



Emotional Intelligence and Interpersonal Communication Ethics of PGMI Students: Their Implications for Affective Learning Outcomes in Science Education

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Abstrak

Kecerdasan emosional dan etika komunikasi interpersonal berperan penting dalam membentuk sikap, tanggung jawab, empati, serta kemampuan bekerja sama bagi calon guru pada pembelajaran IPA. Penelitian ini bertujuan menguji hubungan kedua variabel tersebut, baik secara parsial maupun simultan, dengan hasil belajar afektif mahasiswa PGMI pada mata kuliah Pembelajaran IPA di UIN Sulthan Thaha Saifuddin Jambi. Penelitian menerapkan pendekatan kuantitatif dengan desain korelasional noneksperimental terhadap 90 mahasiswa dari tiga kelas yang dipilih melalui purposive sampling. Data diperoleh menggunakan kuesioner dan dianalisis melalui statistik deskriptif, korelasi Pearson, serta regresi linear berganda pada taraf signifikansi 0,05. Hasil penelitian menunjukkan bahwa kecerdasan emosional dan etika komunikasi interpersonal tidak memiliki hubungan signifikan dengan hasil belajar afektif, baik secara parsial maupun simultan. Nilai F sebesar 1,641 dan p sebesar 0,205 menunjukkan ketidaksignifikanan model, yang hanya menjelaskan 6,5% variasi hasil belajar afektif. Temuan ini memberikan bukti kontekstual mengenai keterbatasan hubungan teoretis kedua konstruk tersebut.

Kata-kata Kunci: Kecerdasan; Komunikasi; Afektif; PGMI.

Abstract

Emotional intelligence and interpersonal communication ethics play important roles in shaping the attitudes, responsibility, empathy, and collaborative abilities of prospective teachers in science education. This study aims to examine the relationships between these two variables, both partially and simultaneously, and the affective learning outcomes of PGMI students enrolled in the Science Education course at UIN Sulthan Thaha Saifuddin Jambi. The study employed a quantitative approach with a non-experimental correlational design involving 90 students from three classes selected through purposive sampling. Data were collected using questionnaires and analyzed through descriptive statistics, Pearson correlation, and multiple linear regression at a significance level of 0.05. The results indicate that emotional intelligence and interpersonal communication ethics have no significant relationships with affective learning outcomes, either partially or simultaneously. The F value of 1.641 and p value of 0.205 indicate that the model is not statistically significant and explains only 6.5% of the variation in affective learning outcomes. These findings provide contextual evidence regarding the limitations of the theoretical relationship between the two constructs.

Keywords: Intelligence; Communication; Affective; PGMI.

INTRODUCTION

Contemporary higher education must develop intellectual abilities alongside responsibility, empathy, cooperation, respectful communication, and positive attitudes among students. These affective competencies are essential for prospective teachers, whose professional responsibilities involve emotional management and constructive relationships with learners, colleagues, and communities. Kamaluddin et al. explain that recent science education research demonstrates how emotional intelligence supports student engagement and connects emotional processes with conceptual learning, based on empirical studies published between 2015 and 2024.¹ Emotional intelligence enables students to recognize and regulate emotions, whereas ethical interpersonal communication promotes respectful expression, attentive listening, empathy, and collaboration. Consequently, affective development should constitute an integral element of science education, rather than being regarded as an additional or secondary learning objective.

Science learning extends beyond conceptual mastery because meaningful education also develops attitudes toward knowledge, collaboration, participation, responsibility, and respect for diverse viewpoints. The affective domain influences how students respond to instructional activities, challenges, group work, and scientific issues encountered throughout learning. According to McConnell and Kraft, affective dimensions, including feelings, attitudes, emotions, and values, can promote or hinder effective learning behaviors and therefore require greater attention in science education.² For PGMI students, these dimensions matter because they are preparing to teach elementary science while modeling appropriate social and ethical conduct. Affective learning outcomes should therefore encompass observable dispositions that encourage disciplined participation, responsible task completion, cooperation, empathy, openness, and respectful communication during science instruction and strengthen students' readiness for inclusive and responsible future classroom practice.

Emotional intelligence forms a psychological basis for managing emotions, sustaining motivation, understanding others, and adapting to interpersonal circumstances. These abilities may shape learning behavior because students who regulate feelings effectively can address academic pressure, disagreements, and tasks constructively.

¹ Kamaluddin et al., "Emotional Intelligence and Its Impact on Students' Science Learning: A Systematic Literature Review," *Vidya Karya* 41, no. 1 (2026): 203–221, <https://ppjp.ulm.ac.id/journal/index.php/JVK/article/view/25549>.

² David A. McConnell and Katrien J. van Der Hoeven Kraft, "Affective Domain and Student Learning in the Geosciences," *Journal of Geoscience Education* 59, no. 3 (2011): 106–110, <https://www.tandfonline.com/doi/full/10.5408/1.3604828>.

Shengyao et al. and Riyal and Awwad report that university studies connect emotional intelligence with self-efficacy, motivation, resilience, psychological well-being, academic achievement, empathy, emotional regulation, and social communication.^{3,4} Such evidence suggests that emotional intelligence contributes to educational outcomes beyond cognitive performance alone. However, these relationships may vary across students, disciplines, learning environments, and assessment measures, making contextual investigation necessary. Accordingly, this study explores emotional intelligence within science learning among PGMI students at the university level, with attention to their affective learning experiences and interpersonal development during instruction.

Interpersonal communication ethics complements emotional intelligence by transforming emotional awareness into responsible social conduct during academic interactions. Ethical communication involves clarity, active listening, empathy, respect, openness, and consideration of others' perspectives when students discuss scientific ideas, address disagreements, or complete collaborative tasks. According to Ariyani and Hadiani, a study of 88 university students identified a significant relationship between interpersonal communication skills and academic achievement, with stronger communication skills associated with better academic performance.⁵ These findings indicate that communication functions not only as a means of exchanging information but also as a social process that influences participation, interaction, and relationships. Although interpersonal communication skills and communication ethics are conceptually connected, they remain distinct constructs, leading this study to examine ethical interpersonal communication as a separate educational variable within science learning.

Recent evidence suggests that emotional intelligence and interpersonal communication are related, although each construct represents distinct capacities. Emotional intelligence involves recognizing, regulating, and understanding emotions, whereas interpersonal communication concerns expressing these abilities through interaction, including listening, empathy, and appropriate responses. According to Ramli and Azali, a quantitative survey of 379 undergraduates found a significant relationship between

³ Ye Shengyao et al., "Emotional Intelligence Impact on Academic Achievement and Psychological Well-Being among University Students: The Mediating Role of Positive Psychological Characteristics," *BMC Psychology* 12, no. 389 (2024): 1–17, <https://pmc.ncbi.nlm.nih.gov/articles/PMC11245800>.

⁴ Lana Zuhair Riyal and Ferial Mohammad Abu Awwad, "Emotional Intelligence and Its Relation to Personality Traits and Academic Achievement among Jordan University Students," *Jordanian Educational Journal* 10, no. 3 (2025): 292–317, <https://jaesjo.com/index.php/jaes/article/view/1617>.

⁵ Emma Dwi Ariyani and Dini Hadiani, "Keterampilan Komunikasi Interpersonal Antar Mahasiswa Dan Hubungannya Dengan Capaian Prestasi Akademik," *JSHP: Jurnal Sosial Humaniora dan Pendidikan* 4, no. 2 (2020): 141–149, <https://jurnal.poltekba.ac.id/index.php/jsh/article/view/849>.

emotional intelligence and interpersonal communication skills, particularly empathy and social skills, although several emotional-intelligence dimensions showed no significant effects.⁶ This finding indicates that emotional intelligence does not automatically produce every aspect of effective communication behavior. Therefore, examining both variables together may offer a more precise understanding of affective learning outcomes in higher education than investigating either construct separately, especially when considering students' emotional regulation, social interaction, and learning experiences.

At the PGMI level, these variables are especially relevant because students are prepared as teachers who must integrate subject knowledge, character, communication, and social competence. Previous studies have explored emotional intelligence in relation to academic achievement, interpersonal communication, and science learning, yet they involve different populations, outcomes, contexts, or variable combinations. According to Suartini and Suarni, research among elementary students found a significant simultaneous relationship between learning discipline, emotional intelligence, and science learning outcomes, indicating that emotional and behavioral factors may accompany science achievement.⁷ Studies involving PGMI students have addressed affective achievement through science learning approaches, but have not jointly examined emotional intelligence and interpersonal communication ethics. This situation reveals a research gap concerning affective learning outcomes among prospective elementary school teachers at university level.

A preliminary survey of PGMI students at UIN Sulthan Thaha Saifuddin Jambi indicates that this issue warrants empirical investigation. The survey found that 38% of respondents demonstrated moderate emotional intelligence, 24% showed low emotional intelligence, 36% reported limited participation in science discussions, and 42% displayed suboptimal affective achievement. Prihatin explains that research involving PGMI students in science learning emphasizes affective aspects, including attitudes, motivation, responsibility, and collaboration, showing that science instruction can develop these dimensions alongside conceptual understanding.⁸ These percentages should be viewed as

⁶ Romlah Ramli and Nur Syahirah Azali, "Pengaruh Dimensi Kecerdasan Emosi Terhadap Kemahiran Komunikasi Interpersonal Dalam Kalangan Mahasiswa," *APJ: Asian People Journal* 8, no. 1 (2025): 53–76, <https://journal.unisza.edu.my/apj/index.php/apj/article/view/800>.

⁷ Luh Wayan Nopa Suartini and Ni Ketut Suarni, "Exploring the Relationship Between Learning Discipline and Emotional Intelligence with Science Learning Outcomes in Fifth-Grade Elementary School Students," *Jurnal Pedagogi dan Pembelajaran* 7, no. 3 (2024): 530–541, <https://ejournal.undiksha.ac.id/index.php/JP2/article/view/73886>.

⁸ Relly Prihatin, "Konsep Dasar IPA Berbasis STEM PJBK Pada Ketercapaian Domain Afektif Mahasiswa PGMI STIT Sunan Giri Bima," *Fashluna: Jurnal Pendidikan Dasar dan Keguruan* 1, no. 1 (2020): 1–8, <https://www.ejournal.stitbima.ac.id/index.php/fashluna/article/view/214>.

contextual indicators rather than causal evidence because respondent numbers, instruments, collection periods, scoring criteria, and statistical procedures require transparent documentation. Therefore, the present study examines the proposed relationships through systematic empirical analysis using clearly defined variables and appropriate statistical procedures systematically.

Evidence indicates a research gap regarding the combined contribution of emotional intelligence and interpersonal communication ethics to affective learning outcomes in science education among PGMI students. Earlier studies have explored emotional intelligence with academic outcomes, emotional intelligence with interpersonal communication, and interpersonal communication with academic achievement, whereas science education research has emphasized affective dimensions. This study fills that gap by examining PGMI students at UIN Sulthan Thaha Saifuddin Jambi and treating affective learning outcomes as the dependent variable in science learning. Accordingly, the study asks three questions: Does emotional intelligence significantly affect students' affective learning outcomes in science education? Does interpersonal communication ethics significantly affect these outcomes? Do emotional intelligence and interpersonal communication ethics simultaneously affect students' affective learning outcomes in science education empirically?

RESEARCH METHODOLOGY

This study used a quantitative approach with a nonexperimental correlational design to analyze relationships among emotional intelligence, interpersonal communication ethics, and affective learning outcomes in Science Learning. Sugiyono states that quantitative research relies on measurable data and statistical procedures to test predetermined hypotheses systematically.⁹ The research involved PGMI students at UIN Sulthan Thaha Saifuddin Jambi who were enrolled in the Science Learning course during the verified study period. A purposive sample of 90 students from three researcher-taught classes was selected according to course enrollment, semester, comparable learning materials, and accessibility. The researcher should report the population size, class composition, inclusion and exclusion criteria, and sample-size rationale, while the correlational design identifies statistical associations rather than independently establishing causal relationships.

⁹ Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif Dan R & D* (Bandung: Alfabeta, 2019).

The study investigated emotional intelligence (X_1), interpersonal communication ethics (X_2), and affective learning outcomes (Y). Arikunto stresses systematic definition of the population, sample, and research procedures to ensure methodological clarity.¹⁰ Data were gathered through closed-ended Likert-scale questionnaires based on the theoretical frameworks of Daniel Goleman, DeVito, and David Krathwohl, with operational indicators presented in Table 1. The manuscript should report item numbers, response options, scoring procedures, instrument development, expert review, item analysis, Pearson Product Moment item–total correlations, and separate Cronbach’s Alpha coefficients for each variable to strengthen evidence of validity and reliability for each measured construct. Data collection involved institutional permission, informed consent, voluntary participation, confidentiality, secure data management, and safeguards against lecturer–student bias by ensuring participation and responses did not influence students’ academic assessment.

Table 1. Research Variable

Variabel	Teori	Indikator
Emotional Intelligence (X_1)	Daniel Goleman	Self-awareness, self-regulation, self-motivation, empathy, social skills
Interpersonal Communication Ethics (X_2)	Devito	Openness, empathy, supportive attitude, positive attitude, equality
Affective Outcomes (Y)	David Krathwohl	Discipline, responsibility, cooperation, active participation, respect for others’ opinions

Collected data were summarized through descriptive statistics and subsequently examined using inferential procedures. Azwar emphasizes systematic item construction and evaluation to ensure sound psychological measurement scales.¹¹ Regression assumptions included normality, linearity, multicollinearity, heteroscedasticity, and residual independence, followed by multiple linear regression using $Y = a + b_1X_1 + b_2X_2 + e$. Ghazali provides methodological guidance for multivariate analysis and regression using statistical software, while partial, simultaneous, and explained relationships were assessed through t-tests, F-tests, R^2 , and adjusted R^2 at $\alpha = 0.05$.¹² The manuscript should report software and version, coefficients, standard errors, t-values, F-value, p-values, R^2 , adjusted R^2 , and assumption-test results, while interpreting findings as statistical associations consistent with the correlational research design; these procedures support objective interpretation of observed statistical relationships consistently.

¹⁰ Suharsimi Arikunto, *Metodologi Penelitian Suatu Pendekatan Proposal* (Jakarta: PT. Rineka Cipta, 2002).

¹¹ Saifuddin Azwar, *Penyusunan Skala Psikologi*, Edisi 2. (Yogyakarta: Pustaka Pelajar, 2013).

¹² Imam Ghazali, *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 26*, Cet. 10. (Semarang: Badan Penerbit Universitas Diponegoro, 2021).

RESULT AND DISCUSSION

Result

The study involved 90 PGMI students enrolled in Science Learning across three classes at UIN Sulthan Thaha Saifuddin Jambi overall. Descriptive analysis showed emotional intelligence scores of 60–83, with a mean of 71.06 and standard deviation of 6.37, while interpersonal communication ethics scores ranged from 60–85, with a mean of 70.96 and standard deviation of 6.46. Affective learning outcomes ranged from 60–80, with a mean of 70.30 and standard deviation of 6.18, consistent with the reported values in Table 2. These dispersion measures indicate variation around each mean, although standard deviations alone cannot establish statistical homogeneity or justify categories such as good without validated cutoffs and complete raw distributions. Therefore, the descriptive findings provide an empirical baseline for subsequent inferential analysis, while score interpretations remain descriptive in this study.

Table 2. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Emotional Intelligence (X_1)	90	60	83	71.06	6.37
Interpersonal Communication Ethics (X_2)	90	60	85	70.96	6.46
Affective Learning Outcomes (Y)	90	60	80	70.30	6.18

Pearson correlation analysis assessed pairwise associations among emotional intelligence, interpersonal communication ethics, and affective learning outcomes. Emotional intelligence and affective outcomes yielded $r = 0.116$ and $p = 0.442$, indicating a positive, very weak, and statistically nonsignificant association at the 0.05 significance level. Interpersonal communication ethics and affective outcomes yielded $r = 0.150$ and $p = 0.214$, likewise showing a positive, very weak, and statistically nonsignificant relationship within the examined sample. Emotional intelligence and interpersonal communication ethics yielded $r = 0.104$ and $p = 0.474$, demonstrating a similarly weak association between the predictors. Thus, the variables showed no statistically meaningful pairwise relationships, while correlation analysis alone cannot establish partial predictor contributions or causal effects within multiple regression models for affective learning outcomes in this study.

Table 3. Correlation Test Results

Variable Pair	r	Sig. (2-tailed)	Interpretation
X ₁ -Y: Emotional Intelligence–Affective Outcomes	0.116	0.442	Very weak positive; not significant
X ₂ -Y: Communication Ethics–Affective Outcomes	0.150	0.214	Very weak positive; not significant
X ₁ -X ₂ : Emotional Intelligence–Communication Ethics	0.104	0.474	Very weak positive; not significant

The partial regression analysis examined each predictor while controlling for the other variable in the model. Emotional intelligence yielded $t = 0.986$ and $p = 0.329$, whereas interpersonal communication ethics showed $t = -1.613$ and $p = 0.113$. Because both p -values exceeded 0.05, neither variable demonstrated a significant partial relationship with affective learning outcomes within the reported model. Although interpersonal communication ethics showed a negative direction, this finding should not be interpreted as evidence of a harmful effect because its p -value exceeded the significance threshold, while the coefficient, standard error, and confidence interval were not reported. Therefore, the findings address the first two research questions by indicating no significant partial effects, requiring associative rather than causal interpretation, and showing that neither hypothesis was supported at $\alpha = 0.05$.

The simultaneous regression analysis generated $F = 1.641$ and $p = 0.205$ for the model including emotional intelligence and interpersonal communication ethics. Because p exceeded 0.05, both predictors jointly failed to establish a statistically significant regression model for affective learning outcomes based on the reported findings. The R^2 value of 0.065 shows that the model accounted for 6.5% of the observed variance, while the remaining 93.5% was unexplained by these predictors. This unexplained variance cannot be assigned to particular unmeasured factors because those variables were neither examined nor statistically tested in the analysis. Therefore, the simultaneous test addresses the third research question, although adjusted R^2 , degrees of freedom, standard errors, and confidence intervals should be reported and all statistical values verified using the original software output before publication.

Overall, descriptive results indicate similar score ranges, while inferential analyses reveal weak pairwise relationships and nonsignificant partial and simultaneous regression results. Corrected Table 2 values show mean scores of 71.06 for emotional intelligence, 70.96 for interpersonal communication ethics, and 70.30 for affective learning outcomes. The strongest pairwise relationship was communication ethics with affective outcomes at $r = 0.150$, whereas emotional intelligence with affective outcomes yielded $r = 0.116$.

Meanwhile, emotional intelligence and communication ethics correlated weakly at $r = 0.104$, suggesting limited empirical overlap between the measured constructs. These findings provide a basis for examining construct alignment and contextual influences, while relatively stable questionnaire scores did not necessarily produce measurable differences in the selected affective indicator, requiring careful theoretical and methodological interpretation of these findings overall.

The findings indicate that these three variables should not be considered interchangeable measures of affective development. Emotional intelligence covered self-awareness, self-regulation, self-motivation, empathy, and social skills, while communication ethics focused on openness, empathy, support, positive attitudes, and equality. Affective outcomes involved discipline, responsibility, cooperation, active participation, and respect for others' opinions, showing conceptual connections alongside distinct measurement domains. Because item counts, scoring procedures, reliability coefficients, and complete distributions were not reported, the numerical results cannot determine whether measurement sensitivity contributed to the weak associations. Moreover, the three-class purposive sample may limit variation and generalizability, requiring interpretation as context-specific evidence from 90 students rather than a universal pattern, particularly when questionnaire responses are used to represent observable affective behavior during science instruction in the classroom setting.

Discussion

The nonsignificant relationship involving emotional intelligence does not conflict with research indicating that emotional capacities can support science learning. Emotional intelligence may encourage engagement and adaptive responses, yet these effects differ from the affective indicators examined here, including discipline, responsibility, cooperation, participation, and respect. Mulamah and Suprapmanto examined 69 fifth-grade students and found a significant relationship between emotional intelligence and science learning activity ($r = 0.766$), whereas the present study involved 90 university students and measured affective learning outcomes.¹³ This difference indicates that age, educational level, outcome definitions, and learning contexts may influence the relationships observed across studies. Therefore, the finding represents context-specific evidence rather than a rejection of

¹³ Siti Mulamah and Joko Suprapmanto, "Studi Korelasi Kecerdasan Emosional Dengan Keaktifan Belajar IPAS Siswa Kelas V Sekolah Dasar," *Paedagogie* 21, no. 3 (2026): 2066–2075, <https://journal.unimma.ac.id/Paedagogie/en/article/view/17129>.

emotional intelligence theory, especially because participants and measured outcomes differed from those examined in science education research.

The weak association between emotional intelligence and affective outcomes may reflect how emotional capacities operate through specific learning processes rather than directly affecting every educational outcome. An overall emotional-intelligence score may obscure distinct contributions from empathy, social skills, self-regulation, and motivation. Kusuma, Firmansyah, and Carsiwan reported a significant positive relationship between emotional intelligence and cognitive, psychomotor, and affective outcomes in physical education among high-school students, where learning activities involved emotional and social participation.¹⁴ Their population, outcome measures, and instructional context differed from this PGMI study, which focused on affective learning outcomes in science education. These contextual differences indicate that opportunities for emotional expression and social interaction may shape the visibility of emotional intelligence in assessed outcomes, although the study did not directly examine these mechanisms.

The nonsignificant relationship between interpersonal communication ethics and affective outcomes contrasts with studies identifying associations between interpersonal communication and learning achievement. Communication ethics emphasizes the quality, values, and moral direction of interaction, while affective outcomes reflect attitudes and dispositions developed through ongoing educational experiences. Lumbantobing found that stronger interpersonal communication was associated with better sociology learning outcomes and interacted with instructional strategy, suggesting that communication may function alongside teaching conditions rather than independently.¹⁵ Because this study did not examine instructional strategy as a moderator or interaction variable, direct comparison remains limited, especially given differences in outcomes and populations. Nevertheless, the finding shows that questionnaire-based communication ethics should not automatically represent affective achievement when learning processes and assessment procedures use different approaches across varied educational contexts.

The simultaneous regression analysis shows that emotional intelligence and communication ethics did not significantly explain affective outcomes when entered

¹⁴ Bara Akmal Kusuma, Helmy Firmansyah, and Carsiwan, "The Relationship Between the Level of Emotional Intelligence and the Learning Outcomes of Physical Education Sports and Health in Public Senior High School 4 Bandung City," *ACTIVE: Journal of Physical Education, Sport, Health and Recreation* 14, no. 2 (2025): 729–734, <https://journal.unnes.ac.id/journals/peshr/article/view/28719>.

¹⁵ Roida Lumbantobing, "Pengaruh Strategi Pembelajaran Dan Komunikasi Interpersonal Terhadap Hasil Belajar Sosiologi," *Jurnal Teknologi Pendidikan* 10, no. 1 (2017): 55–64, <https://jurnal.unimed.ac.id/2012/index.php/jtp/article/view/8720>.

together. An R^2 value of 0.065 indicates that the model explained a small proportion of outcome variance, without showing which unmeasured factors were more important. Saputra, Hermawan, and Ahmadiansah examined emotional intelligence, interpersonal communication, and learning behavior among 76 secondary students, reporting moderate patterns across the measured constructs, although their population and outcome differed from this PGMI study.¹⁶ The present research involved 90 university students, purposive sampling, questionnaire instruments, and correlational regression, making numerical comparisons unsuitable. Lecturers can therefore consider emotional and communication development as relevant educational dimensions while avoiding assumptions that either construct independently ensures affective attainment without evidence concerning tested mediators or moderators.

Differences from earlier research may reflect the level and characteristics of the learning environment represented by the sample. PGMI students prepare for madrasah teaching while developing subject knowledge, professional expectations, peer relationships, and classroom participation, which can influence how emotional and ethical capacities appear. Ningsih and Ismaniar investigated interpersonal communication and learning outcomes among 32 Paket B learners using a quantitative correlational design, demonstrating that interactional variables can be related to achievement within another educational context.¹⁷ Differences in population, outcomes, and educational level mean their findings cannot be directly generalized to PGMI students. These explanations remain tentative because this study did not directly assess instructional climate, motivation, prior experience, professional identity, classroom participation patterns, or assessment practices, or other contextual factors affecting affective learning outcomes.

Methodological limitations should guide interpretation of the study's nonsignificant findings. Purposive sampling across three classes limits population coverage, while questionnaire measures may introduce self-report bias, social desirability, and common-method effects that reported statistics cannot fully address. Ariria, Anwar, and Albeta identified significant effects of interpersonal communication skills on chemistry learning outcomes among 200 students using validated questionnaires and regression analysis, showing that construct selection, sample size, and outcome measurement may yield different

¹⁶ Sigit Saputra, Agus Hermawan, and Reza Ahmadiansah, "How Do Communication Skills and Emotional Intelligence Influence Students' Learning?," *Anfusina: Journal of Psychology* 6, no. 2 (2023): 65–76, <https://ejournal.radenintan.ac.id/index.php/anfusina/article/view/18366>.

¹⁷ Yulia Widiya Ningsih and Ismaniar, "Hubungan Komunikasi Interpersonal Tutor Dengan Hasil Belajar Paket B Kelas IX Pada Matapelajaran IPS PKBM Farilla Ilmi Kota Padang," *Jurnal Family Education* 4, no. 4 (2024): 645–655, <https://jfe.ppj.unp.ac.id/index.php/jfe/article/view/240>.

empirical patterns.¹⁸ Because this study assessed communication ethics rather than general communication skills, comparisons with their findings remain limited but useful for recognizing measurement distinctions. Furthermore, the correlational design cannot establish causality, and absent reliability coefficients, item information, standard errors, confidence intervals, degrees of freedom, and adjusted R^2 constrain reproducibility and weaken interpretation.

This study contributes by examining emotional intelligence and interpersonal communication ethics jointly in relation to affective learning outcomes among PGMI students studying science. Previous research often associates emotional intelligence with communication, engagement, learning behavior, or academic achievement, while fewer studies investigate both affective-social constructs as predictors of clearly defined affective outcomes among prospective madrasah elementary teachers. Garcia, Meurer, and Musial examined emotional intelligence and interpersonal communication among 202 accounting students through structural equation modeling, demonstrating that these constructs can be investigated across higher-education contexts.¹⁹ The present findings provide a context-specific counterpoint because neither predictor showed a significant relationship with affective outcomes among the sampled PGMI students. Accordingly, the novelty concerns the combined variables, specific population, science-learning setting, and empirically bounded interpretation offered by this study.

CONCLUSION

This study investigated the relationships among emotional intelligence, interpersonal communication ethics, and affective learning outcomes in science education involving 90 PGMI students at UIN Sulthan Thaha Saifuddin Jambi. Descriptive findings indicated mean scores of 71.06 for emotional intelligence, 70.96 for interpersonal communication ethics, and 70.30 for affective learning outcomes. Pearson analysis identified very weak positive relationships between emotional intelligence and affective outcomes ($r = 0.116$; $p = 0.442$) and between communication ethics and affective outcomes ($r = 0.150$; $p = 0.214$), with neither relationship reaching significance at 0.05. Multiple regression similarly found no significant partial effect for emotional intelligence ($t = 0.986$; $p = 0.329$) or communication

¹⁸ Amna Arria, Lenny S. Anwar, and Sri Wilda Albeta, "Pengaruh Keterampilan Komunikasi Interpersonal Dan Kepercayaan Diri Terhadap Hasil Belajar Peserta Didik Pada Mata Pelajaran Kimia," *Jurnal Pendidikan Kimia Universitas Riau* 10, no. 2 (2025): 1–10, <https://garuda.kemdiktisaintek.go.id/documents/detail/5290122>.

¹⁹ Isabel Cristina Martin Garcia, Alison Martins Meurer, and Nayane Thais Krespi Musial, "Emotional Intelligence and Interpersonal Communication Skills Accounting Students," *Revista Ambiente Contabil* 17, no. 1 (2025): 404–423, <https://periodicos.ufrn.br/ambiente/article/view/38727>.

ethics ($t = -1.613$; $p = 0.113$), while the simultaneous model was nonsignificant ($F = 1.641$; $p = 0.205$). The model explained 6.5% of outcome variation ($R^2 = 0.065$), indicating that 93.5% remained unexplained by these predictors. Thus, neither predictor individually nor jointly showed a statistically significant relationship with the selected affective learning outcomes.

The findings indicate that emotional intelligence and interpersonal communication ethics should not be treated as equivalent to affective learning outcomes. Although both constructs support student development, their relationships may differ according to educational level, classroom context, assessment methods, and instrument characteristics. The findings contrast with previous studies reporting significant relationships among emotional intelligence, communication, and learning outcomes because those studies examined different populations, settings, and outcome measures. Therefore, the nonsignificant results should be understood as context-specific evidence rather than evidence that emotional intelligence or ethical communication lacks value. This study contributes to education research by examining both constructs among prospective madrasah teachers and identifying a context where their associations with affective outcomes were unsupported. Nevertheless, the purposive sample of 90 students and questionnaire design restrict generalizability and interpretation. Future studies should use larger samples, validated instruments, reliability testing, behavioral observations, and factors such as instructional climate, motivation, and learning experiences.

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