

# FACTORS INFLUENCING SENIOR HIGH SCHOOL STUDENTS' DEVELOPMENT OF ENGLISH LANGUAGE SKILLS IN CAGAYAN DE ORO CITY



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## Factors Influencing Senior High School Students' Development of English Language Skills in Cagayan De Oro City

Lito B. Galinada, Grace S. Pimentel

For affiliations and correspondence, see the last page.

### Abstract

Many Senior High School students struggle to develop strong English language skills, which are essential for academic achievement and critical thinking. This study investigates the factors influencing English language learning and critical thinking among Senior High School students in Cagayan de Oro City, focusing on how demographic characteristics (gender, age, grade level, and socioeconomic status) and learning-related variables (motivation, parental involvement, learning environment, and teaching strategies) impact student outcomes. This quantitative study employed surveys and multiple regression analysis to determine key predictors of students' critical thinking skills. The results revealed a statistically significant model,  $F(8, 428) = 0.323$ ,  $p < .05$ , with an  $R^2$  value of 0.336, indicating that 33.6% of the variance in students' critical thinking skills was explained by the examined factors. Significant predictors included gender ( $t = -2.30$ ,  $p < .05$ ), socioeconomic status ( $t = 2.13$ ,  $p < .05$ ), motivation ( $t = 7.29$ ,  $p < .05$ ), teaching strategies ( $t = 3.38$ ,  $p < .05$ ), and learning environment ( $t = 4.07$ ,  $p < .05$ ), while age, grade level, and parental involvement were not statistically significant. Descriptive statistics supported these findings, with motivation rated highest ( $\bar{x} = 4.19$ ,  $SD = 0.787$ ), followed by teaching strategies ( $\bar{x} = 3.90$ ,  $SD = 0.835$ ) and learning environment ( $\bar{x} = 3.56$ ,  $SD = 0.90$ ); parental involvement scored lowest ( $\bar{x} = 3.03$ ,  $SD = 1.04$ ). The overall mean score ( $\bar{x} = 3.67$ ,  $SD = 0.891$ ) suggests generally strong support for English language development. Despite socioeconomic challenges, students demonstrated commendable English proficiency and critical thinking skills. The null hypothesis was rejected. The study concludes that learner motivation, effective instructional strategies, and a supportive learning environment are critical to enhancing English language learning. It recommends promoting interactive teaching, integrating educational technology, and strengthening home-school collaboration to support inclusive and effective language education.

**Keywords:** *language development, motivation, English language skills*

### Introduction

English language proficiency is crucial for students' academic achievement and future career success, particularly in today's globalized world. The four essential language skills—reading, writing, speaking, and listening—serve as fundamental tools for students in all academic disciplines. In the Philippines, English is a second language and a primary medium of instruction in schools, in line with Executive Order No. 210 and DepEd Order No. 36, s. 2006. However, despite its central role in education and national development (1987 Philippine Constitution), many students, especially those in public schools, still struggle with English proficiency (Romero et al., 2023).

Recent reports show a worrying decline in the country's English proficiency, as evidenced by the drop in the English Proficiency Index from 14th place in 2018 to 27th in 2020 and the country's low rankings in the Program for International Student Assessment (PISA) (Santos, 2022; Chi, 2024). Moreso, according to the Philippine Statistics Authority, a total of 18.9 million Filipino students who completed junior and senior high school in 2024 are unable to read and comprehend a simple story (Ramos, 2025). This decline is concerning given the vital role English plays in both academic and professional settings. While numerous studies have explored language proficiency in elementary and university students, there is a lack of research focusing specifically on Senior High School students, particularly in the context of Cagayan de Oro City.

In particular, insufficient attention has been given to understanding how factors like socioeconomic status, family involvement, and teaching strategies affect the development of English language skills among Senior High School students, especially those in the Science, Technology, Engineering, and Mathematics (STEM) strand. The existing literature also lacks a comprehensive study on the relationship between intrinsic motivation, socioeconomic background, and academic success in language learning at this critical stage of education (Santos, 2022; Alisoy, 2023).

The gap in research on this age group is particularly striking, as Senior High School years are essential for preparing students for higher education or entry into the workforce, where English proficiency is increasingly required. Additionally, there is limited exploration of how effective teaching strategies and a positive learning environment can enhance students' language skills. This study, therefore, aims to fill these gaps by investigating the internal and external factors influencing the English language skills of Senior High School STEM students in Cagayan de Oro. The findings will contribute to enhancing teaching strategies and improving students' language proficiency, which is vital for their academic success and future career prospects.

## Research Questions

This research aims to investigate the various factors that influence to the development of English language skills among Senior High School students. Specifically, it will answer the following questions:

1. What is the demographic profile of the respondents in terms of:
  - 1.1 gender;
  - 1.2 age;
  - 1.4 grade level; and
  - 1.3 socio-economic status?
2. What is the respondents' level of English Language learning in terms:
  - 2.1 motivation;
  - 2.2 parental involvement;
  - 2.3 learning environment; and
  - 2.4 teaching strategy?
3. What is the respondents' level of English Language Skills in terms of:
  - 3.1 academic performance; and
  - 3.2 critical thinking?
4. Do demographic profile and English language learning significantly influence students' English Language Skills?

## Literature Review

The collective body of literature, encompassing both local and international studies, underscores the multifaceted nature of English language development among senior high school students. Four key domains-motivation, parental involvement, learning environment, and teaching strategies-emerge as significant and interrelated determinants of language acquisition and academic success.

Motivation, whether intrinsic or extrinsic, is consistently identified as a critical factor influencing student engagement and proficiency. Local studies emphasize that students motivated by career aspirations, self-fulfillment, and personal goals demonstrate higher levels of language competence (Bucay & Rosil, 2024). Intrinsic motivation, particularly the desire for personal growth and satisfaction, is shown to enhance reading, writing, and speaking skills, while extrinsic motivation, such as the pursuit of academic rewards or professional advancement, also plays a substantial role in learner persistence (Harrison & Rodriguez, 2023). Across cultural contexts, motivation remains a stable predictor of success regardless of proficiency level, highlighting its universality in second language acquisition (Nevisi & Farhani, 2022).

In parallel, parental involvement (PI) is found to be a significant contributor to students' academic and linguistic performance. Filipino studies highlight the importance of active home engagement, emotional support, and collaborative parent-teacher communication in enhancing learners' English proficiency (Pinatil et al., 2022). International research further elaborates on these findings, demonstrating that effective parental practices, including the use of digital tools and scaffolded support based on Vygotsky's Zone of Proximal Development, contribute to vocabulary growth, motivation, and self-efficacy in EFL learners (Choi et al., 2023). Despite socioeconomic barriers and limited English proficiency among parents, both local and global perspectives advocate for inclusive policies that strengthen the parent-school partnership (Brown et al., 2020).

The learning environment also plays a pivotal role in shaping the quality of language learning experiences. Philippine-based studies show that gamified and inclusive environments foster increased retention, participation, and language competency (Cayubit, 2022). International literature further broadens this concept by integrating perspectives on virtual, flipped, and blended learning settings, all of which enhance learner autonomy, flexibility, and engagement (Yough, 2024). Moreover, studies emphasize that physical comfort, emotional safety, and culturally responsive classroom climates are vital to facilitating effective language learning (Qureshi et al., 2021).

Finally, teaching strategies are identified as instrumental in bridging learners' skills and educational outcomes. In the Philippine context, interactive, student-centered methods and the promotion of learner autonomy have been shown to enhance English proficiency (Soliman & Gorospe, 2024). Globally, the use of English for Specific Purposes (ESP), active learning models, and the integration of higher-order thinking skills (HOTS) have been linked to improved language outcomes (Ghafar, 2022). These approaches suggest that successful language instruction requires culturally adaptive and cognitively stimulating pedagogies that account for students' linguistic levels, learning goals, and contextual backgrounds.

In synthesis, the literature provides a comprehensive understanding of the intricate dynamics that influence English language development in senior high school students. The interconnected roles of motivation, parental involvement, learning environment, and teaching strategies suggest that no single factor acts in isolation. Rather, a holistic and adaptive approach-one that integrates psychological, social, cultural, and instructional dimensions essential to fostering sustainable language acquisition. Moving forward, educational stakeholders must prioritize teacher training, parental engagement initiatives, and inclusive policies that promote enriched

learning environments and personalized instructional strategies, thereby enhancing English language learning outcomes for diverse student populations.

## Methodology

### Research Design

This study used a quantitative method to meet its goals. It followed a descriptive-correlational design to identify key factors like demographics and learning levels, and to explore how these might affect students' critical thinking and academic performance. It also looked at whether motivation, parental involvement, learning environment, and teaching strategies influence these outcomes. The main goal was to provide a comprehensive account of these variables and assess their influence on students' academic outcomes and cognitive abilities, without assuming causality (Devi, 2022).

### Respondents

The respondents of this study were 439 Grade 11 and 12 Senior High School STEM (Science, Technology, Engineering, and Mathematics) students from public schools in Cagayan de Oro City, representing the four cardinal districts: East, West, South, and North, with one school from each district. The schools were selected to ensure a diverse sample, reflecting various socio-economic and educational backgrounds, and providing a broad perspective on the factors affecting English language development in the city.

### Instrument

The researcher used a custom-made survey to gather information about students' critical thinking and the factors affecting their English language development, such as motivation, parental involvement, learning environment, and teaching strategies. Five experts validated the questionnaire, with a strong reliability-Cronbach's Alpha of .956. Students' academic performance was measured using their General Weighted Average (GWA) from the first semester of the 2024–2025 school year.

### Procedure

The researcher used Purposive Sampling. It purposefully selected schools with the highest number of STEM strand enrollees in each of the cardinal districts. To determine an appropriate sample size, Slovin's formula was used as a reference: Where: "n" is the sample size, "N" is the total population size, and "e" is the margin of error (usually set at 0.05 or 5%). The total sample size calculated was 439 respondents. By using this approach, the researcher ensured that the sample was representative, reliable, and valid, which enhanced the quality of the study on the factors influencing English language skills development among Senior High School STEM students.

Data collection began with approval from the Department of Education, Division of Cagayan de Oro, followed by permission from school principals. Consent letters were then given to students and parents. The survey was conducted with 439 Grade 11 and 12 STEM students from four public schools in Cagayan de Oro, gathering quantitative data on factors affecting English language development.

### Data Analysis

In this study, data were analyzed using various statistical methods. Research Question 1 used descriptive statistics to summarize the demographic profile of the respondents (gender, age, grade level, socio-economic status) through frequencies and percentages. Research Question 2 also utilized descriptive statistics (mean and standard deviation) to measure the level of English language learning in terms of motivation, parental involvement, learning environment, and teaching strategies, based on the survey responses. Similarly, Research Question 3 applied descriptive statistics to analyze students' academic performance using their General Weighted Average (GWA) and critical thinking skills, based on the survey questionnaire. For Research Question 4, regression analysis was used to examine the relationship between English language learning factors and students' English language skills. This helped identify which factors significantly predict academic performance and critical thinking skills.

### Ethical Considerations

The ethical considerations for this study were addressed by first obtaining assent from the minor participants, ensuring they fully understood the research purpose, procedures, risks, and benefits in an age-appropriate manner. Confidentiality was strictly maintained by anonymizing all data, and participants were assured that their personal information would remain private and secure. Participation was voluntary, and students had the right to withdraw from the study at any time without facing any consequences. Approval was obtained from the Department of Education Supervisor, the School Principal, and the parents; thus, the study adhered to the ethical standards set by the Department of Education (DepEd) and the research institution to protect the safety and well-being of all respondents.

## Results and Discussion

Table 1. Results of frequency and Percentage for the Demographic Profile of the Respondents in terms of Gender, Age, Grade Level, and Socio-economic Status

Demographic Profile		<i>f</i>	%
Gender	Male	191	43.5
	Female	218	49.7
	Prefer not to mention	30	6.8
	Total	439	100
Age	14 to 15	5	1.1
	16 to 17	290	66.1
	18 to 19	135	30.8
	20 to 21	9	2.1
	Total	439	100.0
Grade Level	11	265	60.4
	12	174	39.6
	Total	439	100.0
Socio-Economic Status	Poor	187	42.6
	Low-income but not poor	136	31.0
	Lower middle	74	16.9
	Middle	28	6.4
	Upper middle	9	2.1
	Upper middle but not rich	5	1.1
	Total	439	100.0

The table shows that most respondents are female, with 27 more females (6.2%) than males, reflecting a higher enrollment of females in the STEM strand. Most are in Grade 11, with 91 more students (20.8%) than Grade 12, indicating a drop in enrollment as students advance. This aligns with findings on fluctuating enrollments and dropout rates (Cervantes, 2024; Romero, 2021).

Most respondents (66.1%) are 16 to 17 years old, suggesting they are on track with the K-12 program. In terms of socio-economic status, 42.6% are from poor families, and 31.0% are from low-income backgrounds, indicating financial challenges that may impact access to educational resources and language development, as noted in Naz's (2024) study.

Table 2. Summary of Results of Mean and Standard Deviation for the Students' Level of English Language Learning

Variables	Mean	SD	Interpretation
Motivation	4.19	0.787	High
Parental involvement	3.03	1.04	Moderately High
Learning Environment	3.56	0.90	High
Teaching Strategy	3.90	0.835	High
Over-all Mean	3.67	0.891	High

Table 2 shows the mean and standard deviation for the level of English Language Learning in terms of teaching strategy. The highest mean was for motivation ( $M=4.19$ ,  $SD=.787$ ), followed by teaching strategy ( $M=3.90$ ,  $SD=.835$ ), learning environment ( $M=3.56$ ,  $SD=.90$ ), and parental involvement ( $M=3.03$ ,  $SD=1.04$ ). The overall mean was  $M=3.67$  ( $SD=.891$ ), indicating that respondents generally agreed they have a high level of English language learning in terms of teaching strategy. The high standard deviation ( $SD=.891$ ) suggests that the responses varied widely. These findings support Balicog's (2021) view that motivation plays a key role in language learning, with motivated students showing higher proficiency. Balicog also emphasized the importance of teaching strategies in sustaining student progress. Additionally, Cayubit (2022) highlighted the value of parental involvement and supportive policies in language development. This contradicts Balla et al.'s (2024) claim that teacher factors, student ability, and parental support do not contribute to English language development.

Table 3. Results of Frequency, Percentage, Mean and Standard Deviation for the Students' Level of English Language Skills in terms of Academic Performance

Range	F	%	Mean	SD	Interpretation
75-79	1	.2	90.67	3.18	Outstanding
80-84	17	3.9			
85-89	123	28			
90-100	298	67.8			
Total	439	100.0			

Table 3 shows the frequency, percentage, mean, and standard deviation for students' English language skills in relation to academic performance. Most students (67.8%) scored between 90 and 100, indicating outstanding performance, while 28% scored between 85 and 89, also considered high. Only 0.2% scored between 75 and 79, showing few students underperforming.

The mean score of 90.67 is in the outstanding range, and the low standard deviation of 3.18 suggests consistent performance among students. This indicates that current teaching methods and the learning environment are effective in supporting student success.

These findings show that students' academic performance in English is exceptional, with most scoring high. The low standard deviation supports the idea that the educational approach is meeting student needs. Giangat (2022) supports this, stating that STEM students' academic performance is very satisfactory, and Galang (2022) found a significant relationship between English proficiency and achievement in STEM.

Table 4. Results of Mean and Standard Deviation for the Students' Level of English Language Skills in terms of Critical Thinking

Indicators	Mean	SD	Description	Interpretation
1. I carefully analyze information in English before forming conclusions.	4.08	.748	Agree	High
2. I question assumptions in English discussions and texts rather than accepting them at face value.	3.67	.783	Agree	High
3. I evaluate arguments based on logic and evidence.	4.01	.813	Agree	High
4. I reflect on my own thinking when analyzing English texts or discussions to improve my reasoning skills.	4.05	.728	Agree	High
5. I search for gaps and inconsistencies in English texts, arguments, or discussions.	3.81	.748	Agree	High
6. I evaluate my own assumptions, conclusions, and reasoning for accuracy and consistency.	3.83	.789	Agree	High
7. I consider different perspectives in English discussions before making decisions.	4.00	.779	Agree	High
8. I identify the strengths and weaknesses of different viewpoints in discussions and written arguments in English.	3.87	.786	Agree	High
9. I can differentiate between facts and opinions in English discussions and texts.	3.94	.799	Agree	High
10. I enjoy solving complex problems in English that require critical thinking.	3.70	.829	Agree	High
11. I analyze complex English information and simplify it for better understanding.	3.87	.780	Agree	High
12. I draw inferences from English texts, data, or observations.	3.64	.799	Agree	High
13. I ask critical questions when gathering information and solving problems in English.	3.68	.837	Agree	High
14. I can clearly explain my reasoning in English when making decisions.	3.65	.809	Agree	High
15. I recognize biases in English texts, media, and discussions.	3.80	.833	Agree	High
Over-all Mean	3.84	0.791	Agree	High



Table 4 shows the mean and standard deviation for the level of English language skills in terms of critical thinking. The highest mean was for "I carefully analyze information in English before forming conclusions" (M=4.08, SD=.748), followed by "I reflect on my own thinking when analyzing English texts" (M=4.05, SD=.728) and "I evaluate arguments based on logic and evidence" (M=4.01, SD=.813). The lowest mean was for "I draw inferences from English texts" (M=3.64, SD=.799), followed by "I can clearly explain my reasoning in English" (M=3.65, SD=.809), and "I question assumptions in English discussions" (M=3.67, SD=.783). The overall mean for critical thinking skills is 3.84, categorized as "High," with a standard deviation of 0.791, indicating consistent critical thinking skills across students. Students showed strong analytical abilities, particularly in evaluating arguments and reflecting on their reasoning. However, areas like drawing inferences from texts and enjoying problem-solving may need more development. These findings align with Hasna (2024), who emphasized the importance of incorporating critical thinking in lessons.

Table 5. Results of Multiple Regression Analysis to determine the Variables that significantly influence Students' Critical Thinking

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Interpretation
	B	Std. Error	Beta			
(Constant)	.884	.231		3.82	.000	Significant
Grade level	.059	.048	.055	1.24	.212	Not Significant
Age	.009	.044	.009	.208	.836	Not Significant
Gender	-.079	.034	-.092	-2.30	.022	Significant
SES	.042	.020	.087	2.13	.033	Significant
Motivation	.330	.045	.313	7.29	.000	Significant
Parental Involvement	.038	.030	.054	1.27	.204	Not Significant
Teaching Strategies	.163	.048	.173	3.38	.001	Significant
Learning Environment	.216	.053	.214	4.07	.000	Significant
R=.579		R <sup>2</sup> =.336	F (8, 428) =.323 P= .000			

Table 5 presents the results of a multiple regression that was run to predict students' critical thinking from demographic profile and English Language Learning. This resulted in a significant model,  $F(8, 428) = .323, p < .05, R^2 = .336$ . The individual predictors were examined further and indicated that gender ( $t = 2.30, p < .05$ ), SES ( $t = 2.13, p < .05$ ), Motivation ( $t = 7.29, p < .05$ ), teaching strategies ( $t = 3.38, p < .05$ ), and Learning Environment ( $t = 4.07, p < .05$ ) but, grade level ( $p = .212$ ), Age ( $p = .212$ ), and parental involvement ( $p = .204$ ).

The  $R^2$  value of 0.336 implied that the significant predictors namely gender, SES, Motivation, Teaching Strategies, and Learning Environment only predicted 33.6 % of students' critical thinking and around 66.3 % could be attributed by other factors not included in the study.

The regression equation of this study is  $Y = .884 + .079X_1 + .042X_2 + .330X_3 + .163X_4 + .216X_5$

- Where
- Y= SH students' Critical Thinking
- .884= is the B constant
- X<sub>1</sub>= Gender
- X<sub>2</sub>= SES
- X<sub>3</sub>=Motivation
- X<sub>4</sub>=Teaching Strategies
- X<sub>5</sub>=Learning Environment

The regression equation indicates that at a constant value of 0.884, each predictor variable contributes differently to the critical thinking level of Senior High School (SHS) students. Specifically, for every 1-point increase in gender, students' critical thinking decreases by 0.079 points. For every 1-point increase in socioeconomic status (SES), critical thinking increases by 0.042 points. A 1-point increase in motivation results in a 0.330-point increase in critical thinking, while a 1-point increase in teaching strategies leads to a 0.163-point increase. Lastly, for every 1-point increase in learning environment, students' critical thinking increases by 0.216 points.

Among the predictors, motivation (X<sub>3</sub>) emerged as the strongest positive influence on students' critical thinking (B = 0.330). This



suggests that as students’ motivation increases, so does their ability to think critically. Similarly, both learning environment ( $X_5$ ) and teaching strategies ( $X_4$ ) were found to positively affect critical thinking, with coefficients of 0.216 and 0.163, respectively. These findings underscore the importance of fostering a supportive academic environment and employing effective instructional methods to enhance students’ cognitive development. Socioeconomic status ( $X_2$ ) showed a slight positive impact ( $B = 0.042$ ), indicating that students from higher SES backgrounds may have a marginal advantage in developing critical thinking skills, possibly due to access to more learning resources or support systems. Interestingly, gender ( $X_1$ ) had a negative coefficient ( $B = -0.079$ ). This implies that, depending on the coding used (e.g., Male = 0, Female = 1), female students may score slightly lower in critical thinking compared to their male counterparts. However, this effect is relatively small and would require further analysis-particularly significance testing-to determine if this difference is statistically meaningful.

In conclusion, the regression analysis reveals that motivation, learning environment, and teaching strategies are significant contributors to the development of critical thinking skills among SHS students. While gender and socioeconomic status also play a role, their influence appears less substantial. These findings highlight the critical importance of nurturing internal student drive and providing high-quality educational experiences to foster higher-order thinking skills.

These findings are supported by the claims that Socio-economics contributes significantly in improving students' critical thinking skills and that there is a great influence between socioeconomics on students' critical thinking in second language learning (Forsia, et al, 2024). There is also a positive relationship between students' critical thinking skills and learning motivation with their learning achievement (Nur'azizah, 2021). Moreover, active learning and teaching strategies, integrating technology in the classroom, along with inclusive leadership practices, can significantly improve students’ critical thinking, and overall academic performance. (Bhuttah,2024). It also indicates that an interactive learning environment can be considered as a tool for developing students’ critical thinking skills in the context of limited screen time (Song, 2024)

Table 6: Results of Multiple Regression Analysis to determine the Variables that significantly influence Students’ Academic Performance

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
(Constant)	81.66	1.58		51.6	.000	Significant
Grade level	1.85	.326	.284	5.68	.000	Significant
Age	-.243	.299	-.041	-.812	.417	Not Significant
Gender	.197	.235	.038	.842	.400	Not Significant
SES	.554	.134	.189	4.13	.000	Significant
Motivation	.760	.310	.118	2.45	.015	Significant
Parental Involvement	-.200	.206	-.046	-.970	.333	Not Significant
Teaching Strategies	1.00	.330	.176	3.055	.002	Significant
Learning Environment	-.261	.363	-.042	-.718	.473	Not Significant
R=.398 R <sup>2</sup> =.158 F (8, 428) =10.00 P=.000						

Table 6 presents the results of a multiple regression that was run to predict students’ academic performance from demographic profile and English Language Learning. This resulted in a significant model,  $F(8, 428) = 10.00, p < .05, R^2 = .158$ . The individual predictors were examined further and indicated that grade level ( $t = 5.68, p < .05$ ), SES ( $t = 4.13, p < .05$ ), Motivation ( $t=2.45, p<.05$ ), teaching Strategies ( $t=3.055, P<.05$ ) but, Age ( $p=.417$ ), gender  $p=.842$ , parental involvement ( $p=.333$ ) and learning environment ( $p=.473$ ) were not.

The  $R^2$  value of 0.158 implied that the significant predictors namely age, gender, parental involvement, and learning environment only predicted 15.8 % of students’ academic performance and around 84.2% could be attributed by other factors not included in the study.

Meanwhile, when all other variables are held constant, the best significant predictor of academic performance is grade level (Beta=.284) followed by SES (beta=.189), teaching strategies (beta=.176), and last is motivation (beta=.118)

The regression equation of this study is  $Y = 81.66 + 1.85X_1 + .554X_2 + .760X_3 + 1.00 X_4$

Where  
 $Y =$  SH students’ Academic Performance  
 81.66= is the B constant

$X_1$ = Grade level

$X_2$ = SES

$X_3$ =Motivation

$X_4$ =Teaching Strategies

The regression equation indicated that at the constant value of .884, for every 1-point increase of grade level, the SH students' academic performance increases by 1.85, 1-point increase of SES, the SH students' academic performance increases by .554, 1-point increase of motivation, the SH students' academic performance increases by .760, and 1-point increase of teaching strategies, the SH students' academic performance increases by 1.00. The regression analysis reveals that multiple factors positively influence the academic performance of Senior High School students. The constant value of 81.66 represents the baseline level of academic performance when all predictor variables are held at zero.

Among the predictors, grade level has the largest effect ( $B = 1.85$ ), suggesting that as students' progress to higher grade levels, their academic performance improves significantly. Teaching strategies also contribute substantially ( $B = 1.00$ ), indicating that effective teaching methods can lead to measurable gains in student achievement. Motivation ( $B = 0.760$ ) shows a moderately strong relationship, implying that more motivated students tend to perform better academically. Meanwhile, socioeconomic status ( $B = 0.554$ ) exerts a smaller but still positive influence, reflecting the supportive role that economic and social resources can play in student success.

Overall, the regression model suggests that both personal and instructional factors, particularly grade level, motivation, and teaching strategies, play important roles in shaping the academic outcomes of SHS students. These findings conform to the claim of Zhigang (2023), who claimed that there was a significant positive correlation between academic performance success and learning motivation, which is a significant predictor for the academic success of high school students. This is also true to the socio-economic status of the family (Brew, 2021). Moreover, it is also supported by the claim of Arifin (2024) that there is a significant positive relationship between teachers' development and teaching strategies to student academic performance. This is affirmed by Bressane (2024) who pointed out that teaching strategies are essentially in mitigating the negative impact of learning disabilities and improve students' academic performance. This is also true to motivation (Al-khresheh, 2024) and the Socio-economic status of the students (Sengonul, 2022).

## Conclusions

This study explored the factors influencing students' English language learning, academic performance, and critical thinking skills, providing insights into the complex relationships that shape student outcomes. The findings indicated a higher representation of female students in the STEM strand, along with a decline in enrollment from Grade 11 to Grade 12, suggesting potential challenges in student retention as they progress through senior high school.

Moreover, students generally exhibited a high level of English language learning, with motivation emerging as the strongest contributing factor, followed by teaching strategies and the learning environment. In contrast, parental involvement was the lowest-rated factor, indicating limited support in direct learning activities such as homework assistance or academic discussions at home. Despite this, students demonstrated outstanding academic performance, with the majority achieving scores in the 90-100 range. Similarly, their critical thinking skills were well-developed in areas like analyzing information and reflecting on their thinking, though they showed relative weakness in drawing inferences and explaining reasoning clearly.

In addition, regression analyses further emphasized the role of motivation, socioeconomic status (SES), teaching strategies, and the learning environment in predicting both academic performance and critical thinking. However, the modest explanatory power of the models ( $R^2 = 0.158$  for academic performance,  $R^2 = 0.336$  for critical thinking) suggests that other significant factors were not captured in this study. These findings align with Vygotsky's sociocultural theory, particularly his concept of the Zone of Proximal Development (ZPD), which supports the idea that students learn most effectively through guided interaction and scaffolded support in a socially rich learning environment (Yildiz, 2025).

In response to these findings, several key areas for improvement have been identified. Strengthening parental involvement in academic support, improving classroom conditions to minimize distractions, and refining teacher-student interactions to better adapt lessons can further enhance students' learning experiences. Additionally, efforts should be made to cultivate critical thinking in areas where students are less confident, promote independent learning habits, and integrate technology and real-world applications more deeply into English instruction to better prepare students for practical language use.

To further advance understanding in this area, future researchers are encouraged to explore additional variables that may influence student outcomes, such as emotional intelligence, digital literacy, peer influence, and learning styles. Longitudinal research could also offer valuable insights into how these factors evolve over time and interact with academic and cognitive development. Expanding the study to a broader and more diverse student population would also enhance the generalizability of the findings.

To abridge, this study emphasizes the importance of a supportive, engaging, and adaptive educational environment in fostering English language learning and academic success. By addressing the identified gaps and building on these recommendations, educators and

stakeholders can develop more holistic strategies that empower students to thrive both in school and beyond.

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## Affiliations and Corresponding Information

**Lito B. Galinada, LPT**

University of Science and Technology of Southern Philippines

**Grace S. Pimentel, PhD**

University of Science and Technology of Southern Philippines