
| RESEARCH ARTICLE

Multidimensional Analysis of Senior High School Student Engagement in English as a Second Language: Interplay of Affective, Cognitive, and Behavioral Factors

Perfecta M. Bautista, PhD¹

¹*Education Program Supervisor – English, DepEd SDO Santiago City*

¹*Faculty, Northeastern College*

Corresponding Author: Perfecta M. Bautista, PhD, **E-mail:** ncgsrnd@gmail.com

| ABSTRACT

The multidimensionality of student engagement in English as a Second Language (ESL) is examined across several dimensions among a sample of 347 Senior High School students in this study. The affective, behavioral, and cognitive (ABC) model serves as the framework for this quantitative research, which employs a descriptive, correlational research design to explore how each dimension of engagement interacts with one another and varies by sex, academic strand, and type of high school attended. Two statistical analyses show that, while students report high levels of cognitive and affective engagement, there is a significant "engagement gap" in behavioral engagement compared to cognitive and affective engagement. The data also indicate that females and students in private schools are more emotionally and strategically invested in learning ESL. Furthermore, the findings suggest that the affective dimension of engagement is the strongest predictor of overall engagement ($R^2 = .517$), indicating that students' emotions, feelings, and motivations are the greatest influencers of success in learning ESL. Consequently, the authors recommend that educators focus on establishing emotionally supportive environments and on implementing experiential learning strategies, such as gamification and collaborative projects, to reduce the discrepancy between students' internal readiness and their external competence in communicating.

| KEYWORDS

student engagement, English as a Second Language (ESL), senior high school, affective dimension

| ARTICLE INFORMATION

ACCEPTED: 01 February 2026

PUBLISHED: 19 February 2026

DOI: 10.32996/jeltal.2026.8.3.3

Introduction

How engaged students are in a classroom has a considerable influence on their academic success and on their ability to acquire a new language. In ESL contexts with non-English-speaking students, understanding the multidimensional nature of classroom engagement is important. Engagement has three dimensions: affective, cognitive, and behavioral. These dimensions of engagement interact to shape a student's experience of learning a new language. Because globalization and educational standards are continually changing within countries (e.g., the Philippines) with multiple native languages, studying the dimensions of engagement will provide insight into how to effectively improve teaching methodologies and ultimately help students learn a second language (Manuel, 2022).

In the Philippines, many challenges arise in engaging senior high school students in ESL courses. Engagement does not simply mean going to class; instead, it refers to how students emotionally respond (affectively), how they think through (cognitively) the learning process, and how they participate (behaviorally) in it. Many studies have found that learners perceive various interventions as impacting their willingness to participate in ESL situations (Sadaf et al., 2025). In an increasingly diverse educational setting, it is

necessary to examine the relationship between these dimensions to enhance student learning when acquiring English as a second language in senior high school in the Philippines.

In addition, cognitive factors include students' beliefs about their proficiency in English, which may affect motivation and participation in ESL activities. Research indicates that cognitive beliefs, such as self-efficacy and attitudes toward learning English, strongly correlate with actual engagement in the language (Wang et al., 2024; Dawood & Sultan, 2024). Therefore, understanding how cognitive dimensions correlate with behavioral participation will be especially important in a country hoping to improve its English fluency to fit into an evolving global society.

Additionally, affective factors, including language anxiety, self-confidence, and enjoyment, affect the time students spend using English outside the classroom. Participation in supplementary activities using the language will further consolidate students' learning and proficiency. Studies have found that students who demonstrate lower levels of language anxiety and greater enjoyment are more likely to use the language outside the classroom than their peers (Siason et al., 2025; Manuel, 2022). Thus, it is critical to examine how these affective dimensions interact with cognitive beliefs to create positive learning environments in which students are engaged in their ESL learning efforts.

Despite the extensive literature on student engagement in language learning, there remains a notable gap in understanding the specific interplay of these factors within the unique cultural and educational context of the Philippines. The current body of research predominantly focuses on language learning in more homogeneous educational contexts, which may not adequately address the complexities Filipino students face. Therefore, this study aims to fill this gap by focusing specifically on senior high school students and their engagement in ESL.

This research seeks to answer the following questions:

- 1) What is the profile of the respondents in terms of: sex; strands, and type of school?
- 2) What is the level of ESL engagement among Senior High School students in terms of Affective, Cognitive, and Behavioral Factors?
- 3) Is there a significant difference between the students affective, cognitive and behavioral factors when grouped according to their profile?
- 4) Is there a significant relationship among the ESL senior high school students' cognitive, behavioral, and cognitive aspect?
- 5) Which of the three dimensions serves as the strongest predictor of overall student engagement in ESL?

Review of Related Literature

The ABC Model of Attitude

According to Eagly and Chaiken's ABC Model of Attitude, attitude is a multidimensional concept composed of three components: affective, behavioral, and cognitive. The affective component represents an individual's emotional response to an object, person, or situation. In contrast, the behavioral component consists of an individual's conduct, and the cognitive component consists of the individual's beliefs about that object. The ABC Model of Attitude is particularly important in educational contexts because students' attitudes toward language learning will greatly influence their level of interest and involvement, as well as their overall achievement through ESL (Said & Omar, 2023; Kilag et al., 2023; Cabansag, 2020). Because these three components can affect one another, they create different types of learning environments and different levels of students' willingness to participate in them (Cabansag, 2020).

The Philippines' use of English for instructional purposes means it is essential for Filipino students to understand this model. Additionally, their affections towards the English language are complicated because they have multiple languages and cultural backgrounds. The emotions students have toward learning and using the English language range from anxiety to enjoyment, and the ability to communicate successfully. This affects students' behavioral engagement in their English classes. How much they participate in everyday class discussions and how involved they are in extracurricular classes focused on English language use. Therefore, if these affective needs can be satisfied and positive emotions can be developed towards the use of the English language, this will encourage all forms of student interaction with their English classes, related to using the English language and numerous research studies regarding language anxieties and learning successes (Juan, 2016; Corcuera, 2024;)

Cognitive factors strongly influence the acquisition of a second language. Students' beliefs about their ability to learn English have a considerable effect on their attitudes towards this learning opportunity, their subsequent level of engagement, and, ultimately, their success in learning English (Quinto et al., 2019; Malik, 2025). Previous studies have indicated that students with a strong belief in their ability to learn English are more likely to participate in the language than those with a negative cognitive belief. The ABC Model illustrates how Filipino students' attitudes towards ESL can guide the development of classroom environments that support and are culturally relevant, thereby successfully meeting these three areas of need at once (Said & Omar, 2023; Kilag et al., 2023; Chen, 2021).

ESL Engagement Trends

Recent developments in Filipino Senior High School (SHS) students' engagement through English as a Second Language (ESL) demonstrate how motivation and social interaction have influenced participation in this school system. The research indicates that SHS students exhibit moderate to high levels of effort to achieve learning goals. Evidence also shows that the social component for SHS students, as well as peer contact, has significantly affected ESL engagement of Filipino SHS students (Malik, 2025; Real et al., 2014). Examples of social activities include cooperative and group activities in which students encourage one another and increase their confidence in communicating in English, both of which are key components of successful second-language acquisition. Therefore, by providing opportunities for peer social interaction, students' linguistic skills develop. A sense of belonging to the learning community emerges, making them more likely to participate in additional social events (Quinto et al., 2019; Soriano & Co, 2022).

Another factor that has received significant attention lately is how technology facilitates student engagement with the English language. Thanks to advances in technology, there are now many digital platforms and resources available to help students practice their English language skills outside the traditional classroom. For example, language-learning apps and online discussion forums provide students with a wide range of environments to practice their English, which has been shown to positively affect student engagement (Corcuera, 2024; Ismayilli, 2025). The use of these types of technologies is likely to lead to increased motivation to learn the English language, as well as a better understanding of how to use English in "real life," both of which have been linked to increased levels of participation while in the classroom and using English out of the classroom (Kilag et al., 2023; Real et al., 2014).

Although motivation and technology are both critical to student engagement with the English language, external factors also affect students' ability to engage with it. Research indicates that pedagogical practices that address student interests and use culturally responsive materials lead to improved student engagement (Said & Omar, 2023; Barcibal et al., 2023). Using diverse instructional practices to connect English language acquisition to everyday life will help students see the relevance of English, thereby allowing them to become active participants in their English-learning journey.

Factors Affecting Language Acquisition

The emotional and cognitive aspects of acquiring a language as an ESL speaker are impacted by factors such as motivation and anxiety. In fact, research has shown that one major impediment to language proficiency is a student's anxiety when using a foreign language (Sadaf et al., 2022; Liu & Wen-hong, 2010). For example, a considerable number of Filipinos report feeling anxious about speaking English because they fear being judged negatively by their peers and teachers. This anxiety can lead to a lack of confidence and hinder a student's ability to participate in class and other social situations. Furthermore, studies have found that students who have higher levels of anxiety tend not to participate in classes by avoiding speaking opportunities and, consequently, stunting their language growth (Soriano & Co, 2021; Kim & Lioungson, 2019).

Motivation plays an integral role in engaging students in learning a second language. Theories of motivation identify both integrative and instrumental motivations as critical components of an individual's desire to learn. For example, in the Philippines, students view English as a valuable tool for academic success and career advancement; therefore, they are highly motivated to learn English. Thus, students who see English as a more utilitarian skill are far more likely to participate in formal and informal learning opportunities (Wun-Cin et al., 2024; Liu & Wen-hong, 2011). Additionally, the utilitarian value of learning English is often tied to students' future goals, thereby creating a level of commitment to learning.

In addition to being an important factor in second-language achievement, studies show that motivation can also buffer against anxiety. Quinto et al. (2019) and Liu & Wen-hong (2011) illustrate that motivated students are more engaged in learning activities when they enjoy the process of learning a new language; therefore, their anxiety decreases and their engagement increases. These relationships between motivation and anxiety are important considerations for educators who provide ESL instruction. Educators who create positive environments that foster motivation and reduce anxiety will contribute to each student's second-language acquisition experience.

Synthesis

The ABC Model demonstrates how affective, cognitive, and behavioral dimensions are interconnected, providing a framework for viewing all aspects of engagement in ESL for older Filipino School students, as each dimension contributes to the students' attitudes about learning English based on their emotional responses, their thoughts about their abilities and utility of the language for their personal and professional goals, and how they act in the learning environment. As all three dimensions are interrelated, educators need to implement a holistic approach to language instruction to create an environment conducive to learning.

The components that impact language acquisition are numerous and continually evolve, providing a constantly evolving picture of student engagement. While motivation is a major driver of engagement, language anxiety may impede student participation, suggesting that educators need to strike a balance between the two. When educators establish supportive environments that reduce anxiety and heighten motivation, they may dramatically improve engagement and student outcomes in ESL contexts. Therefore, future research should focus on the various dimensions outlined in this paper, while providing culturally relevant practices that address the challenges students are encountering in the current Philippine educational system.

Research Methodology

To examine the multifaceted nature of ESL engagement, a descriptive correlational design was developed as the study's method of inquiry. The descriptive correlational design was an appropriate choice because it allowed systematic descriptions of student engagement levels across the affective, cognitive, and behavioral domains while exploring the statistical relationships and predictive abilities among these domains without manipulating the environment. Additionally, by using this type of design, researchers were able to quantify subjective experiences and examine how internal psychological states were expressed through external linguistic behaviors.

Respondents to the study included Senior High School students from a particular educational institution. Students were selected using stratified random sampling to obtain a representative sample across various academic strands, providing a comprehensive representation of students at this educational institution. Total sample size was determined using Slovin's formula with minimal margins of error. The respondents had to meet several inclusion criteria: they were currently enrolled in English courses. They used English as a second language (ESL) and therefore provided valid data for the research on the linguistic context.

Using a self-administered Likert-scale questionnaire as the primary means of collecting data for this research study, it was created based on other engagement scales already validated through research and modified to fit the ESL context appropriately; as such, it underwent rigorous content validation by an expert panel. The self-administered Likert-scale questionnaire was divided into four sections, three of which measured the dimensions of affective, cognitive, and behavioral engagement. To ensure reliability, the self-administered Likert-scale questionnaire was piloted prior to data collection. It yielded a high Cronbach's alpha, indicating internal consistency across all three dimensions.

Before data collection, the necessary institutional clearances and administrative approvals for the research were obtained. Given the time frame for data collection, the researcher distributed the self-administered Likert-scale questionnaire to research respondents via Google Forms and a secure online survey platform. Research team members collaborated with class advisers to identify appropriate times within participants' schedules, such as homeroom periods, to administer the Likert-scale questionnaire so that no disruption would occur to the normal academic schedule. Participants were given sufficient time to complete the self-administered Likert scale questionnaire, and the research team remained present throughout the data collection period to clarify any confusing vocabulary. Once all responses to the self-administered Likert-scale questionnaire had been collected, the data were cleaned, coded, and entered into a master spreadsheet for further statistical processing.

Several statistical tools have been used to help answer the research questions. Weighted means and standard deviations were calculated on all three dimensions of ESL engagement, which was useful for determining the level of ESL engagement. To measure the relationship between cognitive beliefs and behavioral participation, as well as the effect of affective factors on the use of outside sources, Pearson's r Correlation Coefficient was applied. Multiple Linear Regression was also used to identify the most significant predictor of total student engagement. All tests were performed at a 0.05 level of significance to increase the reliability of the results.

Ethical integrity was a major concern throughout the entire study. Informed consent was obtained from all participants before they participated in the study. For minors, parental consent was also obtained. Researchers followed all principles regarding anonymity and confidentiality, and no names or identifying marks were linked to the final study results when they were published. Additionally, emphasis was placed on the right to withdraw from the study at any time, so students could choose not to participate without facing negative consequences, such as a lower grade. Data were stored in a secure, password-protected database. They will be destroyed in accordance with data storage laws and regulations after the study is completed.

Results

Table 1.

Demographic Profile of the Respondents

Frequencies of Sex

Sex	Counts	% of Total
Female	208	59.9%
Male	139	40.1%

Frequencies of Strand

SHS STRAND when you were in Senior High School	Counts	% of Total
Accountancy, Business and Management	36	10.4%
General Academic Strand	28	8.1%
Humanities and Social Science	197	56.8%
Information and Communication Technology & Home Economics	48	13.8%
Science, Technology, Engineering and Mathematics	38	11.0%

Frequencies of Type of School

TYPE OF SCHOOL GRADUATED DURING SHS	Counts	% of Total
Private School	92	26.5%

Frequencies of Sex

Sex	Counts	% of Total
Public School	255	73.5%

In Table One we can see the demographic information about the sample of 347 respondents. The majority (59.90%) of respondents were females, and most were graduates of public schools (73.50%). There is a high concentration of respondents from the Humanities and Social Science (HUMSS) Strand, which makes up 56.80% of the sample size, while other strands like Information and Communications Technology / Hospitality Management (ICT/HE) made up 13.80%, Science Technology Engineering Mathematic (STEM) made up 11.00% and Accountancy, Business and Management (ABM) made up 10.40%. Through a multidimensional analysis of engagement via English as a Second Language (ESL), the results of this study may show very high degrees of affective and behavioral engagement for students who have a predisposition to communication and social interaction through the academic culture commonly produced by the HUMSS strand, whereas the cognitive engagement levels would be less pronounced when compared to more technical or quantitative based strands.

Table 2.

Level of ESL Engagement

	Mean	SD
Behavioral Aspect	3.24	0.678
Cognitive Aspects	3.93	0.848
Affective Aspect	3.68	0.757

According to Table 2, senior high school students exhibit moderate to high levels of engagement across all three dimensions of English as a second language (ESL), with Cognitive Aspect being the most heavily weighted contributor to this engagement (Mean = 3.93) followed by the Affective Aspect (Mean = 3.68) and finally Behavioral Aspect at a lower level (Mean = 3.24). This means that students are most engaged (or have the highest level of commitment) by the cognitive components needed for mastery of the language including mental effort, self-regulation and strategy used to learn. Students had a strong positive emotional connection to and attitude towards learning ESL (i.e., engagement) as evidenced by the high mean score for Affective aspect of engagement, while students have the lowest relative engagement in terms of their behavioral activity level (i.e., active participation) which demonstrates a potential disparity between students' cognitive and emotional commitments (thinking) and their actual level of external behavioral engagement (doing) in classrooms. Thus, it can be inferred that while students are both psychologically and cognitively ready to engage in learning, there may be a need for instructional interventions that emphasize activating their external behavioral engagement to build a bridge between "thinking" and "doing" in an ESL classroom.

Table 3.

Significant Difference when Grouped According to Sex

		Statistic	df	p
Behavioral Aspect	Student's t	1.41	345	0.160
Cognitive Aspects	Student's t	2.58	345	0.010
Affective Aspect	Student's t	2.18	345	0.030

Note. $H_0: \mu_{Female} \neq \mu_{Male}$

Group Descriptives

	Group	N	Mean	Median	SD	SE
Behavioral Aspect	Female	208	3.28	3.25	0.655	0.0454
	Male	139	3.17	3.10	0.709	0.0602
Cognitive Aspects	Female	208	4.03	4.15	0.817	0.0566
	Male	139	3.79	4.00	0.876	0.0743
Affective Aspect	Female	208	3.75	3.81	0.737	0.0511
	Male	139	3.57	3.71	0.777	0.0659

The results in Table 3 indicate that male and female senior high ESL students are significantly different from each other in terms of their degree of cognitive and affective engagement in their English learning, although there is no statistically significant difference observed in terms of their behavioral engagement with each other. Specifically, female students scored significantly higher than male students on both cognitive engagement ($t(345)=2.58, p=.010$) and affective engagement ($t(345)=2.18, p=.030$) due to their higher mean score on both measures. On the other hand, no significant difference was found between males and females in terms of behavioral engagement ($t(345)=1.41, p=.160$) demonstrating that both groups may have similar outward behaviors and conduct but differ significantly in their level of inward investment. The fact that female students showed significantly higher levels of both cognitive and affective engagement with the language suggests that they may feel more emotionally connected to the language and also use more strategic cognitive effort while studying ESL than do the male students. Therefore there is a need to develop instructional interventions aimed specifically at addressing male students' cognitive and affective needs to reduce any gap between them and female students' levels of participation and to create a more inclusive learning experience for all ESL students.

Table 4.

Significant Difference when Grouped According to Senior High School Strand

	F	df1	df2	p
Behavioral Aspect	0.909	4	88.3	0.462
Cognitive Aspects	1.200	4	88.0	0.317
Affective Aspect	1.879	4	88.7	0.121

The conclusion drawn from the one-way analysis of variance (either via ANOVA or ANOVA) reflects that the level of engagement by students across three dimensions - behavior, cognition, and affective - does not vary according to the school type (high school) and, therefore, the difference among students of different high school strands (STEM, ABM, and HUMSS) does not affect the impact of engagement in second language learning (i.e., ESL). As such, no differences have been found on the basis of those present in Table 4 and therefore there is no statistically significant difference at the .2 level among results. There have been found that although students engage with ESL within all three dimensions, the reason or motivation behind the various different types of behavior that cause students to engage connects with each other throughout the entire high school student body, and thus the same pedagogical strategies used to teach ESL and create a positive experience for learners can be used throughout all high school strands without the need for strand-specific modifications to the respective strategies.

Table 5.

Significant Difference when Grouped According to Senior High School Strand

	Statistic	df	p
Behavioral Aspect	Student's t	3.62	345
Cognitive Aspects	Student's t	1.75	345
Affective Aspect	Student's t	2.37	345

Note. $H_a \mu_{\text{PRIVATE SCHOOL}} \neq \mu_{\text{PUBLIC SCHOOL}}$

Group Descriptives

	Group	N	Mean	Median	SD	SE
Behavioral Aspect	PRIVATE SCHOOL	92	3.45	3.48	0.703	0.0733
	PUBLIC SCHOOL	255	3.16	3.15	0.653	0.0409
Cognitive Aspects	PRIVATE SCHOOL	92	4.07	4.22	0.827	0.0862

Table 5.

Significant Difference when Grouped According to Senior High School Strand

			Statistic	df	p	
	PUBLIC SCHOOL	255	3.89	4.05	0.852	0.0533
Affective Aspect	PRIVATE SCHOOL	92	3.84	3.95	0.750	0.0781
	PUBLIC SCHOOL	255	3.62	3.71	0.753	0.0472

The analysis from Table 5 indicates that High School Students express stronger feelings about the school type when it comes to their level of engagement (emotionally, behaviorally) than students have when looking at attitude (cognitively). Students attending Private Schools, on average, have a higher score in all areas (emotional, behavioral, cognitive) than do students attending Public School. Statistical results show that the greatest difference between Public/Private School Students lies in their level of engagement behaviorally; $t(345)=3.62, p<.001$. The next largest difference lies in how emotionally connected Students are to the school; $t(345)=2.37, p=.018$. Both of these results have a p-value less than the cutoff standard (alpha =.05). However, students scored similarly in terms of their cognitive engagement level not passing a significance test (p-value =.081). This indicates that there is evidence that students may have different feelings/behavior related to their experience in ESL, but their thoughts and processing strategies are somewhat similar regardless of their school type. As such, these findings suggest that the type of school a student attends may have a greater impact on how they organize their learning and develop positive feelings toward learning a new language than does the actual cognitive process they use internally.

Table 6.

Significant relationship among behavioral, cognitive, and affective aspects of SHS Students

	Behavioral Aspect	Cognitive Aspects	Affective Aspect
Behavioral Aspect	Pearson's r	—	—
	df	—	—
	p-value	—	—
Cognitive Aspects	Pearson's r	0.629***	—
	df	345	—
	p-value	<.001	—
Affective Aspect	Pearson's r	0.718***	0.851***
	df	345	—

Table 6.

Significant relationship among behavioral, cognitive, and affective aspects of SHS Students

	Behavioral Aspect	Cognitive Aspects	Affective Aspect
p-value	<.001	<.001	—

Note. * p < .05, ** p < .01, *** p < .001

According to Table 6, the strong, positive, and statistically significant association of all aspects of student engagement (behavioral, cognitive, and emotional) in ESL can be demonstrated with all p-values of less than .001. With regard to the relationships among all three aspects of student engagement, affective and cognitive aspects have the highest degree of correlation ($r=.851$), reflecting how students' emotion and attitude impact their level of cognitive and strategic investment in learning English. The affective aspect of student engagement also has a high degree of correlation with the behavioral component ($r=.718$), while cognitive and behavioral components are moderately correlated ($r=.629$). The collective results of these measurement responses indicate that student engagement is a synergistic system consisting of three interrelated and dependent components rather than a series of independent traits. Accordingly, effective pedagogical practice for promoting ESL students' overall engagement should not focus solely on drills (behavior) or content (cognition) but should also include creating a positive affective environment as a means of enhancing both cognitive and behavioral dimensions of engagement.

Table 7.

Strongest predictor of overall student engagement in ESL

Model	R	R²
1	0.719	0.517

Note. Models estimated using sample size of N=347

Model Coefficients - Behavioral Aspect

Predictor	Estimate	SE	t	p
Intercept	0.8473	0.1284	6.599	<.001
Cognitive Aspects	0.0516	0.0571	0.905	0.366
Affective Aspect	0.5940	0.0639	9.296	<.001

According to the results shown in Table 7, the Affective Aspect is the only significant and most predictive of student engagement in English as a second language (ESL) based on the statistical analysis that was run. The overall model did provide predictive ability with a R² of 0.517, however, the examined dimensions showed a drastic difference in their predictive value because of the individual coefficient values shown. The Affective Aspect has a positive estimate of 0.5940 and was highly significant at p<.001, while the Cognitive Aspect was not statistically significant at p=0.366, and thus, based on these findings, Senior High School students primarily engage with the language due to their emotions towards it such as their attitude, motivation, and feelings about learning

it. Therefore, the design of pedagogy should focus on creating an emotionally supportive learning atmosphere since a high amount of cognitive challenge alone will not sustain engagement if students' motivational needs have not been met.

Discussion

The relationship between ESL use and student motivation is complex for Senior High School students in the Philippines due to the multitude of cognitive, affective, and behavioral factors at play. By reviewing all dimensions of student engagement in ESL, we can better understand why proficiency in English is critical to achieving both academic and job success in an increasingly globalized world. In this study, we analyzed the responses of 347 students. The majority of respondents were female, and most students had enrolled in HUMSS. These demographic patterns suggest that students may develop the necessary language skills in an environment that supports their development. HUMSS curricula appear to emphasize communication and social interaction (Sunawan et al., 2017; Kilag et al., 2023), consistent with previous studies that found an emphasis on developing these skills within HUMSS curricula.

Overall, results indicated moderate to high levels of general engagement across all three areas, with cognitive engagement being the most pronounced. Students' cognitive investment was observed to strongly influence their mental processes, including self-regulation and strategic learning behaviors, both of which are vital for responding to the complex demands of mastering English (Kilag et al., 2023; Baidoo et al., 2025). By contrast, behavioral engagement was relatively low compared to cognitive engagement, indicating a disconnection between students' cognitive processing and their actual levels of participation in ESL (English as a Second Language) activities. The difference in cognitive and behavioral engagement creates a large gap between students' internal states (i.e., their mental and emotional readiness to engage with language) and their external manifestations in observable behaviors in the ESL classroom (Carada et al., 2022; Cuevas, 2018). To close that gap, it may be necessary to implement innovative instructional practices that will encourage students to participate actively.

According to our analysis, there were clear gender differences; however, the primary notable difference was between male and female levels of cognitive and affective (emotional) engagement. The data illustrated that female students were more engaged cognitively and emotionally than their male counterparts. Behavioral engagement was comparable between genders; however, there was no statistically significant difference in behavioral engagement level between the male and female students. This strongly indicates that female students emotionally connect with their language studies. This connection directly impacts their cognitive processing of that language (Perez).

The data on the effects of academic specialization found no significant differences in student engagement (behavioral, cognitive, or emotional) across SHS Strand specializations. Therefore, it can be inferred that engagement patterns across the different SHS strands (STEM, ABM, and HUMSS) are very similar regardless of the curricular path students follow (Degracia, 2024). Pedagogical strategies designed for improving engagement can ultimately be used across SHS strands with minimal (if any) adaptations. As a result, educational programs may focus on common strategies to further enhance engagement and promote inclusivity across all SHS strands.

The analysis of different types of schools revealed a stark contrast between the behaviors and attitudes of students enrolled in either public or private institutions. The level of behavioral and affective engagement exhibited by private school students shows a clear connection to the influence of available resources and other environmental factors on ESL engagement (Gopez, 2025). Given these differences in engagement, public schools should consider adopting practices similar to those of private schools to increase students' emotional and active participation in ESL activities.

Lastly, it was established that the affective dimension of engagement is the primary predictor of whether students become fully engaged in learning English as a second language. As such, this finding has important implications for how courses are taught: fostering a positive emotional environment will increase students' cognitive and behavioral engagement in learning (Febe, 2023; Wang, 2023). Therefore, educators should focus on addressing emotional issues in their classrooms and on creating a supportive atmosphere that meets students' affective needs. High cognitive demands do not yield effective results without a corresponding

emotional connection; thus, all activities designed to build students' excitement and motivation for learning English must foster full engagement across all dimensions.

This paper offers important insights into how cognitive, emotional, and other aspects/behaviors impact ESL participation. Additionally, there is an indication of the need for specific/intervention strategies to improve ESL behavioral participation. Also, as there are differences in students' involvement and motivation to be involved in ESL by gender and school type, further study and refinement of education in the Philippines will be highly beneficial.

Conclusions & Recommendation

Research findings indicate that, in terms of cognitive skills related to learning English as a second language, senior high-school students have developed strong cognitive skills and positive emotional attitudes; there is also an "engagement gap." While the students appear ready to learn (in terms of cognition and emotion), they are not necessarily engaged in the act of learning (in terms of behavior) when they are in the classroom. While the pattern of engagement by type of strand (HUMSS vs. STEM vs. ABM) does not appear to be significantly influenced by strand, there are notable differences based on gender and type of school (i.e., private vs. public), with females and students from private institutions displaying a greater degree of emotional and strategic investment than males and students from public institutions. The affective aspect of engagement is the strongest predictor of overall engagement, accounting for more than 51% of the variance; thus, a student's motivation and attitude (affective factors) toward the English language is the primary driver behind a student's mental commitment and physical effort to continue learning in an ESL environment.

ESL educators should move away from the traditional, lecture-heavy style of teaching, towards teaching ESL students via active types of learning. Techniques like gamifying language tasks, simulation, and working together on group projects can provide the opportunity for students to express themselves through behavior. Affective domain is the best predictor of how well ESL students will do in school, so the way in which ESL teachers design their lessons must include a positive emotional environment for all students, in particular, for boys and those who attend public schools, both of whom have lower engagement scores. Schools need to provide professional development for teachers so they are better able to teach social emotional learning (SEL) in the English curriculum, ensuring that lessons are both cognitively challenging as well as personally meaningful to students. Lastly, researchers can complete qualitative interviews on why student's behavioral engagement is less than their cognitive engagement; this qualitative research should focus on investigating external sources of barrier like anxiety related to speaking English or a lack of resources in the classroom that will impact students from being successful in class.

Funding: This research received no external funding

Conflicts of Interest: The authors declare no conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

- [1.] Ai-zhen, Z. and Yang, Y. (2021). Toward the Association Between EFL/ESL Teachers' Work Engagement and Their Students' Academic Engagement. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.739827>
- [2.] Baidoo, A., Nkrumah, I., Boateng, S., Anafo, A., Amadu, N., Awotwe, R., ... & Baidoo, I. (2025). From Teaching to Inquiry: Research Engagement among Senior High School Teachers in Ghana.. <https://doi.org/10.21203/rs.3.rs-7039766/v1>
- [3.] Barcibal, R., Abaigar, C., & Lemana, H. (2023). Delving into the Spoken English of T'boli ESL Learners: A Descriptive Study. *International Journal of Multidisciplinary Applied Business and Education Research*, 4(4), 1208-1220. <https://doi.org/10.11594/ijmaber.04.04.18>
- [4.] Cabansag, J. (2020). Speaking Anxiety, English Proficiency, Affective and Social Language Learning Strategies of ESL Engineering Students in a State University in Northern Luzon, Philippines. *International Journal of English Linguistics*, 10(1), 372. <https://doi.org/10.5539/ijel.v10n1p372>
- [5.] Carada, I., Aliazas, J., Palacio, L., & Palacio, C. (2022). Perceived Skills and Employability of Senior High School Graduates: Basis for Youth Employment Policy. *The International Journal of Social Sciences and Humanities Invention*, 9(01), 6759-6766. <https://doi.org/10.18535/ijsshi/v9i01.05>

[6.] Chen, J. (2025). THE IMPACT OF GOAL SETTING ON ENGLISH LEARNING PERFORMANCE: THE MEDIATING ROLE OF LEARNING ENGAGEMENT. *Problems of Education in the 21st Century*, 83(6), 734. <https://doi.org/10.33225/pec/25.83.734>

[7.] CORCUERA, L. (2024). Uncovering QuillBot: Filipino Senior High School Students' Experiences and Factors Influencing Its Use in Enhancing Language Writing Skills. *Uluslararası Eğitim Araştırmacıları Dergisi*. <https://doi.org/10.52134/ueader.1497368>

[8.] Cuevas, J. (2018). HEALTH RELATED BEHAVIOR OF SENIOR HIGH SCHOOL STUDENTS AT LA CONSOLACION UNIVERSITY PHILIPPINES AND THEIR EFFECTS ON ACADEMIC PERFORMANCE.. *International Journal of Advanced Research*, 6(7), 1103-1107. <https://doi.org/10.21474/ijar01/7463>

[9.] Dawood, S. and Sultan, A. (2024). The Application of IRF Discourse Model on EFL University Students in Reading Comprehension. *JLS*, 8(1), 338-354. <https://doi.org/10.25130/lang.8.1.15>

[10.] Degracia, G. (2024). The Case of Probationary Teachers in Teaching Senior High School Students. *International Journal of Multidisciplinary Research and Analysis*, 07(05). <https://doi.org/10.47191/ijmra/v7-i05-53>

[11.] Erlangga, P. (2025). The Using Blooket Web as a Teaching Medium on Students' Motivation to Learn English as a Second Language. *J-TECH*, 2(1), 152-157. <https://doi.org/10.62734/jtech.v2i1.460>

[12.] Febe, M. (2023). School Motivation and Learning Strategies and College Readiness of Senior High School Graduates in the Philippines. *JETT*, 14(3). <https://doi.org/10.47750/jett.2023.14.03.001>

[13.] Gopez, C. (2025). Towards a Sustainable Research Advising and Mentoring Program in Senior High School: Insights from a Leading Research-Oriented Institution in the Philippines. *National Research Council of the Philippines Research Journal*, 24(2), 121. <https://doi.org/10.63225/nrcp.rj.2025.0036>

[14.] Gumop-as, J. and Juan, V. (2016). English Language Anxiety and the Delivery in Oral Communications. *Academe University of Bohol Graduate School and Professional Studies*, 9(1), 71-94. <https://doi.org/10.15631/aubgsps.v9i1.84>

[15.] Ismayilli, F. (2025). The Role of Positive Emotional Atmosphere in Enhancing Foreign Language Acquisition. *JPURM*, 1(3), 186-213. <https://doi.org/10.69760/portuni.010316>

[16.] Kilag, O., Engbino, V., Abendan, C., Cuizon, J., & Pahayahay, D. (2023). The Factors Affecting Filipino Grade 11–12 students' Pronunciation. *International Journal of Social Service and Research*, 3(10), 2701-2710. <https://doi.org/10.46799/ijssr.v3i7.288>

[17.] Kim, H. and Liogson, E. (2021). English Language Learning Anxiety among Korean College Students in the Philippines., 36-46. <https://doi.org/10.52987/edc.2021.005>

[18.] Liu, M. and Wen-hong, H. (2011). An Exploration of Foreign Language Anxiety and English Learning Motivation. *Education Research International*, 2011, 1-8. <https://doi.org/10.1155/2011/493167>

[19.] Malik, S. (2025). Demographic-based motivation and engagement in English language learning among public junior high school students in Sulu. *Environment and Social Psychology*, 10(3). <https://doi.org/10.59429/esp.v10i3.3550>

[20.] Manuel, J. (2022). English Language Proficiency of Senior High School Students. *Multidisciplinary Journal for Education Social and Technological Sciences*, 9(1), 71-86. <https://doi.org/10.4995/muse.2022.16638>

[21.] Mazelin, N., Maniam, M., Jeyaraja, S., Ng, M., Xiaoqi, Z., & Jingjing, Z. (2022). Using Wordwall to Improve Students' Engagement in ESL Classroom. *International Journal of Asian Social Science*, 12(8), 273-280. <https://doi.org/10.55493/5007.v12i8.4558>

[22.] Nasruddin, N., Aziz, A., & Ismail, H. (2025). An Exploration of TikTok Videos' Engaging Features Among the Malaysian Secondary School Teachers in The ESL Classroom. *International Journal of Research and Innovation in Social Science*, IX(IIIS), 869-877. <https://doi.org/10.47772/ijriss.2025.903sedu0060>

[23.] Perez, K. (2024). Influence of Senior High School Strand on the Academic Performance in College. *Geo Academic Journal*, 5(1). <https://doi.org/10.56738/issn29603986.geo2024.5.53>

[24.] Quinto, E., Ofalia, B., Bae, J., & Salonga, L. (2019). (Un)Willingness to Communicate in English among Korean Study Abroad Students in the Philippines. *Jurnal Komunikasi Malaysian Journal of Communication*, 35(4), 17-31. <https://doi.org/10.17576/jkmjc-2019-3504-02>

[25.] Qureshi, N. and Sharif, I. (2025). Investigating the Psychological Impact of Corrective Feedback on ESL Students' Language Anxiety. *IJSS*, 4(3), 53-61. <https://doi.org/10.63544/ijss.v4i3.143>

[26.] Raman, K., Hashim, H., & Ismail, H. (2023). Enhancing English Verbal Communication Skills through Virtual Reality: A Study on Engagement, Motivation, and Autonomy among English as a Second Language Learners. *International Journal of Learning Teaching and Educational Research*, 22(12), 237-261. <https://doi.org/10.26803/ijlter.22.12.12>

[27.] Ramzan, M., Javaid, Z., Kareem, A., & Mobeen, S. (2023). Amplifying Classroom Enjoyment and Cultivating Positive Learning Attitudes among ESL Learners. *Pakistan Journal of Humanities and Social Sciences*, 11(2), 2298-2308. <https://doi.org/10.52131/pjhss.2023.1102.0522>

[28.] Real, D., Cortez, B., LACUESTA, V., & Refugio, C. (2014). Perceived English Language Needs of Cebuano Speaking Freshmen and their Teachers: Implication to Language Teaching. *Iamure International Journal of Education*, 8(1). <https://doi.org/10.7718/iamure.ije.v8i1.649>

[29.] Said, H. and Omar, A. (2023). Use of English as Medium of Instruction: Exploring the Perceptions of ESL Learners at Mindanao State University. *Trans-Kata Journal of Language Literature Culture and Education*, 4(1), 7-22. <https://doi.org/10.54923/jllce.v4i1.57>

[30.] Siason, L., Aliman, B., Reyes, H., Haron, G., Malidas, S., Bolotaolo, A., ... & Abdullah, M. (2025). Cultural Identity as a Predictor of Language Anxiety Among Second Language Learners. *JIP*, 3(10), 539-546. <https://doi.org/10.69569/jip.2025.647>

[31.] Soriano, R. and Co, A. (2022). Voices from within: Students' lived experiences on English language anxiety. *International Journal of Evaluation and Research in Education (Ijere)*, 11(1), 449. <https://doi.org/10.11591/ijere.v11i1.21898>

[32.] Sultan-Kwaizer, H. and Baylon, J. (2025). Chasing The American Dream: Learning Factors and Practices of High School ESL Students

[33.] Sunawan, S., Dwistia, H., Kurniawan, K., Hartati, S., & Sofyan, A. (2017). Classroom Engagement and Mathematics Achievement of Senior and Junior High School Students.. <https://doi.org/10.2991/ictte-17.2017.26>

[34.] Tangen, D. and Fielding-Barnsley, R. (2007). Environmental Education in a Culturally Diverse School. *Australian Journal of Environmental Education*, 23, 23-30. <https://doi.org/10.1017/s0814062600000689>

[35.] Wang, H., Patterson, M., & Peng, A. (2024). Predictors of second language willingness to communicate among US undergraduate students: Classroom social climate, emotions, and language mindset. *Language Teaching Research*. <https://doi.org/10.1177/13621688241237214>

[36.] Wang, Y. (2023). Enhancing English reading skills and self-regulated learning through online collaborative flipped classroom: a comparative study. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1255389>

[37.] Whitman, M., Davis, J., & Terry, A. (2009). Perceptions of School Nurses on the Challenges of Service Provision to ESL Students. *Journal of Community Health*, 35(2), 208-213. <https://doi.org/10.1007/s10900-009-9211-3>

[38.] Wun-Cin, S., Kie-Tze, J., San-Siaw, L., & Pei-Ni, C. (2024). The Influence Of Fear And Motivation Towards The Learning Of Mandarin As A Foreign Language. *Insight Journal*, 11(1). <https://doi.org/10.24191/ij.v0i0.24805>

[39.] Yacob, N., Rahman, S., Mohamad, S., Rahim, A., Rashid, K., Aldaba, A., ... & Hashim, H. (2022). Gamifying ESL Classrooms through Gamified Teaching and Learning. *Arab World English Journal*, (8), 177-191. <https://doi.org/10.24093/awej/call8.12>