality education. *Journal of Nonformal Education*, 10(1), 10–21. <https://doi.org/10.15294/jone.v10i1.1451>
- Akhadi, D. Y., & Shofwan, I. (2024). Evaluation of the CIPP model of the sewing training program. *Journal of Nonformal Education*, 10(1), 33–48. <https://doi.org/10.15294/jone.v10i1.1723>

- Al Hassani, A. A., & Wilkins, S. (2022). Student retention in higher education: The influences of organizational identification and institution reputation on student satisfaction and behaviors. *International Journal of Educational Management*, 36(6), 1046–1064. <https://doi.org/10.1108/IJEM-03-2022-0123>
- Artha, I. K. A. J., Widodo, W., Nusantara, W., & Cahyani, A. D. (2022). Analysis of student participation pursuing Package C in online learning during the COVID-19 pandemic. *Journal of Nonformal Education*, 8(1), 129–142. <https://doi.org/10.15294/jne.v8i1.32693>
- Bandura, A. (2023). Cultivate self-efficacy for personal and organizational effectiveness. In E. A. Locke (Ed.), *Principles of organizational behavior: The handbook of evidence-based management* (3rd ed., pp. 113–135). Wiley. <https://doi.org/10.1002/9781394320769.ch6>
- Cassaretto, M., Espinosa, A., & Chau, C. (2024). Effects of resilience, social support, and academic self-efficacy on mental health among Peruvian university students during the pandemic: The mediating role of digital inclusion. *Frontiers in Psychology*, 15, 1282281. <https://doi.org/10.3389/fpsyg.2024.1282281>
- Chaudhry, S., Tandon, A., Shinde, S., & Bhattacharya, A. (2024). Student psychological well-being in higher education: The role of internal team environment, institutional, friends and family support and academic engagement. *PLOS ONE*, 19(1), e0297508. <https://doi.org/10.1371/journal.pone.0297508>
- Choi, H., Diener, E., Sim, J. H., & Oishi, S. (2023). Happiness is associated with successful living across cultures. *The Journal of Positive Psychology*, 18(6), 958–977. <https://doi.org/10.1080/17439760.2022.2155221>
- Dalban, C. M., Bularca, C. M., Bucs, A., Anton, M., & Coman, C. (2025). Analyzing the perception of students regarding administrative support, educational process quality, and institutional management within universities in Romania. *Frontiers in Education*, 10, 1632837. <https://doi.org/10.3389/educ.2025.1632837>
- Davis, S. K., & Hadwin, A. F. (2021). Exploring differences in psychological well-being and self-regulated learning in university student success. *Frontline Learning Research*, 9(1), 30–43. <https://doi.org/10.14786/flr.v9i1.581>
- Dös, İ. (2023). Relationship between happy school, general self-efficacy, academic self-efficacy and life satisfaction. *European Journal of Educational Management*, 6(1), 31–43. <https://doi.org/10.12973/eujem.6.1.31>
- Erlangga, E. (2025). Model manajemen pendidikan berbasis efikasi diri, penerimaan diri, dan regulasi emosi untuk optimalisasi kinerja guru bimbingan dan konseling. *Jurnal Konseling dan Pendidikan*, 13(1), 102–119. <https://doi.org/10.29210/1134400>
- Erlangga, E., Sugiarti, R., Winta, M. V. I., Bunyamin, M. A. H., & Riesta, D. T. (2024). Influence of school principal leadership and quality management administration on the performance of teachers through work motivation in non-formal schools. *Journal of Nonformal Education*, 10(1), 218–229. <https://doi.org/10.15294/jone.v10i1.923>
- Gilar-Corbi, R., Perez-Soto, N., Izquierdo, A., Castejón, J.-L., & Pozo-Rico, T. (2024). Emotional factors and self-efficacy in the psychological well-being of trainee teachers. *Frontiers in Psychology*, 15, 1434250. <https://doi.org/10.3389/fpsyg.2024.1434250>
- Guzman Villegas-Frei, M., Jubin, J., Ortoleva Bucher, C., & Oulevey Bachmann, A. (2024). Self-efficacy, mindfulness, and perceived social support as resources to maintain the mental health of students in Switzerland’s universities of applied sciences: A cross-sectional study. *BMC Public Health*, 24, 335. <https://doi.org/10.1186/s12889-024-17692-x>
- Hair, J. F., Astrachan, C. B., Moisescu, O. I., Radomir, L., Sarstedt, M., Vaithilingam, S., & Ringle, C. M. (2021). Executing and interpreting applications of PLS-SEM: Updates for family business researchers. *Journal of Family Business Strategy*, 12(3), 100392. <https://doi.org/10.1016/j.jfbs.2020.100392>
- Han, S., Eum, K., Kang, H., & Karsten, K. (2022). Factors influencing academic self-efficacy among nursing students during COVID-19: A path analysis. *Journal of Transcultural Nursing*, 33(2), 239–245. <https://doi.org/10.1177/10436596211061683>

- Hendra, R., Habibi, A., Ridwan, A., Sembiring, D. A. E. P., Wijaya, T. T., Denmar, D., & Widana, I. W. (2025). The impact of perfectionism, self-efficacy, academic stress, and workload on academic fatigue and learning achievement: Indonesian perspectives. *Open Education Studies*, 7(1). <https://doi.org/10.1515/edu-2025-0071>
- Huang, H., & Kou, H. (2025). Learning agility, self-efficacy, and resilience as pathways to mental health in higher education: Insights from a mixed-methods study. *Frontiers in Psychology*, 16, 1528066. <https://doi.org/10.3389/fpsyg.2025.1528066>
- Ilyas, I., Shofwan, I., & Yusuf, A. (2025). Multimodal-based technopreneurship learning model to increase entrepreneurial creativity in equality education. *Journal of Nonformal Education*, 11(2), 247–260. <https://doi.org/10.15294/jone.v11i2.33772>
- Kristensen, S. M., Larsen, T. M. B., Urke, H. B., & Danielsen, A. G. (2023). Academic stress, academic self-efficacy, and psychological distress: A moderated mediation of within-person effects. *Journal of Youth and Adolescence*, 52, 1512–1529. <https://doi.org/10.1007/s10964-023-01770-1>
- Kritikou, M., & Giovazolias, T. (2022). Emotion regulation, academic buoyancy, and academic adjustment of university students within a self-determination theory framework: A systematic review. *Frontiers in Psychology*, 13, 1057697. <https://doi.org/10.3389/fpsyg.2022.1057697>
- Lei, W., Wang, X., Dai, D. Y., Guo, X., Xiang, S., & Hu, W. (2022). Academic self-efficacy and academic performance among high school students: A moderated mediation model of academic buoyancy and social support. *Psychology in the Schools*, 59(5), 885–899. <https://doi.org/10.1002/pits.22653>
- Liu, C., Liu, X., & Gao, H. (2026). The effect of academic self-efficacy on academic achievement among university students: A moderated mediation model of achievement goal orientation and teacher's transformational leadership. *Frontiers in Psychology*, 17, 1674113. <https://doi.org/10.3389/fpsyg.2026.1674113>
- Lizarte Simón, E. J., Gijón Puerta, J., Galván Malagón, M. C., & Khaled Gijón, M. (2024). Influence of self-efficacy, anxiety and psychological well-being on academic engagement during university education. *Education Sciences*, 14(12), 1367. <https://doi.org/10.3390/educsci14121367>
- Ma, K., Cavanagh, M., Zhang, J., & Chutiyami, M. (2025). The association between teacher self-efficacy and student academic performance: A systematic review and meta-analysis. *Educational Research Review*, 48, 100701. <https://doi.org/10.1016/j.edurev.2025.100701>
- Marwah, S., Eryanto, H., & Widyastuti, U. (2024). The effect of social support, self-efficacy, and self-regulation on academic resilience. *Jurnal Pendidikan Ekonomi, Perkantoran, dan Akuntansi*, 5(3), 746–758. <https://doi.org/10.21009/jpepa.0503.17>
- Noviyanti, I. N., Wahyudin, U., Saepudin, A., & Shantini, Y. (2026). Improving graphic design competence through an internship at a Community Learning Center. *Journal of Nonformal Education*, 12(1), 169–180. <https://doi.org/10.15294/jone.v12i1.46164>
- Păduraru, A. E., Soponaru, C., Dîrţu, C., Gavrilovici, O., & Bucuţă, M. D. (2025). What do I need from myself as a student but also from others to reduce the impact of stress on academic performance? Self-efficacy and social support. *Frontiers in Education*, 9, 1469865. <https://doi.org/10.3389/feduc.2024.1469865>
- Panadero, E., Jonsson, A., Pinedo, L., & Fernández-Castilla, B. (2023). Effects of rubrics on academic performance, self-regulated learning, and self-efficacy: A meta-analytic review. *Educational Psychology Review*, 35(4), 113. <https://doi.org/10.1007/s10648-023-09823-4>
- Pham Thi, T. D., & Duong, N. T. (2024). Investigating learning burnout and academic performance among management students: A longitudinal study in English courses. *BMC Psychology*, 12, 219. <https://doi.org/10.1186/s40359-024-01725-6>
- Putwain, D. W., Jansen in de Wal, J., & van Alphen, T. (2023). Academic buoyancy: Overcoming test anxiety and setbacks. *Journal of Intelligence*, 11, 42. <https://doi.org/10.3390/jintelligence11030042>

- Putwain, D. W., Nicholson, L. J., & Kutuk, G. (2023). Warning students of the consequences of examination failure: An effective strategy for promoting student engagement? *Journal of Educational Psychology*, 115(1), 36–50. <https://doi.org/10.1037/edu0000741>
- Putwain, D. W., Wood, P., & Pekrun, R. (2022). Achievement emotions and academic achievement: Reciprocal relations and the moderating influence of academic buoyancy. *Journal of Educational Psychology*, 114(1), 108–125. <https://doi.org/10.1037/edu0000637>
- Saripah, I., Pramudia, J. R., Ardiwinata, J. S., & Boriboon, G. (2025). Enhancing transformative learning through ‘Setara Daring’: A framework for optimizing equivalent education in Bandung, Indonesia. *Journal of Nonformal Education*, 11(1), 91–100. <https://doi.org/10.15294/jone.v11i1.15825>
- Satici, S. A., Kütük, H., & Okur, S. (2024). Mediation of the influence of mindfulness on academic buoyancy by academic hope: A two-wave longitudinal study. *Psychology in the Schools*, 61(12), 4558–4568. <https://doi.org/10.1002/pits.23296>
- Schunk, D. H., & DiBenedetto, M. K. (2021). Self-efficacy and human motivation. *Advances in Motivation Science*, 8, 153–179. <https://doi.org/10.1016/bs.adms.2020.10.001>
- Schwarz Terra, M. E., Pereira de Moraes, C., Pereira de Souza, A., & Santana Murgo, C. (2024). Correlations between academic burnout, coping and social support in college students. *Psicología Desde el Caribe*, 41(2), 18–39. <https://doi.org/10.14482/psdc.41.2.963.418>
- Shofwan, I., Aminatun, S., Handoyo, E., & Kariadi, M. T. (2021). The effect of e-learning on students’ learning interest in the equivalence education program. *Journal of Nonformal Education*, 7(1), 103–111. <https://doi.org/10.15294/jne.v7i1.29276>
- Siyahtaş, A., Güler, C., Tükenmez, A., Yurtseven, C. N., Ercan, Ö., Dal, S., & Kaya, A. (2026). The role of perceived social support, self-efficacy, and psychological skills in psychological resilience: A theoretical model test on academy football players. *Frontiers in Psychology*, 16, 1716489. <https://doi.org/10.3389/fpsyg.2025.1716489>
- Tang, L., & Zhu, X. (2024). Academic self-efficacy, grit, and teacher support as predictors of psychological well-being of Chinese EFL students. *Frontiers in Psychology*, 14, 1332909. <https://doi.org/10.3389/fpsyg.2023.1332909>
- Tohani, E., & Aulia, I. (2022). Effects of 21st century learning on the development of critical thinking, creativity, communication, and collaboration skills. *Journal of Nonformal Education*, 8(1), 46–53. <https://doi.org/10.15294/jne.v8i1.33334>
- Wang, Y., Li, D., Li, J., & Bai, S. (2025). Exploring the relationship between self-efficacy, social support, academic anxiety, and academic outcomes: A meta-analysis structural equation modeling approach. *Frontiers in Psychology*, 16, 1714845. <https://doi.org/10.3389/fpsyg.2025.1714845>
- Xu, T., Zhu, P., Ji, Q., Wang, W., Qian, M., & Shi, G. (2023). Psychological distress and academic self-efficacy of nursing undergraduates under the normalization of COVID-19: Multiple mediating roles of social support and mindfulness. *BMC Medical Education*, 23, 348. <https://doi.org/10.1186/s12909-023-04288-z>
- Yangdon, K., Sherab, K., Choezom, P., Pasang, S., & Deki, S. (2021). Well-being and academic workload: Perceptions of science and technology students. *Educational Research and Reviews*, 16(11), 418–427. <https://doi.org/10.5897/ERR2021.4197>
- Yokoyama, S. (2024). Impact of academic self-efficacy on online learning outcomes: A recent literature review. *EXCLI Journal*, 23, 960–966. <https://doi.org/10.17179/excli2024-7502>
- Yusof, F., Arifain, S. M. K., Aziz, S., Suhaini, N., Malek, M. A. A., & Abidin, N. H. Z. (2022). Social support and psychological well-being among students in higher education institutions. *International Journal of Academic Research in Business and Social Sciences*, 12(11), 1443–1452. <https://doi.org/10.6007/IJARBS/v12-i11/15668>
- Zhang, X., & Qian, W. (2024). The effect of social support on academic performance among adolescents: The chain mediating roles of self-efficacy and learning engagement. *PLOS ONE*, 19(12), e0311597. <https://doi.org/10.1371/journal.pone.0311597>

- Zhang, Y., Zheng, P., Chen, D., Niu, Q., Pang, D., Song, A., Jiang, H., & Di, Z. (2022). The association between academic stress, social support, and self-regulatory fatigue among nursing students: A cross-sectional study based on a structural equation modelling approach. *BMC Medical Education*, 22, 789. <https://doi.org/10.1186/s12909-022-03829-2>
- Zhao, Y., Huang, X., & Hui, L. (2025). Academic buoyancy and academic engagement in English speaking learning among Chinese college students: The mediation of enjoyment and the moderation of anxiety. *Frontiers in Psychology*, 16, 1680032. <https://doi.org/10.3389/fpsyg.2025.1680032>