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Research Article

Social-Emotional Skills of Elementary School Students: A Comparative Analysis Based on Ability Levels (HAS vs STD) in Rural and Urban Areas

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Abstract: Student development in elementary school is not based solely on academic ability but also on social-emotional skills (SES), which support self-regulation, peer relationships, and adaptation to school demands. Comparative evidence on how SES varies according to cognitive ability level and place of residence remains limited. This study analyzes differences in SES among elementary school students based on ability level (High-Ability Students/HAS vs. Standard Students/STD) and residential context (rural vs. urban), including the interaction between the two. A comparative quantitative approach with a 2x2 factorial design was used. Data were collected from 240 fourth- and fifth-grade students (103 HAS, 137 STD) using the Fair Cultural Intelligence Test (CFIT), a sociodemographic questionnaire, and the EACSE-CA scale, which consists of five dimensions of SES. The data were analyzed using descriptive statistics, Cramer's V, Levene's test, MANOVA with Pillai's Trace, and univariate F-tests. Ability level significantly affected all five SES dimensions ($F = 4.255$, $p = 0.001$, partial eta squared = 0.084), while residence and the ability-residence interaction were not significant. HAS students scored higher than STD students in basic skills, interpersonal relationships, problem-solving, and emotional regulation, with no difference in goal-setting. SES differences are driven more by cognitive ability level than by residential area. The study enriches the empirical literature on elementary students' SES through a novel comparative design integrating CFIT and sociodemographic data, offering a foundation for adaptive, ability-sensitive social-emotional learning strategies applicable across both rural and urban schools.

Keywords: high ability students (HAS), standard students (STD), rural-urban context, social-emotional skills.

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INTRODUCTION

Student development in elementary school is not only influenced by academic ability, but social-emotional skills also play a crucial role in adaptation, interpersonal relationships, self-control, and success in meeting the demands of the learning environment. At the elementary school level, these skills serve as a foundation because students are in a developmental phase where they begin to from a sense of self, develop interpersonal skills, and learn to regulate their social behavior. Differences in individual characteristics and learning environments, including variations between rural and urban contexts, can influence students' social experiences and lead to disparities in social-emotional skill levels among different groups of students (Widiastuti, 2022). Conceptual models of social-emotional learning suggest that social-emotional competencies lay the groundwork for better academic achievement, more positive attitudes toward school and oneself, a more supportive learning environment, and reduced school-related anxiety, all of which contribute to improved academic performance (Mella et al., 2021). Research is needed to analyze differences in order to gain a more comprehensive understanding and provide a basis for designing learning strategies that optimally support the social-emotional development of all students.

Gifted students are typically recognized for their superior thinking abilities, how quickly they absorb new ideas, and their problem-solving skills, which are more advanced than those of typical children. However, this cognitive superiority is often misinterpreted as evidence of balanced social-emotional development. On the contrary (Rinn, 2023) found that gifted individuals may have distinct psychosocial needs, including in terms of social adaptation and the need for emotional support. Research (Rocha et al., 2024) support these findings by observing differences in social-emotional characteristics between high-achieving students and their peers, particularly regarding emotional regulation and social interaction. Nevertheless, these two studies, like many other studies on gifted children, have only gone so far as to confirm the existence of these differences, without delving deeper into whether and how these differences are influenced by environmental factors such as students' geographic location.

Research on students with average abilities, however, highlights a different issue: significant diversity in abilities and learning experiences within this group. (Hairunnisa et al., 2025) indicate a positive correlation between emotional intelligence and social skills among elementary school students. Meanwhile, Research (Azzahra et al., 2024) emphasize the need for a more in-depth analysis of students' social-emotional skills, given their role in determining students' readiness to meet academic demands. If these two findings are linked to the research results on gifted students mentioned above, a question arises that has not

been fully answered in the literature: Do the differing patterns of social-emotional skills between high-achieving and average students remain consistent across different regions, or do they vary depending on the characteristics of the environments in which students are raised and educated.

Over the past twenty years or so, research on social-emotional learning (SEL) has continued to evolve, and a number of major studies, such as the meta-analysis by (Durlak et al., 2011) and the findings of (Green et al., 2021), have repeatedly shown that SEL programs are indeed capable of promoting self-regulation, social awareness, interpersonal skills, and positive behavior in students. However, since these studies generally stem from program evaluation models, students tend to be viewed merely as recipients of interventions, without much emphasis on the role of each child's cognitive capacity in determining how effectively these social skills are actually acquired. This issue becomes even more urgent to examine when considered in light of the findings by (Lestari & Azizah, 2023), who concluded that school culture and teacher quality are the primary external factors shaping students' social-emotional skills. In fact, according to Vygotsky's theory of cognitive-social development, the way a child responds to social-emotional stimuli is fundamentally influenced by the extent of their cognitive maturity, while the social experiences they undergo are shaped differently depending on the environment in which they are raised.

One tangible manifestation of these environmental differences can be seen in the characteristics of rural districts compared to cities: children in cities generally have easier access to educational facilities, technology, and various self-development programs, whereas in rural districts, the community is more diverse and features closer, community-based interactions. However, although research on social-emotional learning has grown rapidly, studies that specifically compare the social-emotional skills of elementary school students based on their intellectual ability levels while considering rural and urban contexts remain limited. The majority of studies focus more on the implementation of Social-Emotional Learning (SEL) programs than on analyzing differences in students' individual characteristics (Lovett et al., 2024). Therefore, this study aims to address this gap by examining the differences in social-emotional skills among elementary school students based on their intellectual ability levels in both rural and urban settings.

Such differences in environmental conditions, in turn, influence the extent to which students have opportunities to hone their communication, collaboration, and emotional regulation skills; consequently, results cannot simply be generalized across regions. However, based on the literature review conducted, no study has yet been found that systematically examines how cognitive capacity interacts with the geographical context of districts and cities in shaping the social-emotional competency profiles of elementary school students, as the majority of existing studies remain focused on the general implementation of SEL programs rather than exploring differences in students' individual characteristics within their respective environmental contexts. It is precisely this gap that prompted this study, which shifts the perspective from a uniform program evaluation model toward a differential analysis approach that integrates measurements of intellectual ability via the CFIT, sociodemographic data, and the regional context of districts and cities simultaneously to capture patterns of variation in students' social-emotional competencies. Therefore, this study aims not only to map differences between groups based on intellectual ability but also to uncover patterns of interaction that can bridge the gap between standardized SEL program designs and the reality on the ground that students themselves are highly diverse.

The urgency of this research stems from the growing importance of students' holistic development, that is, a balance between academic and social-emotional skills. Several studies indicate that SEL programs can improve emotional regulation, peer relationships, prosocial behavior, and student engagement in learning (Daunic et al., 2021). Social-Emotional Learning (SEL) has been shown to have a positive impact on student well-being, increased prosocial behavior, and the quality of learning in elementary schools (Cipriano et al., 2023; Minarti et al., 2025). This study makes an important contribution to enriching the empirical literature on elementary school students' social-emotional skills through a comparative analysis based on ability levels and regional characteristics. These findings are expected to serve as a foundation for developing more adaptive and context-specific social-emotional learning strategies for schools in rural and urban areas. Measurements of social-emotional skills among elementary school students continue to be refined to obtain a more accurate picture of students' developmental status (Murano et al., 2020). This study has limitations regarding the scope of the research area, which does not yet represent the overall conditions in elementary schools across Indonesia, and the use of questionnaires, which still relies on respondents' subjectivity in providing answers.

Based on the discussion above, this study aims to examine differences in students' social-emotional skills in elementary school based on their ability levels (HAS and STD) and to determine the influence of district and city contexts on students' social-emotional competencies. The hypotheses of this study are that there are significant differences in social-emotional skills between students in the HAS and STD groups, while the school district is not expected to have a significant effect on students' social-emotional competencies, and that there is an interaction between academic ability level and place of residence on social-emotional competencies.

THEORETICAL FRAMEWORK

Regional Context: Characteristics of Districts and Cities

The regional context in which students come from is another important external factor that shapes their primary social stimuli received during their time in elementary school. For our study, regional context was determined by whether students attended school in an urban vs. rural area of Indonesia. We found that students from areas with higher levels of urban development had higher academic achievement, signifying structural and resource differences between urban and rural areas (Aditia & Széll, 2025). Physical and structural differences between urban and rural schools also indirectly impact how students interact with their immediate environments on a daily basis.

On average, students from an urban environment tend to grow up with greater access to digital media, information hubs, and more diverse social settings (Rocha et al., 2024). Each of these factors presents students with unique obstacles and opportunities to learn how to adapt to social settings. In contrast, children who grow uin rural areas experience a greater deal of communal and familial homogenity. Neighborly concern and mutual cooperation are just a few prosocial values that act as social capital for children in these areas (Xu et al., 2022). Due to these differences, we operationalized regional background as the second independent variable in our study.

Social-Emotional Skills

Social-Emotional Skills refer to an individual' capacity to identify and manage emotions to set positive goals, establish positive relations with others, and make responsible decisions across

diverse situations CASEL (Oberle et al., 2016). (Gaspar et al., 2018) explain that SES are multidimensional constructs made of five basic competencies, which include; goal setting, problem solving skills, basic social skills, emotional regulation skills, and interpersonal skills. These 5 skills develop dynamically as children learn more social skills from their interactions at home and school.

The CASEL theoretical framework (Oberle et al., 2016) indicates that each area of social-emotional competence is linked and plays a crucial role in promoting students' academic performance and mental well-being. (Gaspar et al., 2018) assert that social-emotional skills are not static, inherent traits, but rather capabilities that can be developed and refined through specific interventions. Progress can be quantitatively evaluated using standardized measures such as the Escala de Avaliação de Competências Socio-Emocionais para Crianças e Adolescentes (EACSE-CA), and these competencies can be encouraged through suitably designed educational programs in elementary schools.

Social-Emotional Skills High-Ability Students (HAS) and Standard Students (STD)

In this study, the main variable investigated was students' cognitive ability level, which was divided into two groups: High-Ability Students (HAS) and Standard Students (STD) based on their CFIT test scores. The HAS group consists of students with above-average intellectual ability (IQ ≥ 110), while the STD group includes students with intellectual ability within the average range (IQ ≤ 109). This classification is important for understanding how differences in cognitive ability can affect children's mental and psychosocial readiness for school.

Differences in cognitive abilities between the two groups are expected to result in different social-emotional skills (SES) profiles. Students with HAS typically excel in problem-solving and goal-setting due to their high analytical abilities, but they are at risk of experiencing difficulties in social relationships due to a mismatch between cognitive and emotional development (developmental asynchrony) (Neihart et al., 2016) . On the other hand, students with STD exhibit a more consistent and age-appropriate pattern of competency development, although they still face adaptive challenges in meeting the demands of the school curriculum (McCoach et al., 2024). This contrast underscores the importance of empirical testing to examine differences in SES profiles between the two groups.

These differences in cognitive capacity cannot be understood in isolation but are also linked to the regional environment mentioned earlier. The CASEL framework (Oberle et al., 2016) explains that social-emotional skills develop through learning that is influenced by a child's innate traits as well as the environment in which the child interacts. Therefore, it can be assumed that thinking abilities and regional background both play a role in shaping students' SES characteristics, both independently and in relation to one another. Students with high cognitive abilities who live in rural areas may benefit from strong social ties within their communities, which could help bridge the gap between their cognitive and emotional maturity. Conversely, students with high cognitive abilities living in urban areas may face more complex and varied social demands, making the gap between their cognitive and emotional abilities feel more pronounced. Nevertheless, such assumptions remain tentative, given the complexity of the interactions between individual and environmental factors. It is possible that the effects of these interactions are not clearly evident in empirical testing, especially if the influence of regional context is determined more by aspects such as the quality of classroom interactions rather than simply the designation of the area where students live.

This study identifies the examination of the main effects and interaction effects between cognitive ability and regional context as empirical questions that still require further investigation. Thus, regardless of whether the results prove to be significant or not, both remain important to understand. This theoretical argument forms the basis for the selection of a 2x2 factorial design in this study, as this design allows for the testing of the main effects of each factor as well as their interaction effects, as will be further elaborated in the Methods section.

METHODS

Research Design

This study employed a comparative quantitative approach with a 2 × 2 factorial design. The quantitative approach was chosen because the primary objective of this study was to objectively measure, describe, and compare students' Social-Emotional Skills (SES) profiles based on numerical data from a standardized instrument (Huyler & McGill, 2019). A 2 × 2 factorial design was used to test the effects of two independent variables, school location and students' cognitive ability level, as well as the relationship between these two variables on students' social-emotional skills in elementary school. Through this design, the researcher was able to understand the main effects of each variable as well as the interaction effects between cognitive ability level (HAS/STD) and school location (urban and rural) regarding the five dimensions of social-emotional skills under investigation, aspects that cannot be accommodated through a partial univariate approach (Huberty & Olejnik, 2005).

Subject/Sample

The total sample size for this study was 240 students from fourth and fifth grades at elementary schools selected using purposive sampling based on school location and grade level. The selection of fourth- and fifth-grade students was based on the consideration that students at these levels have the ability to understand the research instrument individually and are at a stage of social-emotional development suitable for assessment using the EACSE-CA instrument. The inclusion criteria for the study were students who were enrolled as active students during the academic year of the study, participated in the entire data collection process, and obtained consent from the school or a guardian to participate. Students who did not participate in all stages of data collection or whose data were incomplete were not included in the analysis. Based on the classification of results from the Adil Cultural Intelligence Test (CFIT) Form B, the sample was divided into 103 students in the High-Ability Students (HAS) group and 137 students in the Standard Students (STD) group. Rather than providing a narrative description of demographic details that could result in repetitive information, the distribution of participant characteristics based on gender, grade level, and residential area is presented concisely and systematically in Table 1.

Table 1. Sample Distribution

Karakteristik	HAS (n=103)	STD (n=137)	Total (n=240)
Gender			
Male	49 (47,6%)	67 (48,9%)	116 (48,3%)
Female	54 (52,4%)	70 (51,1%)	124 (51,7%)
Grade			
Grade 4	33 (32,0%)	80 (58,4%)	113 (47,1%)
Grade 5	70 (68,0%)	57 (41,6%)	127 (52,9%)
Region			

Rural	57 (55,3%)	57 (41,6%)	114 (47,5%)
Urban	46 (44,7%)	80 (58,4%)	126 (52,5%)

Prior to conducting the study, the researcher obtained a research permit from their home institution as the first step in carrying out fieldwork. The study was then conducted after obtaining permission from the principal of the school serving as the research site and approval from the homeroom teacher who supervised the data collection process. All respondents were briefed on the study's objectives and procedures, and the students' identities were kept confidential. The data collected was used solely for academic purposes and analyzed in an aggregated manner so as not to reveal the identities of the study participants.

Data Collection Techniques and Instruments

Data collection in this study combined three types of formal quantitative instruments appropriate for the developmental characteristics of elementary school-aged children. The first instrument is the Fair Cultural Intelligence Test (CFIT) Form B, developed by Raymond B. Cattell, which is used to measure general intelligence (fluid intelligence) more objectively by minimizing the influence of language and culture, although there are still some cross-cultural differences in visuospatial abilities that must be taken into account (Gonthier, 2022). This test consists of four subtests: "Series," which measures understanding of the relationships between images; "Classification," which measures the ability to categorize objects based on their characteristics; "Matrices," which measures spatial reasoning through the completion of matrix patterns; and "Condition," which measures the ability to draw logical conclusions from relationships between images or symbols.

In this study, no treatment was administered to the research subjects; participants were simply grouped based on the characteristics each student already possessed. The Culture Fair Intelligence Test (CFIT) Form B-2 was administered to all study participants in accordance with standard administrative procedures. The test results were then converted into IQ scores based on the rules outlined in the CFIT guidelines. Cognitive ability grouping was conducted after all test results were obtained. Students with IQ scores of 110 or higher were classified as High Ability Students (HAS) because they fall into the above-average intellectual ability category, while students with IQ scores of 109 or lower were classified as Standard Students (STD), representing average intellectual ability. These score ranges were established in accordance with the standards outlined in the CFIT manual to ensure that the grouping process was conducted objectively and consistently for all study participants prior to statistical analysis.

The second instrument was a sociodemographic questionnaire; the aspects measured included: characteristics of the social environment; friendships; satisfaction with education, family, self, physical abilities, academic abilities, relationships with friends, and the social environment. The questionnaire was designed using a five-point Likert scale with the following response options: VB (very poor), B (poor), R (fair), G (good), and VG (very good). The third instrument is the Social-Emotional Skills Scale (Escala de Avaliação de Competências Socio-Emocionais para Crianças e Adolescentes / EACSE-CA), adapted from (Gaspar et al., 2018). This scale measures five main dimensions of students' psychosocial competencies: goal setting, which assesses students' ability to achieve goals in a focused manner; problem-solving, which demonstrates students' ability to resolve problems they face; basic social skills, which provide insight into how students communicate and interact with others;

emotional regulation, which demonstrates the ability to manage emotions; and interpersonal relationships, which assess students' ability to build and maintain social relationships. All respondents were administered the instrument using the same measurement procedures so that the results could be compared across research groups.

Validity and Reliability Testing

The KSE instrument (EACSE-CA) was first pilot-tested on 60 elementary school students outside the main research sample before the main data collection was conducted. The psychometric properties were evaluated using a Partial Least Squares Structural Equation Modeling (PLS-SEM) approach with the assistance of SmartPLS software. Convergent and discriminant validity tests were based on the Fornell-Larcker criteria; all indicator components were deemed valid because they met the minimum threshold for Average Variance Extracted (AVE) of 0.50 (with AVE values ranging from [0.651] to [0.747] in the test results). In addition, the reliability of the instrument was confirmed by the Composite Reliability (CR) values, all of which were above the statistical acceptance threshold of 0.70, with a CR range of [0.790] to [0.855]; thus, all instrument items were deemed appropriate and consistent for use.

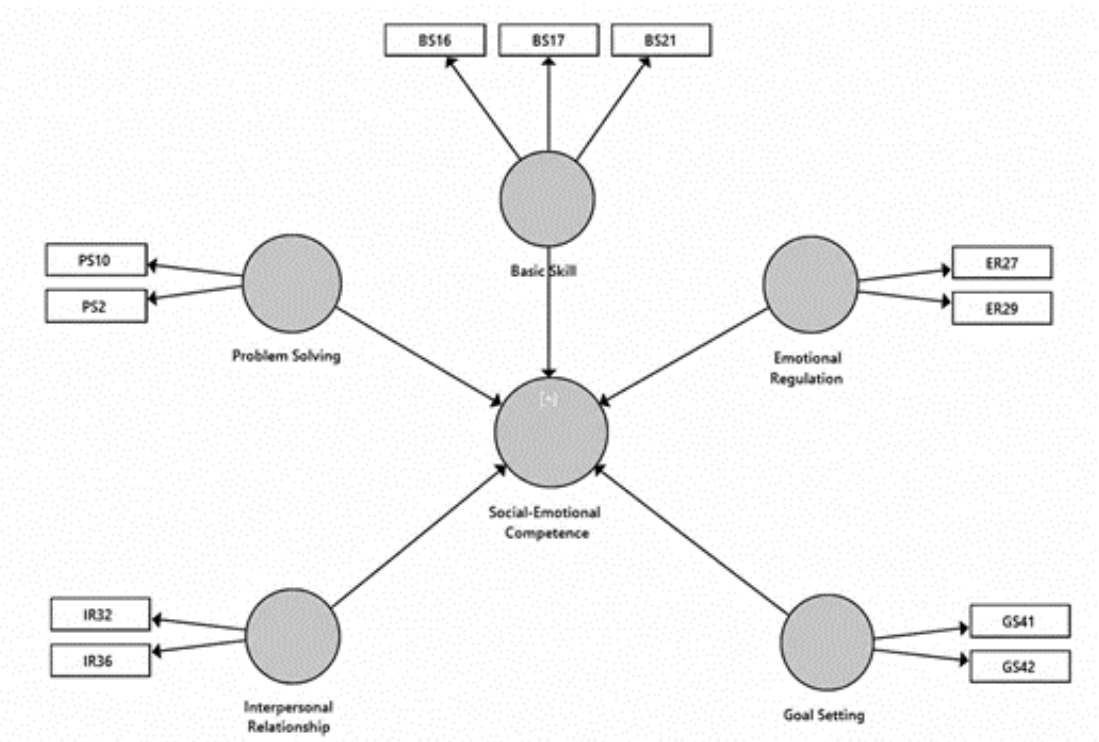

Figure 1. Validity and Reliability Test Results: The EACSE-CA Instrument Using SmartPLS

Table 2. Results of Reliability and Construct Validity Testing

Construct	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Basic Skill	0.732	0.733	0.848	0.651
Emotional Regulation	0.496	0.500	0.798	0.664
Goal Setting	0.565	0.695	0.809	0.683
Interpersonal Relationship	0.661	0.666	0.855	0.747
Problem Solving	0.480	0.507	0.790	0.654

Data Analysis Techniques

Quantitative data analysis was conducted in stages using SPSS version 29 through several stages of inferential testing. The first stage involved descriptive frequency analysis and Cramer's V coefficient tests to examine the strength of relationships and distribution patterns in the students' sociodemographic categorical data. The second stage involved testing the assumptions of multivariate parametric analysis using Levene's test of equality of error variances to determine whether error variances were equal across all sample groups a key prerequisite before conducting multivariate statistical (Tabachnick & Fidell, 2019).

The third stage involves multivariate analysis using Multivariate Analysis of Variance (MANOVA), guided by Pillai's Trace statistics. Pillai's Trace was chosen because it demonstrates a very high level of robustness in maintaining the accuracy of analysis results even when the assumption of homogeneity of variances is violated (Huberty & Olejnik, 2005). If the results of the multivariate statistical test indicate a significant effect ($p < 0.05$), the analysis proceeds to the fourth stage, namely univariate analysis (F-test for Between-Subjects Effects), to identify which specific KSE dimensions are capable of distinguishing one group from another.

RESULT

General Characteristics and Social Relationships of Elementary School Students

In general, the majority of students in both groups reported having friends, and the relationship between ability level and friendship status was very weak (Cramer's V = 0.027). Friend selection in both groups was primarily based on social characteristics and shared interests, with a weak relationship between ability level and friend selection criteria (Cramer's V = 0.160). In general, levels of satisfaction with school education, family upbringing, academic ability, athletic and motor skills, and peer relationships showed relatively similar patterns across both groups. The most notable difference was observed in satisfaction with self-concept, where HAS students frequently reported higher levels of satisfaction compared to STD students (Cramer's V = 0.149), although the correlation was still relatively weak. This finding is consistent with (Eisenberg et al., 2010), who noted that children with better emotional regulation tend to form healthier friendships.

Table 3. Sociodemographic Descriptive Analysis Results

Question	Category	HAS (N=51)	STD (N=92)	Cramer's V
Have Friends	Yes	82 (79.6%)	106 (77.4%)	0.027
	No	21 (20.4%)	31 (22.6%)	
Choice of friends	Mostly associated with interests	12 (11.7%)	33 (24.1%)	0.160
	Mostly associated with social characteristics	57 (55.3%)	66 (48.2%)	
	Mosly associated with physical characteristic	5 (4.9%)	5 (3.6%)	
	Mostly associated with emotional characteristic	18 (17.5%)	11 (10.7%)	
	Mosly associated with cognitive/intellectual characteristic	22 (16.1%)	11 (8.0%)	
Satisfaction with the	VB	12 (11.7%)	18 (13.1%)	0.083
	B	18 (17.5%)	24 (17.5%)	

education received at school	R	17 (16.5%)	16 (11.7%)	
	G	33 (32.0%)	51 (37.2%)	
	VG	23 (22.3%)	28 (20.4%)	
Satisfaction with the care provided by my family	VB	14 (13.6%)	21 (15.3%)	0.035
	B	21 (20.4%)	25 (18.2%)	
	R	17 (16.5%)	23 (16.8%)	
	G	24 (13.3%)	33 (24.1%)	
	VG	27 (26.2%)	35 (25.5%)	
Satisfaction with self-concept personal self-esteem	VB	18 (17.5%)	24 (17.5%)	0.149
	B	13 (12.6%)	21 (15.3%)	
	R	20 (19.4%)	21 (15.3%)	
	G	23 (22.3%)	45 (32.8%)	
	VG	29 (28.2%)	26 (19.0%)	
Satisfaction with sports and motor skills	VB	9 (8.7%)	20 (14.6%)	0.106
	B	25 (24.3%)	25 (18.2%)	
	R	26 (25.2%)	34 (24.8%)	
	G	27 (26.2%)	36 (26.3%)	
	VG	16 (15.5%)	22 (16.1%)	
Satisfaction with the ability to learn school content	VB	16 (15.5%)	26 (19.0%)	0.063
	B	21 (20.4%)	23 (16.8%)	
	R	20 (19.4%)	25 (18.2%)	
	G	31 (30.1%)	44 (32.1%)	
	VG	15 (14.6%)	19 (13.9%)	
Satisfaction with social relationship with peers	VB	18 (17.5%)	17 (12.4%)	0.108
	B	15 (14.6%)	30 (21.9%)	
	R	25 (24.3%)	33 (24.1%)	
	G	30 (29.1%)	37 (27.0%)	
	VG	15 (14.6%)	20 (14.6%)	

Descriptive Statistics on Social-Emotional Skills

Based on the dimensions of social-emotional skills, HAS students achieved higher average scores compared to STD students across all competencies, in both rural and urban areas. The most consistent differences were observed in problem-solving, basic skills, emotional regulation, and interpersonal relationships, while goal-setting scores tended to be similar across both groups. Furthermore, the average differences between students from rural and urban areas were relatively small in both groups. This is consistent with the findings of (Curby et al., 2015), who stated that students with high academic ability tend to have better social-emotional skills

Table 4. Descriptive Statistics of Social-Emotional Competencies by Group and Region

Groups	Problem resolution	Basic skills	Emotional regulation	Interpersonal Relationships	Goal setting
HAS					
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Kab	6.59 (1.36)	10.96 (0.94)	5.04 (1.66)	6.39 (1.29)	5.28 (1.57)
Kota	6.23 (1.36)	10.75 (1.64)	5.19 (1.51)	6.28 (1.42)	5.05 (1.11)
STD					

Kab	5.88 (1.48)	10.26 (1.38)	4.69 (1.72)	5.54 (1.65)	5.15 (1.41)
Kota	5.86 (1.51)	10.04 (1.60)	4.53 (1.69)	5.98 (1.51)	5.04 (1.65)

Test of Homogeneity of Variances

The results of Levene's test are presented in Table 3. The assumption of homogeneity of variances was met for problem-solving competence, emotional regulation, and interpersonal relationships ($p > 0.05$), whereas for basic skills competence and goal setting, the assumption of homogeneity was violated ($p < 0.05$). Therefore, multivariate analysis was conducted using Pillai's Trace, which is recommended because it is more robust to violations of the assumption of homogeneity of variances and differences in sample sizes (Tabachnick & Fidell, 2019).

Table 5. Levene's Test for Homogeneity of Variances

Competencies	Levene	Df. 1	Df. 2	*p*
Problem Solving	0.132	3	236	0.941
Basic Skill	3.464	3	236	0.017
Emotional Regulation	0.892	3	236	0.446
Interpersonal Relationship	1.471	3	236	0.223
Goal Setting	3.049	3	236	0.029

Multivariate Differences Based on Ability, Residence, and Their Interactions

The results of the MANOVA using Pillai's Trace indicate that ability level has a significant multivariate effect on all social-emotional competencies ($F = 4.255$; $p = 0.001$; partial $\eta^2 = 0.084$). Furthermore, neither the residence factor nor the interaction between ability and residence showed a significant effect ($p > 0.05$). These results demonstrate that variations in social-emotional skills are strongly influenced by students' ability levels rather than their residential location. These findings support the results of a study by (Durlak et al., 2011), which indicated that social-emotional interventions should focus on students' individual characteristics rather than geographic factors.

Table 6. Manova Results

Effect	Pillai trace	F (5,232)	*P*	*η 2 partial*
Ability	0.084	4.255	0.001	0.084
Domicile	0.022	1.067	0.380	0.022
Interaction	0.018	0.840	0.522	0.018

Univariate Differences Across Each Competency

The results of the univariate analysis show that HAS students scored significantly higher than STD students in the competencies of basic skills, interpersonal relationships, problem-solving, and emotional regulation. Among all competencies, only basic skills showed the largest effect size. Conversely, no significant difference was found for the goal-setting competency ($p = 0.692$). Overall, these results indicate that HAS students possess superior social-emotional competencies compared to STD students, particularly in basic skills, interpersonal relationships, problem-solving, and emotional regulation. These findings are consistent with (Denham, 2006) research, which found that children with higher cognitive abilities tend to demonstrate better social and emotional competencies.

Table 7. Between-Subjects Effects (F-Test) Results

Competencies	Mean Square	F (1,236)	*P*	*η 2 partial*
Problem Solving	16.836	8.162	0.005	0.033
Basic Skill	28.812	13.994	<0.001	0.056
Emotional Regulation	15.085	5.526	0.020	0.023
Interpersonal Relationship	19.144	8.503	0.004	0.035
Goal Setting	0.325	0.157	0.692	0.001

The results indicate that students with high abilities (HAS) have better social-emotional skills than students with typical development (STD), particularly in the areas of basic skills, interpersonal relationships, problem-solving, and emotional regulation, regardless of place of residence or the relationship between ability and region.

DISCUSSION

This study was conducted to investigate differences in the social-emotional skills of elementary school students based on their academic ability level (HAS vs. STD) and to determine the impact of district and city contexts on students' social-emotional competencies. The results of the multivariate analysis using Pillai's Trace demonstrated that only the ability factor (HAS vs. STD) had a significant simultaneous effect on all five social-emotional competencies ($F = 4.255$; $p = 0.001$; partial $\eta^2 = 0.084$), whereas the effect of residential area showed no significant impact ($F = 1.067$; $p = 0.380$), nor did the interaction between ability and residential area ($F = 0.840$; $p = 0.522$).

The findings indicate that students' level of cognitive ability is a stronger predictor of differences in social-emotional skills than their residential area. These results indicate that the development of social-emotional skills among elementary school students is more likely to depend on individual mechanisms than on broader geographic contexts. Thus, the influence of context on social-emotional development is better understood in terms of more localized environments ranging from the quality of classroom interactions, teacher support, and school conditions to the family environment rather than solely through performance measures such as districts and cities. (Boman, 2023) found that non-cognitive abilities play a significant role in academic achievement and that their presence mitigates the impact of socioeconomic status on student grades. These findings reinforce the notion that individual characteristics can serve as a significant mediating factor in the influence of environmental conditions on student development.

Based on the univariate analysis, HAS students significantly outperformed STD students in four of the five competencies measured. The most notable difference was found in basic skills, followed by interpersonal relationships, problem-solving, and emotional regulation. On the other hand, no significant differences were found between the groups in the goal-setting competency ($F = 0.157$; $p = 0.692$; partial $\eta^2 = 0.001$). This finding is quite interesting because it shows that superior cognitive abilities do not automatically translate to all dimensions of social-emotional skills. One possible explanation is that goal-setting competence develops largely through habituation, socialization, and guidance provided by teachers or parents, resulting in similar learning experiences for all students at the elementary school level, which in turn leads to comparable levels of competence between HAS and STD students. However, this study did not directly measure the quality of support provided by teachers or parents in goal development; therefore, this explanation requires verification through further research.

These findings, consistent with research by (Rocha et al., 2024), indicate differences in social-emotional characteristics between high-ability students and typically developing students, particularly in the areas of emotional regulation and social relationships. High-ability students demonstrate strengths in problem-solving and basic skills, which reflect their superior analytical and cognitive capacities. The relationship between cognitive ability and social-emotional competence was carefully selected, allowing each dimension of social-emotional competence to follow a distinct developmental trajectory.

The theoretical implication of these findings is that social-emotional skills need to be understood as a multidimensional construct that does not develop uniformly according to a single factor. The results of this study indicate that some dimensions, such as problem-solving, basic skills, interpersonal relationships, and emotional regulation, are more closely related to individual characteristics, whereas other dimensions, such as goal-setting, are likely more influenced by students' socialization experiences and educational practices. Therefore, conceptual models of social-emotional competence development need to account for the fact that each dimension may be influenced by a combination of individual and environmental factors in varying proportions.

The non-significant effect of place of residence on students' social-emotional skills also has important theoretical implications. The absence of a significant effect does not mean that the environment plays no role in social-emotional development; rather, it suggests that the classification of administrative regions (regencies and cities) may not be sensitive enough to represent students' actual social experiences. Factors more closely tied to students' daily lives, such as the quality of teacher-student relationships, classroom climate, opportunities to interact with peers, and family parenting styles, are likely more relevant determinants than general geographic categories. These findings are consistent with those of (Hakim et al., 2024), who showed that the effectiveness of social-emotional learning is determined more by the quality of interactions and emotional discussions that take place in the classroom than by the geographic characteristics of the school.

According to (Fadillah et al., 2025), research on the internalization of social and humanistic values among elementary school students in Indonesia indicates that moral knowledge is rarely translated into behavior in daily life. These results, along with the research findings, support the importance of implementing social-emotional learning that emphasizes active, reflective, and contextual learning experiences. Therefore, SEL interventions in elementary schools should not be designed solely based on regional characteristics but must also focus on enhancing the quality of learning interactions, teacher support, and the social-emotional experiences that students directly encounter.

CONCLUSION

The results of this study indicate that differences in students' cognitive ability levels (HAS vs. STD) have a significant impact on most aspects of social-emotional skills. However, the region (district/city) factor and its interaction with cognitive ability were not found to have a significant influence. These findings contribute to the empirical literature on the social-emotional skills of elementary school students through a relatively new comparative analytical approach. This approach combines measures of intellectual ability using the CFIT with sociodemographic data to uncover patterns of variation in students' social-emotional competencies. From a practical perspective, educators are encouraged to develop social-

emotional learning programs tailored to students' cognitive ability levels. For example, providing additional support in the areas of emotional regulation and interpersonal relationships for HAS students who may be experiencing developmental delays. Meanwhile, education policymakers can use the non-significant findings regarding regional factors as a preliminary consideration in designing equitable SEL programs across all schools, although broader policy conclusions still require support from larger-scale research. This study has several limitations, namely that its geographic scope does not yet cover all elementary schools in Indonesia; therefore, generalizations of the findings must be made with caution. Furthermore, the use of a Likert scale carries the risk of being influenced by respondents' social desirability bias. The cross-sectional study design is also unable to demonstrate changes in students' social-emotional skills over time, and potential mediating factors-such as the quality of teacher-student interactions and the family environment-have not been tested. Therefore, future research is expected to expand its geographic scope with a larger sample and more diverse sociodemographic backgrounds. Furthermore, it is recommended to adopt a longitudinal approach to obtain a more comprehensive picture of students' social-emotional skill development, as well as to investigate the role of mediating factors such as the quality of teacher-student interactions and the family environment.

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