



Students' Sense of School Belongingness and Expectations from Education as Determinants of Their Classroom Engagement and Achievement

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Abstract

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This study examined the extent to which students' sense of school belongingness and expectations from education are associated with classroom engagement and academic achievement among high school students in the Gamo and Konso Zones of Southern Ethiopia. A cross-sectional descriptive survey design was employed. A sample of 384 students was initially drawn using multistage cluster sampling; after excluding incomplete questionnaires, data from 353 students were analyzed. Pearson product-moment correlation, multiple linear regression, and independent-samples t-tests were conducted using SPSS version 25. The findings showed that sense of school belongingness and educational expectations were significantly associated with both classroom engagement and academic achievement, with stronger associations for classroom engagement. Together, the predictors explained 31.5% of the variance in classroom engagement ($R^2 = .315$, $F(2, 350) = 80.12$, $p < .001$) and 11.9% of the variance in academic achievement ($R^2 = .119$, $F(2, 350) = 23.47$, $p < .001$), indicating moderate and modest explanatory power, respectively. Male students achieved significantly higher academic scores than females, whereas no significant gender difference was found for classroom engagement. The findings highlight the importance of fostering students' sense of school belongingness and positive educational expectations to enhance educational outcomes. Future longitudinal studies are recommended to establish causal relationships among these variables.

Keywords: sense of school belongingness, educational expectations, classroom engagement, academic achievement, Ethiopia

INTRODUCTION

Students' academic success depends not only on their intellectual ability, but also on the psychological experiences they have within school. Among these experiences, students' sense of belonging has consistently been identified as an important factor influencing academic achievement, persistence, and engagement (Wilson et al., 2015). Belongingness shapes how

people think and behave. According to Baumeister and Leary (1995), people often interpret situations and events based on what they mean for their relationships with others. From an evolutionary perspective, the tendency to seek acceptance and avoid rejection has been considered important for human survival and adaptation (Malone et al., 2011).

In educational settings, school belongingness plays an important role in students' academic achievement and psychological well-being. School belongingness refers to the extent to which students feel personally accepted, respected, included, and supported by others at school (Goodenow, 1993). When students feel that they belong at school, they are more likely to develop positive academic attitudes, stronger motivation, healthy social relationships, and greater engagement in learning (Osterman, 2000). On the other hand, students with a weak sense of belonging are less likely to participate in class, seek help when they face difficulties, or engage in behaviors that support academic success (Ingram, 2012). School belongingness has also been linked with academic achievement, attendance, preparedness, homework completion, and participation in school and extracurricular activities (Vural et al., 2013).

Students' expectations from education are another important psychological factor that may influence their academic behavior and success. Previous studies have shown that students who hold positive expectations about education are more likely to engage in behaviors that promote academic achievement and educational attainment. For example, Zhang (2014) reported that students' educational expectations are associated with behaviors that support academic success and educational attainment. Similarly, Bakar and Mohamed (2004) found a significant, although relatively weak, relationship between educational aspirations and academic achievement among Malaysian secondary school students. In the present study, students' expectations from education refer to what students believe they will gain from completing secondary school and pursuing higher education. Like similar concepts used in previous studies, it is a motivational construct that reflects what encourages students to continue working toward their educational goals. The definition adopted in this study is mainly based on the social and cultural values attached to education in the study areas.

Classroom engagement is another important educational outcome because it reflects students' active participation in learning. Students who are engaged in classroom activities are more likely

to pay attention, participate in discussions, complete learning tasks, and persist when faced with academic challenges (Fredricks et al., 2004). Empirical studies have consistently shown that higher classroom engagement is associated with better academic achievement, greater persistence, and more positive educational experiences (Hart et al., 2011; Wilson et al., 2015; Yoon et al., 2015). Therefore, examining classroom engagement together with academic achievement provides a more comprehensive understanding of students' educational experiences and success.

This study is guided by two complementary theories, namely the Belongingness Hypothesis (Baumeister & Leary, 1995) and Expectancy-Value Theory (Eccles & Wigfield, 2002). The Belongingness Hypothesis argues that the need to belong is a basic human need. In the school context, students who feel accepted, respected, and supported are more likely to participate actively in classroom learning and achieve better academic outcomes. Expectancy-Value Theory explains that students' learning behaviors are influenced by what they expect to gain from education and the value they attach to educational success. Students who believe that education will help them achieve their future goals are more likely to invest effort, persist when learning becomes difficult, and engage actively in classroom activities. Together, these theories provide a strong theoretical foundation for the present study. They suggest that students' sense of school belongingness and expectations from education are important motivational factors that can directly influence both classroom engagement and academic achievement. Guided by these theoretical perspectives, this study examines the independent and combined contributions of these two psychological variables to classroom engagement and academic achievement.

To define and measure students' expectations from education, the researchers reviewed relevant literature in psychology and education to identify the major dimensions of the construct. A previous study (e.g., Ridout, 2018) also informed the development of the measurement instrument. In addition, the researchers' experience with the local communities where the study was conducted helped to contextualize the construct and refine the assessment tool.

Despite growing evidence that psychological factors influence students' educational outcomes, research in Ethiopia has mainly focused on structural and environmental factors affecting academic achievement. Previous studies have examined teacher-related factors, parental involvement, school resources, and school climate (e.g., Mulisa & Kassahun, 2019; Getachew,

2018; Melesse & Molla, 2018; Akessa & Dhufera, 2015). Comparatively little attention has been given to students' psychological experiences in school, particularly their sense of school belongingness and expectations from education. Furthermore, to the best of the researchers' knowledge, no published study has examined how these two psychological variables are simultaneously related to both classroom engagement and academic achievement among secondary school students in Ethiopia in general and in the Gamo and Konso Zones in particular. Understanding these relationships may help educators and policymakers create school environments that improve not only students' academic performance but also their engagement and overall educational experience. Therefore, the present study seeks to fill this gap by examining the extent to which students' sense of school belongingness and expectations from education are associated with classroom engagement and academic achievement.

Accordingly, the following research questions guided the study:

1. Is there a statistically significant relationship between students' sense of school belongingness and expectations from education and their classroom engagement and academic achievement?
2. To what extent do students' sense of school belongingness and expectations from education jointly predict classroom engagement and academic achievement?
3. What are the independent contributions of students' sense of school belongingness and expectations from education to the prediction of classroom engagement and academic achievement?
4. Are there statistically significant gender differences in students' classroom engagement and academic achievement?

LITERATURE REVIEW

The Concept of Sense of School Belonging

School belonging is described by various terms in the literature. In a review of empirical studies on the sense of school belonging and its operationalization, Moallem (2013) noted that school membership (e.g., Goodenow, 1993) and school connectedness (e.g., Wilson, 2018) are widely used. According to Ingram (2012), sense of school belonging is the "extent to which students

identify with the values and goals of education and feel connected to others in the school, both peers and teachers." Thus, when students experience value or cultural conflicts with the institution, or perceive school activities as irrelevant, they may lack a sense of belonging.

This research defines sense of school belongingness as a four-factor construct, measured by the revised Hoffman et al. (2002-2003) scale. This approach assesses perceived peer support, classroom comfort, isolation, and faculty support. It captures the key aspects of belongingness identified in various empirical studies and reflects the relationships among students, between students and teachers, and with the overall classroom and school environment.

The Concept of Educational Expectation

Educational expectations refer to what students realistically believe they are likely to achieve through education, and they have been consistently associated with academic achievement and educational attainment (Khattab, 2015). Previous empirical studies have shown that students' educational expectations are positively related to academic performance across different educational levels. For example, Hao and Bonstead-Bruns (1998) found that students' educational expectations were positively associated with academic achievement. Similarly, Kao and Tienda (1998) reported that students with higher educational expectations were more likely to attain higher levels of education. Reynolds and Pemberton (2001) likewise found that higher educational expectations were associated with greater educational attainment among adolescents. Consistent with these findings, Grossman et al. (2011) reported that students' educational expectations, together with parental expectations, were positively related to academic achievement. Zhang (2014), in a review of empirical studies, similarly concluded that students' educational expectations are associated with behavioral choices that facilitate academic success and educational attainment.

The Concept of Student Engagement

Student engagement is a central idea for understanding how students behave in the teaching-learning process (Delfino, 2019). Although definitions and dimensions vary, student engagement is generally described as a multidimensional construct that encompasses participatory behavior, affective involvement, and, for some authors, cognitive elements. Some researchers further distinguish between academic and behavioral aspects of participation (Gutiérrez et al., 2016). Delfino (2019) defines school engagement in terms of student participation in academic

achievement, which supports essential outcomes like learning and graduation. To reduce confusion, previous research has reviewed diverse perspectives and generally concludes that student engagement consists of three major overlapping dimensions, which are related to constructs like school connectedness and bonding (Hart et al., 2011).

According to Appleton et al. (2008, as cited in Hart et al., 2011), school engagement is defined by affective, behavioral, and cognitive indicators, as well as personal and contextual facilitators that influence student engagement. This paper focuses on behavioral and cognitive indicators, since the affective component overlaps with the concept of “sense of belonging” discussed here. Behavioral engagement includes involvement in learning and academic tasks, such as effort, persistence, concentration, attention, asking questions, and class participation. Cognitive engagement refers to investment in learning through self-regulation, being strategic, seeking challenges, and a desire to go beyond requirements (Fredricks et al., 2004).

The Concept of Academic Achievement

Academic achievement is one of the most widely used indicators of students' educational success. It generally refers to the extent to which students attain the intended learning outcomes of schooling, as reflected in their performance on examinations, grade point averages, or teacher-assigned grades (Steinmayr et al., 2014). Academic achievement is influenced by a combination of cognitive, motivational, social, and environmental factors rather than by intellectual ability alone (Richardson et al., 2012). In educational research, it is commonly used as an outcome variable because it reflects students' mastery of academic content and serves as an important predictor of future educational and occupational opportunities (York et al., 2015). In the present study, academic achievement was measured using students' nearest-semester average obtained from official school records.

School Belonging and Academic Achievement

Various studies have shown that students' sense of school belongingness is linked to both behavioral and academic outcomes. For example, Allen and Bowles (2012) found that school belongingness significantly affects well-being factors, including life satisfaction, general well-being, clinical depression, cognitive performance, physical health, and academic results. In a study with 264 students from three Portsmouth, Virginia high schools, Wilson (2018) reported that

higher school connectedness corresponded with increased academic success, measured by self-reported grades. Additionally, Wilson's review of empirical literature indicated that a strong sense of belonging is associated with higher self-efficacy in academic achievement, which in turn relates to greater end-of-year academic achievement. A direct positive correlation was also identified between a higher sense of school belongingness and higher-grade point averages.

Goodenow (1993) also found that school belongingness was significantly related to academic outcomes for middle school students. However, it has been found that the sense of school belonging declines across grade levels, and its effect on academic motivation decreases as well over time. Building on this, Wilson (2018), using a regression model, found a statistically significant relationship between overall school connectedness and academic achievement. More recently, Ordaz and Mosqueda (2021) examined the effect of race/ethnicity, immigrant status and the role of school belonging on the academic achievement of racially diverse high school students. Their study similarly found that school belonging had a statistically significant association with academic achievement. It seems wise, however, to note that their study consisted of a heterogeneous population that had different immigration statuses, and thus, their need for belongingness might be strongly influenced by it.

Overall, these studies show that students' sense of school belongingness is positively associated with academic achievement. However, the strength of this relationship varies across studies, suggesting that factors such as students' age, educational level, school climate, and cultural background may influence the relationship. In addition, most of the studies were conducted in Western countries. Therefore, it is not clear whether similar findings apply to Ethiopian secondary schools. This highlights the need for studies conducted in the Ethiopian context to examine whether the relationship between school belongingness and academic achievement is similar.

Educational Expectations and Academic Achievement

Educational expectation is often confused with educational aspirations. However, educational expectations refer to what one realistically hopes to achieve, while aspirations reflect what one wishes to achieve (Reynolds & Pemberton, 2001; Fox & Faver, 1981). Building on this distinction, Khattab (2015) studied the relationship between aspirations, expectations, and achievement among young people in England. His study revealed that even without high expectations, having high

aspirations improved achievement compared to students with both low aspirations and low expectations. This implies that when expectations are coupled with aspirations, they can significantly influence students' achievement. Furthermore, Khattab (2015) showed that a perfect alignment of high aspirations, high expectations, and high achievement strongly predicted future educational behavior. These findings demonstrate that expectation plays a role in influencing students' behavior, including academic achievement, when mediated by aspiration. Overall, the author concluded that students with either high aspirations or high expectations have higher school achievement than those with both low aspirations and low expectations.

Yoon et al. (2015) studied the effects of 'hope' on student engagement, academic performance, and vocational identity. In their research, hope appeared to have a meaning similar to aspirations. They reported that various studies have found hope to be associated with greater academic achievement. Furthermore, they noted that several studies indicate hope predicts student grade point averages (GPAs) beyond the effects of previous academic achievement and related personal characteristics such as intelligence. Building on these empirical findings, they hypothesized that a higher sense of hopefulness in students leads to greater student engagement, which, in turn, results in higher GPA.

This study centers on how students' expectations influence their academic achievement. Unlike Rosenthal and Jacobson's (1968) Pygmalion study, which attributes students' intellectual development mainly to teachers' expectations and actions, this research prioritizes students' perspectives. While the Pygmalion framework highlights how teacher expectations and treatment shape achievement regardless of students' true abilities (Cotton, 1989), some findings suggest a reverse effect. For example, the Canada Millennium Scholarship Foundation (December 2005) observed that what students achieve might instead shape their expectations and motivation for further education.

Although previous studies have consistently shown that educational expectations are associated with positive academic outcomes, the mechanisms through which expectations influence academic achievement remain unclear. Some studies suggest that educational expectations have a direct effect on academic achievement (e.g., Khattab, 2015; Zhang, 2014), whereas others argue that their influence operates through motivational and learning behaviors such as classroom

engagement (e.g., Yoon et al., 2015). In addition, most previous studies (e.g., Kao & Tienda, 1998; Khattab, 2015), have defined educational expectations in terms of students' future educational attainment or aspirations. In contrast, the present study conceptualizes expectations from education as students' beliefs about the personal, social, and economic benefits they expect to gain from education. This broader definition reflects the social and cultural values attached to education in the Ethiopian context.

Gender Differences in Academic Achievement

Gender is a personal factor influencing motivation and self-regulated learning in education. In traditional societies, certain behaviors and roles are seen as suitable for boys or girls. As a result, students' actions in educational settings are shaped by these stereotypes (Ogula et al., 2021). A study in Kenyan public secondary schools by Ogula et al. (2021) showed males generally outperformed females in three of four years studied. Similarly, a study by Wangu (2014) in another Kenyan county, using a random sample of various school types, found significant gender differences in overall performance, with more boys passing assessments than girls.

On the contrary, a meta-analysis by Jackman and Morrain-Webb (2019) explored gender differences in achievement from the perspective of factors that cause this disparity. The study concluded that girls always have superior performance to boys in school at all levels. Similarly, one empirical study in Nepal by Parajuli and Thapa (2017) aimed to observe gender differences in the academic performance of public and private school students. The study revealed that female students significantly outperformed their male counterparts. In contrast, one study in Nigeria on college students revealed no significant gender differences in achievement (Goni, Yagana, Ali, & Bularafa, 2015).

Overall, previous studies have reported mixed findings regarding gender differences in academic achievement. Some studies found that male students perform better, whereas others reported better performance among females or found no statistically significant gender differences. These differences suggest that the relationship between gender and academic achievement may depend on factors such as cultural expectations, educational opportunities, assessment methods, and school environments. Therefore, further studies in different educational contexts, including Ethiopia, are needed to better understand these gender differences.

METHODS

This study used a quantitative, cross-sectional survey. This approach was chosen because it allows for the measurement of variables and testing of their relationships within a specific population at a single point in time. As a result, it effectively captures existing attitudes and practices, making it appropriate for quantitatively understanding the relevant issues.

Study Setting and Period

The study was conducted in the newly established South Ethiopia Region, one of Ethiopia's 12 regional states. The region consists of 12 administrative zones. The Gamo and Konso zones were selected for this study. Both are in the southwestern part of Ethiopia. Gamo zone, which hosts Arba Minch University, is 502 kilometers from the capital. Konso Zone is about 590 kilometers southwest of Addis Ababa. The study was conducted from Sept. 8, 2024, to Sept. 30, 2025.

Participants

All government-owned high school students in grades 11 and 12 in both Konso and Gamo zones constituted the target population for this study. Seventy-four government secondary schools were located across 18 administrative districts in the Gamo Zone. According to Zone Education Office data, 16,581 students were enrolled in grades 11–12 during the study period: 8,670 males and 7,911 females. In the Konso Zone, 10 government secondary schools spanned 4 administrative districts, enrolling a total of 4,390 students (2,490 males and 1,900 females). All private secondary schools were excluded, as researchers considered their distinct administrative and academic environments likely to influence study outcomes.

Sample and Sampling Techniques

The researchers used a multi-stage cluster sampling technique. Singh (2006, p. 89) says this method is “more comprehensive and representative of the population.” In this approach, researchers select primary units that are inclusive groups. Within these, they choose secondary units, which are sub-groups belonging to only one primary group. This process continues until the final sampling unit is selected.

In the first stage, administrative districts in both zones were randomly selected as primary sampling units. Schools in these districts were then randomly chosen as secondary sampling units. Next, sections from grades 11-12 within these schools were randomly picked, followed by the random

selection of individual students from those sections. Six districts from the Gamo Zone and two from the Konso Zone made up the primary sample population. From each district, one secondary school was included, resulting in eight schools and 16 sections (two per school). The sample size was determined using Cochran's (1963) formula for large populations. Accordingly, a total sample of 384 participants was selected using proportional allocation across the sections based on their student population. Of these, 353 participants returned complete questionnaires and were included in the final data analysis, while 31 questionnaires were excluded because they were incomplete.

Instruments

The Revised Sense of Belonging Scale

The Revised Sense of Belonging Scale (Hoffman et al., 2002-2003) was used to measure students' sense of school belonging. It is a 26-item five-point Likert scale with points ranging from 1= "Completely untrue" to 5= "Completely true". Sample items include, "*Other students are helpful in reminding me when assignments are due or when tests are approaching*", and "*I feel comfortable asking a teacher for help with a personal problem*". The original scale reported strong internal consistency, ranging from $\alpha = .81$ (perceived isolation) to $\alpha = .90$ (perceived faculty support). The instrument showed good internal consistency ($\alpha .76$).

Student Engagement in Schools Questionnaire (SESQ)

Students' engagement in school was measured by the SESQ (Hart et al., 2011). This instrument covers three dimensions: affective, behavioral, and cognitive components. It also considers facilitators, both personal and contextual, that influence student engagement. In this study, only behavioral and cognitive indicators were used. The affective component was omitted because it overlaps with the sense of belongingness. For this research, the behavioral and cognitive dimension subscales of the questionnaire were adapted. The result was a 21-item Likert scale, ranging from 1 = "Never" to 5 = "Always." Sample items are: "I try hard to do well in school" and "When I study, I try to understand the material better by relating it to things I already know." The questionnaire showed strong internal consistency ($\alpha .85$) for the total scale in this study. The original study reported internal consistency of $\alpha = .85$ for behavioral engagement and $\alpha = .93$ for cognitive engagement. A study in Kenya by Bichii et al. (2025) reported internal consistency of $\alpha = .77$ for behavioral engagement, $\alpha = .67$ for cognitive engagement, and $\alpha = .78$ for the total scale.

Students' Expectations about Education

A researcher-developed questionnaire assessed students' expectations from education. Experts in education and educational psychology identified key factors for the instrument. The literature was reviewed, including Hassel and Ridout (2018), whose questionnaire on first-year students' and lecturers' expectations informed the instrument's design. This tool grouped students' expectations into four main clusters: ambition and drive (*e.g., coming to university to obtain a degree for future employment*), lack of opportunities (*e.g., attending university as a preferable option to unemployment*), social factors (*e.g., attending because friends are going*), and perceived status and expectations (*e.g., attending due to parental expectations*). The original study did not report an internal consistency measure for this instrument. In the present study, students' expectations from education were measured using three main factors: economic, social, and personal. A researcher-developed, 12-item questionnaire was used, employing a five-point Likert-type scale (1 = "Strongly disagree" to 5 = "Strongly agree"). Example items include: "*Education helps me get employed,*" "*Education makes my parents feel proud of me,*" and "*Education enables me to understand and deal with problems in life better.*" The questionnaire was pilot-tested and showed strong internal consistency ($\alpha = .83$). Although the researcher-developed instrument demonstrated strong internal consistency, additional psychometric evaluation, including exploratory and confirmatory factor analyses, is recommended before wider application.

Finally, academic achievement was measured by obtaining students' nearest-semester average from school records.

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Translations

To ensure data quality, the questionnaires were translated from English into the local languages (Gamo and Konso languages) and then back to English by experts. Moreover, a pilot study was conducted with a sample of 35 students in Sodo town, just 120 km north of Arba Minch, to assess the content and reliability of the tools, and minor changes were made to the items in the scales before formal data collection began.

Data Collection Procedure

The formal data-gathering process began with official letters from the Dean seeking school directors' permission. Researchers delivered these letters to selected schools. Sixteen home room teachers and six supervisors, trained for one day, composed the data collection team. During school hours, they administered questionnaires. To ensure accurate semester averages, data collectors used student record books to guide participants in providing correct information.

Data Analysis

The data were coded and analyzed quantitatively using both descriptive and inferential statistics. First, participants' demographic information was analyzed with descriptive statistics (frequencies and percentages). Pearson product-moment correlation coefficients were then used to assess the magnitude and direction of relationships between independent and dependent variables. Next, multiple regression analyses explored the overall and individual variance explained by the criterion variables in this study. Finally, an independent-samples t-test was used to determine whether gender differences existed in students' mean achievement and classroom engagement scores. All analyses were conducted using SPSS version 25.

Ethical Consideration

The investigators first obtained ethical clearance from the Institutional Ethics Review Committee (IERC) of the School of Pedagogical and Behavioral Sciences at Arba Minch University (approval number SPBS/2460/2024). Next, the school dean sent official letters to the relevant schools, and

the school directors provided written permission to conduct the research. Participants then received a detailed briefing on the study's purpose and importance. Before formal data collection, each participant received a written informed consent form and signed it to indicate agreement. The form explained that participation was voluntary and unpaid, outlined the estimated time required to complete the questionnaires, and emphasized the right to withdraw at any time without giving a reason. Additionally, participants were assured that their information would remain confidential and anonymous and that the study would not cause them harm.

RESULTS

This study explored the extent to which students' sense of school belonging and their expectations from education in predicting academic achievement and classroom engagement. Specifically, the study explored the relationships among students' sense of school belonging, classroom engagement, and academic achievement. Similarly, it examined the association among students' expectations of education, classroom engagement, and academic achievement. The findings were presented accordingly. The demographic characteristics of the study participants are presented in Table 1 below.

Table 1

Demographic Characteristics of Participants

Variable characteristics	<i>n</i>	%
Gender		
Female	168	47.6
Male	185	52.4
Total sample	353	100
Grade level		
11 th	169	49.9
12 th	184	52.1
Total sample	353	100
Zone		
Gamo	210	59.49
Konso	143	40.51
Total sample	353	100

As depicted in Table 1, the number of males was slightly higher than the number of females. A slightly larger number of participants were from grade 12, and a large number were from the Gamo zone. Despite apparent differences, the number of participants from each category was proportional.

Relationship between the Dependent and Independent Variables of the Study

The first question of the study examined whether there exists a statistically significant relationship between the predictor variables (sense of school belongingness (SSB), and expectation from education) and the outcome variables (classroom engagement and academic achievement) respectively.

Table 2

Descriptive Statistics and Correlations between the Study Variables

Variables	M	SD	1	2	3	4
1. Semester average	73.1	10.35	—			
2. Sense of school belongingness	91.7	13.26	.127*	—		
3. Expectation from school	50.8	7.82	.266**	.308**	—	
4. Classroom engagement	78.4	12.24	.199**	.479**	.426**	—

* $p < .05$, ** $p < .01$: (two-tailed)

Table 2 shows that all independent variables assessed in this study were statistically significantly associated with the dependent variables. The strengths of these relationships varied from weak to moderate. Specifically, both predictors—SSB and educational expectations—demonstrated moderate correlations with classroom engagement ($r = .479$, $p < .01$; $r = .426$, $p < .01$, respectively). In contrast, their correlations with academic achievement were weaker ($r = .127$, $p < .05$; $r = .266$, $p < .01$, respectively). These findings indicate that SSSB and educational expectations are stronger predictors of classroom engagement than of academic achievement.

Multiple Regression Results for SSSB and Expectations from Education in Predicting Classroom Engagement and Academic Achievement

The second research question examined the joint and independent contributions of students' sense of school belongingness (SSB) and expectations from education to the prediction of academic achievement and classroom engagement. Two multiple linear regression analyses were conducted.

Table 3*Multiple Regression Outputs of the Predictors in Explaining the Outcome Variables*

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% <i>CI</i>
Constant	65.858	4.366		15.086	.000	[57.3,74.4]
Sense of school belongingness	.168	.043	.210	3.959	.000	[.085, .252]
Expectation from school	.435	.070	.329	6.215	.000	[.298, .573]
Note: $R^2 = .119$, $F(2, 350) = 23.47$, $p < .001$. $N = 353$. Dependent Variable: Academic achievement						
Constant	21.546	4.583		4.748	.000	[12.6,30.5]
Sense of school belongingness	.362	.048	.381	8.193	.000	[.275,.449]
Expectation from school	.487	.073	.311	6.696	.000	[.344,.631]
Note: $R^2 = .315$, $F(2, 350) = 80.12$, $p < .001$. $N = 353$. Dependent Variable: Classroom engagement						

The first multiple regression analysis examined whether students' sense of school belongingness (SSB) and expectations from education significantly predicted academic achievement. The overall regression model was statistically significant, $F(2, 350) = 23.47$, $p < .001$, explaining 11.9% of the variance in academic achievement ($R^2 = .119$). According to Cohen (1988), this represents a small-to-moderate effect size, suggesting that although the two predictors significantly explained academic achievement, much of the variation in students' achievement was influenced by other factors not included in this study. Both variables made significant independent contributions to the prediction of academic achievement. Educational expectations emerged as the stronger predictor ($\beta = .329$, $t = 6.22$, $p < .001$), followed by students' sense of school belongingness ($\beta = .210$, $t = 3.96$, $p < .001$). This indicates that students who had more positive expectations from education and a stronger sense of belonging at school tended to achieve better academically.

The second multiple regression analysis examined whether students' sense of school belongingness and expectations from education significantly predicted classroom engagement. The regression model was also statistically significant, $F(2, 350) = 80.12$, $p < .001$, explaining 31.5% of the variance in classroom engagement ($R^2 = .315$). Based on Cohen's (1988) guidelines, this represents a moderate effect size, indicating that the two predictors together explained a meaningful proportion of the differences in students' classroom engagement. Both variables made significant

independent contributions to the model. Students' sense of school belongingness was the stronger predictor ($\beta = .381, t = 8.19, p < .001$), followed by educational expectations ($\beta = .311, t = 6.70, p < .001$). These findings suggest that students who feel a stronger sense of belonging at school and have more positive expectations from education are more likely to participate actively and engage in classroom learning.

Gender Differences in Classroom Engagement and Academic Performance

Independent-samples *t*-tests were conducted to examine gender differences in academic achievement and classroom engagement.

Table 4

Gender differences in classroom engagement and academic performance

Variables	Gender				t (351)	p	CI	
	Male		Female				Low.	Upp.
	M	SD	M	SD				
Semester average	74.85	10.25	71.22	10.16	3.33	.001**	1.49	5.76
Classroom engagement.	78.10	12.89	78.65	11.48	-.423	.672	-3.12	2.01

N.B. Low= lower limit; Upp. = upper limit; * $p < .05$; ** $p < .01$

The results showed a statistically significant gender difference in the mean academic achievement scores, with male students ($M = 74.85, SD = 10.245$) scoring significantly higher than female students ($M = 71.22, SD = 10.16$), $t(351) = 3.33, p = .001$ (two-tailed). This indicates that male students achieve higher academic scores than female students. In contrast, there was no statistically significant gender difference in classroom engagement between male students ($M = 78.10, SD = 12.89$) and female students ($M = 78.65, SD = 11.48$), $t(351) = -0.42, p = .672$. This suggests that males and females participate equally in classroom routines.

DISCUSSIONS

This study examined the relationships between students' sense of school belongingness (SSB), expectations from education, classroom engagement, and academic achievement among high school students in the Gamo and Konso Zones of Southern Ethiopia. Specifically, the study investigated whether SSB and educational expectations were associated with classroom

engagement and academic achievement and examined potential gender differences in these outcomes.

The findings showed that students' sense of school belongingness and expectations from education were significantly associated with both classroom engagement and academic achievement. However, the relationships with academic achievement were relatively weak, whereas those with classroom engagement were moderate. Similarly, the regression analyses showed that SSB and educational expectations explained 11.9% of the variance in academic achievement in combination but 31.5% of the variance in classroom engagement. These findings suggest that the two psychological variables are more strongly related to classroom engagement than to academic achievement. The relatively low proportion of explained variance for academic achievement also suggests that many other factors, such as psychological, family, school, and socioeconomic factors, influence students' academic performance. Therefore, SSB and educational expectations should be viewed as important, but not exclusive factors correlated with educational success.

The present findings are generally consistent with the meta-analysis by Korpershoek et al. (2019), which reported a small but significant association between students' sense of school belongingness and academic achievement ($r = .18$). Besides, the finding is similarly to that of Wilson (2018), Goodenow (1993), and Ordaz and Mosqueda (2021) that revealed a positive relationship between school belonging and academic achievement. The present finding is consistent with previous studies that reported a positive relationship between students' sense of school belongingness and academic achievement (e.g., Goodenow, 1993; Ordaz & Mosqueda, 2021; Wilson, 2018). However, the strength of this relationship differs across studies, possibly due to variations in students' age, educational levels, cultural backgrounds, and school contexts.

Similarly, Wilson et al. (2015) reported a significant association between students' sense of belongingness and classroom engagement, which is consistent with the present findings. The current study also found that educational expectations were significantly associated with both classroom engagement and academic achievement. Yoon et al. (2015) suggested that classroom engagement may explain how educational expectations influence academic achievement. However, because mediation analysis was not conducted in the present study, this explanation could not be tested. Therefore, it should be considered a possible explanation that future studies

can examine using longitudinal designs or structural equation modelling. The present study also found that educational expectations showed a stronger association with academic achievement than with classroom engagement, whereas previous studies have reported different findings. For example, Khattab (2015) found that educational expectations contribute to academic achievement, particularly when students also have high aspirations. In contrast, Yoon et al. (2015) suggested that educational expectations are more closely related to classroom engagement than to academic achievement. These differences should be interpreted carefully because the studies differed in their research designs, participants, and the way educational expectations were defined and measured. Most previous studies defined educational expectations in terms of students' future educational attainment or aspirations. In contrast, the present study measured students' perceived personal, social, and economic expectations from education. This difference in how the construct was conceptualized may partly explain the differences in the findings.

Regarding gender, the current study showed that males performed better than females. This result is consistent with previous studies conducted in Kenyan high schools by Ogula et al. (2021) and Wangu (2014). Their study measured academic achievement in almost the same way as the present study did. This can be explained by the fact that gender affects individuals' motivation and self-regulation in education. This is because of the expectations that societies traditionally attach to each sex regarding education and achievement (Ogula et al., 2021). Gender also leads to self-stereotyping beliefs, which makes boys and girls try to live up to these artificial norms in educational settings (OECD, 2013). However, unlike the present study, Goni et al. (2015) found no significant gender difference in academic achievement. The study involved college students in Nigeria and used a different method to define academic achievement- an aptitude test. Thus, the apparent deviation from the findings of that study is most likely due to differences in the methods used and the targeted population. On the contrary, some empirical and meta-analytic studies conducted outside Africa have indicated that girls generally perform better academically than boys in school (e.g., Jackman & Morrain-Webb, 2019; Parajuli & Thapa, 2017). This might be true because of cultural and social differences between Africans and those countries included, or because of differences in the conceptualization and measurement of academic achievement.

Finally, no statistically significant gender difference was observed in classroom engagement. This finding differs from those reported by Amir et al. (2014), Lietaert et al. (2015), and Kovalik (2008), who found higher classroom engagement among girls. Kovalik (2008) argued that girls tend to seek teacher approval more strongly than boys, whereas boys are more likely to engage. Kovalik (2008) argued that girls tend to be more engaged than boys because they want to please their teachers and be liked by them, regardless of the nature of the task. On the contrary, boys only show interest when they perceive learning activities as personally meaningful and are less interested in impressing their teachers. Possible explanations for the observed variations across the studies include differences in cultural context, educational practices, and measurement approaches. Consequently, additional research conducted in different educational settings is required before drawing broad conclusions regarding gender differences in classroom engagement.

Generally, the findings of this study support the belongingness hypothesis and expectancy-value theory by showing that students' sense of school belongingness and expectations from education are more strongly related to classroom engagement than to academic achievement. This in turn shows that these psychological factors may have a more direct influence on students' classroom engagement, while academic achievement is likely affected by many other factors beyond those explored in this study.

Conclusions and Implications for Practice

The present study provides valuable empirical evidence on the relationships between students' sense of school belongingness, educational expectations, classroom engagement, and academic achievement among secondary school students in Southern Ethiopia. The findings indicate that students' sense of school belongingness and educational expectations are significantly associated with both classroom engagement and academic achievement. However, these psychological variables explain a moderate proportion of the variance in classroom engagement but only a modest proportion of the variance in academic achievement, suggesting that academic achievement is influenced by a broader range of factors beyond those examined in the present study. From the two predictors, students' sense of school belongingness demonstrated a stronger association with classroom engagement, whereas educational expectations showed a relatively stronger association with academic achievement. The study also found that male students achieved

significantly higher academic scores than female students, while no statistically significant gender difference was observed in classroom engagement.

The findings have several practical implications. Teachers should create supportive and inclusive classroom environments that help students develop a stronger sense of belonging through positive teacher–student relationships, collaborative learning, and opportunities to participate actively in classroom activities. Schools should also strengthen guidance and counselling services to help students develop positive and realistic expectations about the personal, social, and economic benefits of education.

School leaders should make students' sense of belonging part of school improvement programs by regularly assessing students' school experiences and introducing activities that strengthen school connectedness. Likewise, education policymakers and other concerned bodies should consider students' psychological well-being and sense of school belonging when planning strategies to improve the quality of education, in addition to focusing on traditional academic performance indicators.

Generally, the findings suggest that strengthening students' psychological experiences within school may enhance classroom engagement and also improve academic achievement.

Limitations and Future Directions

This study drew participants from a geographically broad area and diverse socio-cultural backgrounds in the Konso and Gamo Zones of Southern Ethiopia, enhancing the contextual relevance of the findings. Yet, several limitations should be considered when interpreting the results.

First, the study employed a cross-sectional survey design, which limits the ability to draw causal inferences. Although significant associations were observed between students' sense of school belongingness, educational expectations, classroom engagement, and academic achievement, the causal direction of these relationships cannot be established. Hence, other research approaches that allow for establishing causality should be used in the future. Second, although 384 students were initially sampled, only 353 questionnaires were completed adequately for analysis, resulting in a response rate of 91.9%. While this response rate is satisfactory, the relatively lengthy questionnaire

may have contributed to participant fatigue and could have affected the quality of some responses. Third, the study relied primarily on self-report questionnaires to measure students' sense of school belongingness, educational expectations, and classroom engagement. Consequently, responses may have been influenced by social desirability or recall bias. Future studies could strengthen the evidence by combining self-report measures with classroom observations, teacher ratings, interviews, or focus group discussions. Fourth, although the researcher-developed educational expectations scale demonstrated satisfactory internal consistency, additional psychometric evaluation, including exploratory and confirmatory factor analyses, is recommended to further establish its construct validity for wider use. Fifth, the regression models explained a modest proportion of the variance in academic achievement and a moderate proportion of the variance in classroom engagement. Finally, these findings indicate that important factors unaccounted for may also significantly contribute to students' educational outcomes. Hence, future research should explore how they integrate to determine students' academic outcomes.

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