

Language Learning Strategies, Language Attitude, and Language Exposure: A Structural Equation Modeling Study of Motivation in Language Learning

Arturo T. Fernandez¹, Marilou Limpot²

College of Teacher Education, Professional Schools, University of Mindanao, Davao City, Philippines

DOI: <https://doi.org/10.51244/IJRSI.2026.1303000036>

Received: 07 March 2026; Accepted: 12 March 2026; Published: 26 March 2026

ABSTRACT

This study examined the levels of language learning strategies, language attitude, and language exposure among senior high school students and analyzed their relationships with motivation in language learning using Structural Equation Modeling (SEM). A quantitative, descriptive–correlational research design was employed. Results indicated that language learning strategies, language attitude, language exposure, and motivation in language learning were all at a very high level. Pearson correlation analysis revealed significant relationships among the variables and students' motivation in language learning ($p < .01$).

Regression analysis further showed that language learning strategies and language exposure were significantly associated with students' motivation in language learning. Attitude toward language also demonstrated a statistically significant relationship with motivation, although the direction of the relationship varied across model estimations. Three alternative structural models were tested, and Model 3 demonstrated the most acceptable goodness-of-fit indices based on established SEM criteria, including CMIN/DF, GFI, CFI, NFI, TLI, RMSEA, and P-close.

The findings suggest that students' motivation in language learning is related to the interaction of cognitive, affective, and environmental factors, particularly strategy use, language attitudes, and exposure to language in different contexts. These results highlight the importance of providing learners with opportunities to apply effective language learning strategies, develop positive attitudes toward language learning, and experience meaningful exposure to language both inside and outside the classroom.

Keywords: Language Learning Strategies; Language Attitude; Language Exposure; Language Learning Motivation; Structural Equation Modeling (SEM); Education

INTRODUCTION

Motivation is widely recognized as a central factor in language learning because it influences learners' persistence, engagement, and willingness to invest effort in developing language proficiency (Dörnyei & Ushioda, 2013). Language learning strategies, attitudes toward language, and exposure to language environments have also been identified as key factors associated with learners' motivation.

Language learning strategies refer to deliberate actions and learning behaviors that students employ to facilitate understanding, retention, and effective use of a language (Oxford, 1990). Positive language attitudes may support learners' willingness to engage in language use and communication, while negative attitudes or language anxiety may influence learning experiences differently (Horwitz et al., 1986; MacIntyre & Gardner, 1994).

Exposure to language across different contexts such as home, school, and media environments provides opportunities for learners to observe and practice language in meaningful ways (Dörnyei, 2001). Recent research also emphasizes the role of learning environments and digital exposure in shaping learners' motivation and engagement in language learning (Lamb & Arisandy, 2020; Griffiths & Oxford, 2021). Recent studies also

highlight the role of learning environments, learner engagement, and self-regulated learning strategies in shaping motivation in language learning (Derakhshan et al., 2023; Zhang & Zhang, 2022).

While many studies recognize the important role of language learning strategies, attitudes, and language exposure in shaping language learning motivation (Dörnyei, 2001; Gardner & Lambert, 1972; Oxford, 1990; Noels et al., 2000; Pelayo & Napil, 2025), there is still limited and localized literature examining the relationships among these factors, particularly in the context of senior high school students enrolled in Filipino subjects in Region XI. Because of this, there remains a need for studies that determine how strategies, attitudes, and exposure influence students' motivation in learning Filipino.

According to the Socio-Educational Model of Gardner and Lambert (1972), motivation in language learning is divided into two main types: integrative and instrumental motivation. Integrative motivation refers to a learner's desire to become part of the target language community, while instrumental motivation focuses on practical goals such as obtaining a job or passing examinations. The model highlights that motivation is not only a personal interest but is also deeply connected to social context and learning goals. In the study of Noels et al. (2000), the role of self-determination theory in language learning was also recognized, where intrinsic motivation—based on personal interest—is considered more powerful than extrinsic motivation. Figure 1 shows conceptual framework of the comprehensive structural model of motivation in language learning.

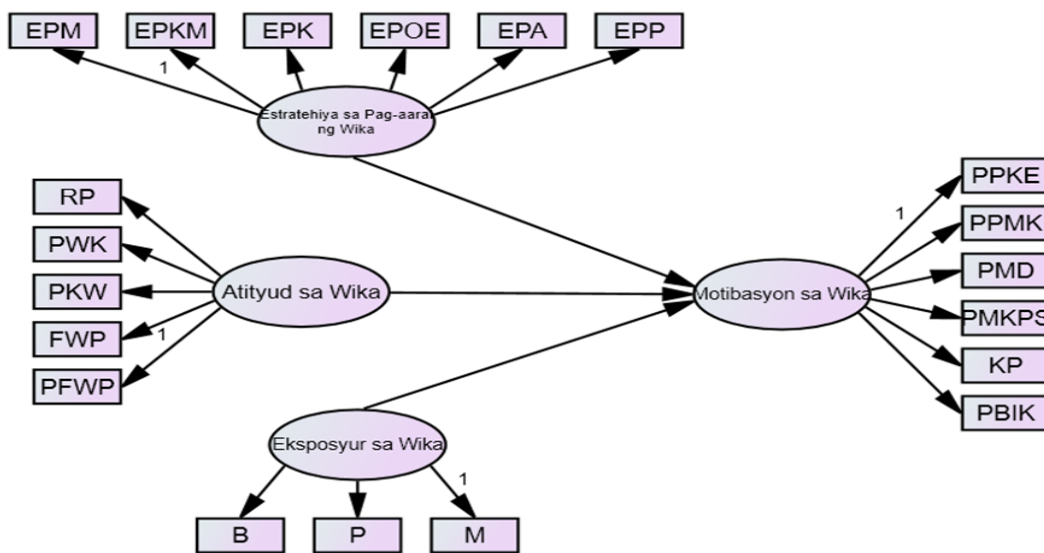


Figure 1. Conceptual Model Showing the Direct Relationship among Latent Exogenous Variables

This study aims to design the most appropriate model of learners' motivation in language learning. Specifically, it seeks to determine the levels of language learning strategies among senior high school students in terms of memory strategies, cognitive strategies, metacognitive strategies, compensatory strategies, organizational strategies, affective strategies, and social strategies. It also aims to determine the level of attitude toward language learning among senior high school students in terms of cultural realism, respect for language and culture, the perceived importance and value of language, Filipino posture toward the global language (FWP), anxiety, positive attitude, and the level of language exposure of senior high school students in their homes, schools, and media.

Furthermore, the study aims to determine the level of learners' motivation through integrative and instrumental motivation. It also seeks to examine the significant relationships between language learning strategies and motivation, attitude and motivation, and language exposure and motivation. In addition, the study investigates the combined influence of language learning strategies, attitude toward language, and language exposure on learners' motivation. Finally, it aims to identify the most appropriate model of motivation in language learning among senior high school students.

This study aims to explore and explain the relationships among strategies, attitudes, and exposure to language in shaping students' motivation in language learning. Through the development of a structural model, the study is expected to contribute significantly to the field of education, particularly in the teaching and learning of the Filipino language. Moreover, it supports the attainment of SDG 4: Quality Education, which emphasizes inclusive and equitable quality education for all.

METHOD

Participants and Sampling Procedure

The participants of this study were senior high school students enrolled in public secondary schools in Region XI, Philippines. A total of 450 students participated in the study. The required sample size was determined using the Raosoft sample size calculator to ensure adequate statistical power and representativeness of the population.

The respondents were selected using stratified random sampling. In this procedure, the population was divided into relevant strata, and participants were randomly selected from each group to ensure proportional representation. This sampling technique was appropriate because the population was assumed to be heterogeneous in terms of school context and learner characteristics (Parsons, 2017; Yıldız et al., 2016).

Research Instrument

Data were collected using a structured survey questionnaire adapted from several previously validated instruments. The questionnaire was modified to suit the context of senior high school students learning Filipino. Prior to data collection, the instrument underwent content validation by experts and pilot testing to ensure clarity, relevance, and appropriateness of the items.

The instrument consisted of four major sections:

1. Language Learning Strategies – Adapted from Cawagdan-Cuarto and Rivera (2018), consisting of 50 items that measured various learning strategies including memory, cognitive, metacognitive, compensatory, organizational, affective, and social strategies.
2. Attitude Toward Language Learning – Adapted from Marefat and Pakzadian (2017), consisting of 28 items measuring learners' attitudes toward language in terms of cultural realism, respect for language and culture, perceived value of language, and related attitudinal dimensions.
3. Language Exposure – Adapted from Magno et al. (2009), consisting of 20 items measuring the extent of students' exposure to language across different contexts, including home, school, and media environments.
4. Motivation in Language Learning – Adapted from Jämielä Dastmardi (2008), consisting of 25 items measuring integrative and instrumental motivation in language learning.

Research Design and Data Analysis

This study employed a non-experimental quantitative research design using Structural Equation Modeling (SEM) to examine the relationships among language learning strategies, language attitude, language exposure, and motivation in language learning.

The data were analyzed using Confirmatory Factor Analysis (CFA), regression analysis, and structural path modeling to examine the relationships among latent variables. SEM was employed because it allows the simultaneous examination of multiple relationships between observed and latent variables and enables the identification of the most appropriate structural model explaining the relationships among the variables (Ullman & Bentler, 2012).

Model estimation and evaluation were conducted using Analysis of Moment Structures (AMOS). Several goodness-of-fit indices were used to assess the adequacy of the structural models, including the Chi-square to degrees of freedom ratio (CMIN/DF), Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Tucker–Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and P-close.

When the initial model did not meet the recommended fit thresholds, model modifications were performed based on modification indices provided by AMOS while maintaining theoretical justification. The final model was selected based on its ability to satisfy the recommended fit index criteria and its theoretical consistency in explaining the relationships among language learning strategies, language attitudes, language exposure, and motivation in language learning.

| | |
|---|---------------|
| Chi Square/Degree of Freedom (CMIN/DF) | 0 < value < 2 |
| P Value | >.05 |
| Normative Fit Index (NFI) | >.95 |
| Comparative Fit Index (CFI) | >.95 |
| Goodness of Fit Index (GFI) | >.95 |
| Tucker-Lewis Index | >.95 |
| Root Mean Square Error of Approximation (RMSEA) | <.05 |
| P-close | <.50 |

RESULTS AND DISCUSSION

Level of Language Learning Strategies among Senior High School Students

Table 1 presents the level of language learning strategies among senior high school students. The results show that the overall level of language learning strategies is very high ($M = 4.36$, $SD = 0.33$). This indicates that students frequently employ various strategies in supporting their language learning processes. The relatively low standard deviation suggests that the responses of the participants are closely clustered around the mean, reflecting consistent perceptions among the respondents regarding their use of learning strategies.

Among the six categories of strategies, social learning strategies obtained the highest mean score ($M = 4.41$), followed closely by memory strategies ($M = 4.40$) and compensation strategies ($M = 4.37$). These results suggest that students commonly rely on interaction with peers, collaborative learning activities, and memory-related techniques to support their understanding and retention of language concepts. The strong use of social learning strategies highlights the importance of communication and cooperation in the language learning process, which aligns with the view of Vygotsky that social interaction plays a significant role in cognitive development and learning.

Meanwhile, cognitive and metacognitive strategies ($M = 4.35$) and organization and evaluation strategies ($M = 4.33$) also obtained very high ratings. These findings indicate that students are actively involved in organizing information, monitoring their learning progress, and applying strategies that help them process language-related tasks more effectively. According to Oxford (1990), learners who use metacognitive and cognitive strategies are better able to regulate their learning processes and develop stronger language learning skills.

In addition, affective strategies ($M = 4.31$) also recorded a very high level, suggesting that students demonstrate awareness in managing emotions, motivation, and attitudes during language learning activities. The use of affective strategies may help learners maintain confidence and reduce anxiety when engaging in language-related tasks. These findings are consistent with recent research suggesting that strategic learning behaviors and self-regulated learning processes are associated with learners' engagement and motivation in language learning (Zhang & Zhang, 2022).

Overall, the findings indicate that senior high school students demonstrate a consistently high use of various language learning strategies. The results suggest that students actively utilize multiple approaches—including

social interaction, cognitive processing, and emotional regulation—to support their language learning. These findings are consistent with previous studies indicating that effective use of language learning strategies is associated with greater learner engagement and improved language learning experiences (Oxford, 1990; Dörnyei, 2001).

| Indicators | SD | Mean | Descriptive Level |
|--|-------------|-------------|-------------------|
| Memory Strategies | 0.32 | 4.40 | Very High |
| Cognitive and Metacognitive Strategies | 0.36 | 4.35 | Very High |
| Compensation Strategies | 0.36 | 4.37 | Very High |
| Organization and Evaluation Strategies | 0.35 | 4.33 | Very High |
| Affective Strategies | 0.37 | 4.31 | Very High |
| Social Learning Strategies | 0.32 | 4.41 | Very High |
| Total | 0.33 | 4.36 | Very High |

Table 1. Level of Language Learning Strategies

Level of Attitude toward Language among Senior High School Students

Table 2 presents the level of attitude toward language among senior high school students. The results indicate that the overall level of attitude toward language is very high ($M = 4.36$, $SD = 0.73$). This suggests that students generally demonstrate positive perceptions and appreciation of the Filipino language. Although the standard deviation indicates slight variation in the responses, the overall results show that students maintain consistently favorable attitudes toward the language.

| Indicators | SD | Mean | Descriptive Level |
|------------------------------------|-------------|-------------|-------------------|
| Cultural Realism | 0.71 | 4.40 | Very High |
| Respect for Language and Culture | 0.74 | 4.34 | Very High |
| Valuing the Importance of Language | 0.75 | 4.33 | Very High |
| Filipino as the National Language | 0.72 | 4.38 | Very High |
| Appreciation of FWL | 0.74 | 4.34 | Very High |
| Total | 0.73 | 4.36 | Very High |

Table 2. Level of Attitude toward Language

Among the indicators, cultural realism obtained the highest mean score ($M = 4.40$), indicating that students strongly recognize the role of language in reflecting cultural identity and social experiences. This finding suggests that learners perceive the Filipino language as an important medium for expressing cultural values and traditions.

Such recognition of language–culture relationships has been emphasized in language learning literature, which highlights the importance of cultural awareness in developing positive language attitudes.

The indicator Filipino as the national language also obtained a high mean score ($M = 4.38$), suggesting that students acknowledge the significance of Filipino as a unifying language within the national context.

This may reflect students’ awareness of the role of language in national identity and communication across diverse communities. Previous studies have also reported that learners’ attitudes and language anxiety may

influence motivation and performance in second language learning contexts (Botes et al., 2022; Teimouri et al., 2022).

Similarly, respect for language and culture ($M = 4.34$) and appreciation of Filipino as a world language (FWL) ($M = 4.34$) both recorded very high levels. These findings suggest that students value the Filipino language not only as a cultural symbol but also as a medium of communication in broader contexts. Learners' appreciation of language may contribute to their willingness to engage in language learning activities and communication practices.

Meanwhile, valuing the importance of language ($M = 4.33$) also demonstrated a very high level, indicating that students recognize the relevance of language learning in their academic and social lives. Previous research suggests that learners who perceive language learning as meaningful and valuable are more likely to demonstrate positive attitudes toward language use and learning (Gardner & Lambert, 1972).

Overall, the findings suggest that senior high school students demonstrate strong and positive attitudes toward the Filipino language across multiple dimensions. These results indicate that learners recognize the cultural, social, and communicative significance of the language in their daily lives and educational experiences. Such positive attitudes toward language learning are often associated with greater engagement and willingness to participate in language learning activities (Dörnyei & Ushioda, 2013).

Level of Language Exposure among Senior High School Students

Table 3 presents the level of language exposure among senior high school students. The results indicate that the overall level of language exposure is **very high** ($M = 4.35$, $SD = 0.33$). This suggests that students frequently encounter and use the language in various contexts of their daily lives. The relatively low standard deviation indicates that the respondents' experiences with hearing and using the language are generally consistent across the sample.

| Indicators | SD | Mean | Descriptive Level |
|--------------|-------------|-------------|-------------------|
| Home | 0.35 | 4.35 | Very High |
| Friends | 0.40 | 4.40 | Very High |
| School | 0.40 | 4.29 | Very High |
| Media | 0.34 | 4.36 | Very High |
| Total | 0.33 | 4.35 | Very High |

Table 3. Level of Language Exposure

Among the different contexts of exposure, interaction with friends obtained the highest mean score ($M = 4.40$), indicating that peer communication plays a significant role in students' opportunities to use the language. This finding highlights the importance of social interaction in language learning, as communication with peers may provide authentic opportunities for language practice and engagement.

Exposure through media also recorded a very high mean score ($M = 4.36$), suggesting that students frequently encounter the language through digital platforms, television, social media, and other forms of communication technology. Media exposure may provide additional opportunities for learners to encounter language in real-life contexts and reinforce their familiarity with linguistic expressions and usage.

Similarly, language exposure in the home environment ($M = 4.35$) demonstrates that students regularly encounter the language through family communication and everyday interactions. The presence of the language within the home context may contribute to learners' familiarity with the language and support the development of communicative competence.

Meanwhile, school-based exposure obtained a slightly lower but still very high mean score ($M = 4.29$). This result suggests that although students encounter the language in classroom settings, a substantial portion of their exposure also occurs outside formal educational environments. Such findings highlight the importance of both formal and informal learning environments in supporting language development.

Overall, the results suggest that senior high school students experience substantial exposure to the language across multiple contexts, including home, peer interaction, school, and media. Previous studies emphasize that frequent exposure to language in diverse contexts may support learners' familiarity with language structures and enhance their engagement in language learning activities (Dörnyei, 2001). The high level of exposure observed in this study suggests that students have multiple opportunities to encounter and use the language in meaningful situations. Exposure to language through digital learning environments and online interaction has also been found to support learners' motivation and engagement in language learning (Lee & Drajeti, 2023).

Level of Motivation in Language Learning among Senior High School Students

Table 4 presents the level of motivation in language learning among senior high school students based on two dimensions: integrative motivation and instrumental motivation. The results indicate that the overall level of motivation is **very high** ($M = 4.37$, $SD = 0.32$), suggesting that students generally demonstrate strong interest and engagement in learning the Filipino language. The relatively low standard deviation indicates that the responses of the participants are closely clustered around the mean, reflecting consistent perceptions among students regarding their motivation toward language learning.

| Indicators | SD | Mean | Descriptive Level |
|-------------------------|-------------|-------------|-------------------|
| Integrative Motivation | 0.33 | 4.36 | Very High |
| Instrumental Motivation | 0.33 | 4.38 | Very High |
| Total | 0.32 | 4.37 | Very High |

Table 4. Level of Motivation in Language Learning

Among the two dimensions, instrumental motivation obtained a slightly higher mean score ($M = 4.38$, $SD = 0.33$) compared with integrative motivation ($M = 4.36$, $SD = 0.33$). This result suggests that students may be motivated by practical and goal-oriented reasons, such as academic requirements, future career opportunities, and the functional use of language in communication. Instrumental motivation is often associated with learners' desire to achieve specific outcomes, including academic success or improved communication skills.

On the other hand, the very high level of integrative motivation indicates that students also demonstrate an interest in understanding and engaging with the language as part of their cultural and social identity. According to Gardner and Lambert's socio-educational model (1972), integrative motivation reflects learners' willingness to connect with the language community and appreciate the cultural dimensions associated with the language.

The results suggest that both instrumental and integrative motivations are present among the students, indicating a balanced motivational orientation toward language learning.

Previous studies have emphasized that learners who possess both types of motivation tend to demonstrate stronger engagement and persistence in language learning activities (Dörnyei & Ushioda, 2013). The high level of motivation observed in this study suggests that students recognize both the practical and cultural value of learning the Filipino language.

Overall, the findings indicate that senior high school students demonstrate a strong motivational orientation toward language learning across both integrative and instrumental dimensions.

These results highlight the importance of supporting students' motivation by providing meaningful learning experiences that connect language learning with both personal and practical goals.

Significant Influence of Language Learning Strategies, Attitude toward Language, and Language Exposure on Motivation in Language Learning among Senior High School Students

Table 5 presents the results of the multiple regression analysis examining the relationships among language learning strategies, language attitude, language exposure, and students’ motivation in language learning. The overall regression model is statistically significant ($F = 1,366.482, p < .001$), indicating that the predictor variables collectively show a significant association with students’ motivation in language learning.

| Motivation in Language Learning | | | | |
|--|-----------|---------|----------|-------------|
| (Variables) | <i>B</i> | β | <i>t</i> | <i>Sig.</i> |
| Constant | .189 | | 2.817 | .006 |
| Language Learning Strategies | .845 | .880 | 6.905 | .000 |
| Language Attitude | -.647 | -.706 | -6.238 | .000 |
| Language Exposure | .762 | .802 | 13.309 | .000 |
| R | .982 | | | |
| R ² | .965 | | | |
| ΔR | .964 | | | |
| F | 1,366.482 | | | |
| ρ | .000 | | | |

Table 5. Significant Influence of Language Learning Strategies, Attitude toward Language, and Language Exposure on Motivation in Language Learning

The results indicate that language learning strategies demonstrate a strong positive relationship with motivation ($\beta = .880, t = 6.905, p < .001$). This finding suggests that students who frequently utilize language learning strategies tend to report higher levels of motivation in learning the language. Effective use of learning strategies may help learners organize information, regulate their learning processes, and actively participate in language learning activities. Previous studies have emphasized that strategic learning behaviors are often associated with increased learner engagement and persistence in language learning tasks (Oxford, 1990; Dörnyei, 2001).

Similarly, language exposure shows a positive and statistically significant relationship with motivation ($\beta = .802, t = 13.309, p < .001$). This result indicates that students who encounter the language more frequently in various contexts—such as home, school, peer interaction, and media—tend to demonstrate higher levels of motivation in language learning. Exposure to language provides opportunities for authentic communication and familiarity with linguistic structures, which may contribute to learners’ interest and engagement in language learning activities.

Interestingly, language attitude demonstrates a negative but statistically significant relationship with motivation ($\beta = -.706, t = -6.238, p < .001$). This finding suggests that the relationship between language attitude and motivation in this model may be more complex than expected. One possible explanation is that certain components of language attitude—such as anxiety or perceived difficulty—may interact with motivational factors differently than positive perceptions of language value. Previous studies have also noted that attitudinal variables may operate in complex ways within structural models, particularly when multiple cognitive, affective, and contextual factors are examined simultaneously (Gardner & Lambert, 1972; Dörnyei & Ushioda, 2013). Therefore, the negative coefficient observed in the model should be interpreted cautiously and may reflect the multidimensional nature of language attitudes rather than a direct negative perception of the language itself.

The model summary statistics further indicate a very strong explanatory power of the regression model. The coefficient of determination ($R^2 = .965$) suggests that approximately 96.5% of the variance in students’ motivation in language learning is associated with the combined relationships of language learning strategies,

language attitude, and language exposure. This high value indicates that the variables included in the model account for a substantial proportion of the variability in motivation among the respondents.

Overall, the results highlight the importance of considering multiple cognitive, affective, and environmental factors when examining motivation in language learning. While language learning strategies and exposure demonstrate positive relationships with motivation, the role of language attitude appears to be more nuanced and may require further investigation in future studies.

Summary of Goodness of Fit Measures of the Three Generated Models

Table 6 presents the goodness-of-fit indices of the three structural models tested in this study to determine the model that best represents the relationships among language learning strategies, language attitude, language exposure, and motivation in language learning.

| Model | P-value (>0.05) | CMIN / DF (0<value<2) | GFI (>0.95) | CFI (>0.95) | NFI (>0.95) | TLI (>0.95) | RMSEA (<0.05) | P-close (>0.05) |
|-------|--------------------|--------------------------|----------------|----------------|----------------|----------------|------------------|--------------------|
| 1 | .000 | 6.173 | .855 | .888 | .882 | .800 | .479 | .000 |
| 2 | .000 | 4.774 | .867 | .893 | .895 | .894 | .394 | .000 |
| 3 | .357 | 1.397 | .954 | .979 | .987 | .953 | .025 | .910 |

Legend:
 CMIN/DF – Chi Square/Degrees of Freedom
 NFI – Normed Fit Index
 GFI – Goodness of Fit Index
 TLI – Tucker-Lewis Index
 RMSEA – Root Mean Square of Error Approximation
 CFI – Comparative Fit Index

Table 6. Summary of Goodness of Fit Measures of the Three Generated Models

The results indicate that Model 1 and Model 2 did not meet several of the recommended fit criteria. For instance, the chi-square to degrees of freedom ratios (CMIN/DF) for Model 1 (6.173) and Model 2 (4.774) exceeded the recommended threshold of less than 2.0, indicating poor model fit.

In addition, the values of the Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), and Tucker–Lewis Index (TLI) for these models were below the commonly accepted benchmark of 0.95. These results suggest that the first two models did not adequately represent the structural relationships among the variables included in the study.

In contrast, Model 3 demonstrated the most acceptable model fit based on the established SEM criteria. The CMIN/DF value of 1.397 falls within the recommended range, indicating a satisfactory level of model fit. Similarly, the goodness-of-fit indices for Model 3 show strong model adequacy, with GFI = .954, CFI = .979, NFI = .987, and TLI = .953, all of which exceed the recommended threshold of 0.95. Furthermore, the Root Mean Square Error of Approximation (RMSEA = .025) indicates a very good fit of the model to the data, as values below 0.05 suggest minimal model error.

The P-close value (.910) further supports the adequacy of Model 3, indicating that the model demonstrates a close fit to the population covariance matrix. Taken together, these indices suggest that Model 3 provides the most appropriate representation of the relationships among the variables examined in the study.

Based on these results, Model 3 was selected as the best-fitting structural model, as it satisfies the recommended fit index thresholds and demonstrates strong empirical support for the proposed relationships among language learning strategies, language attitudes, language exposure, and motivation in language learning.

Regression Weights of the 3 Generated Models

Table 7 presents the regression weights of the three generated structural models that examine the relationships between the exogenous variables—language learning strategies, language attitude, and language exposure—and the endogenous variable, motivation in language learning.

| Exogenous Variables to Endogenous Variables | | | |
|---|------------------------------|-------------------|-------------------|
| Model | Language Learning Strategies | Language Attitude | Language Exposure |
| 1 | 3.050*** | -4.162*** | 1.689*** |
| 2 | 0.332* | 0.296*** | 0.320* |
| 3 | 1.217*** | 0.585*** | -0.758* |

* p<0.05, ** p<0.01, *** p=0.000

Table 7. Regression Weights of the 3 Generated Models

In Model 1, language learning strategies ($\beta = 3.050, p < .001$) and language exposure ($\beta = 1.689, p < .001$) show positive and statistically significant relationships with motivation in language learning. These results suggest that higher levels of strategy use and greater exposure to language are associated with higher levels of students' motivation. In contrast, language attitude demonstrates a negative but statistically significant coefficient ($\beta = -4.162, p < .001$). This result indicates that the relationship between language attitude and motivation may be more complex than initially expected. One possible explanation is that certain dimensions of language attitude—such as language anxiety or perceived difficulty—may interact with motivational factors differently within the structural model.

In Model 2, all three variables show positive and statistically significant relationships with motivation. Language learning strategies ($\beta = 0.332, p < .05$), language attitude ($\beta = 0.296, p < .001$), and language exposure ($\beta = 0.320, p < .05$) are all associated with students' motivation in language learning. The results of this model suggest that when the structural relationships among the variables are adjusted, the attitudinal dimension may align positively with motivational outcomes.

In Model 3, which was identified as the best-fitting model based on the goodness-of-fit indices, language learning strategies ($\beta = 1.217, p < .001$) and language attitude ($\beta = 0.585, p < .001$) show positive and statistically significant relationships with motivation in language learning. However, language exposure demonstrates a negative but statistically significant coefficient ($\beta = -0.758, p < .05$). This finding suggests that the relationships among the variables may vary depending on the structural configuration of the model.

The variation in regression weights across the three models highlights the complex and multidimensional nature of motivation in language learning. Structural Equation Modeling allows the examination of multiple pathways among variables, and changes in model specification may influence the magnitude and direction of relationships. Therefore, the results should be interpreted as statistical associations within the structural model rather than direct causal relationships.

Overall, the findings suggest that language learning strategies, language attitudes, and language exposure are important factors associated with students' motivation in language learning. However, the differing coefficients across models indicate that these relationships may interact in complex ways, warranting further investigation in future research.

Best-Fitting Model of Motivation in Language Learning

Figure 2 presents the final structural model that best represents the relationships among language learning strategies, language attitude, language exposure, and motivation in language learning. Based on the goodness-of-fit measures, Model 3 demonstrated the most acceptable fit to the data, indicating that the proposed structural relationships among the variables are adequately represented by the model.

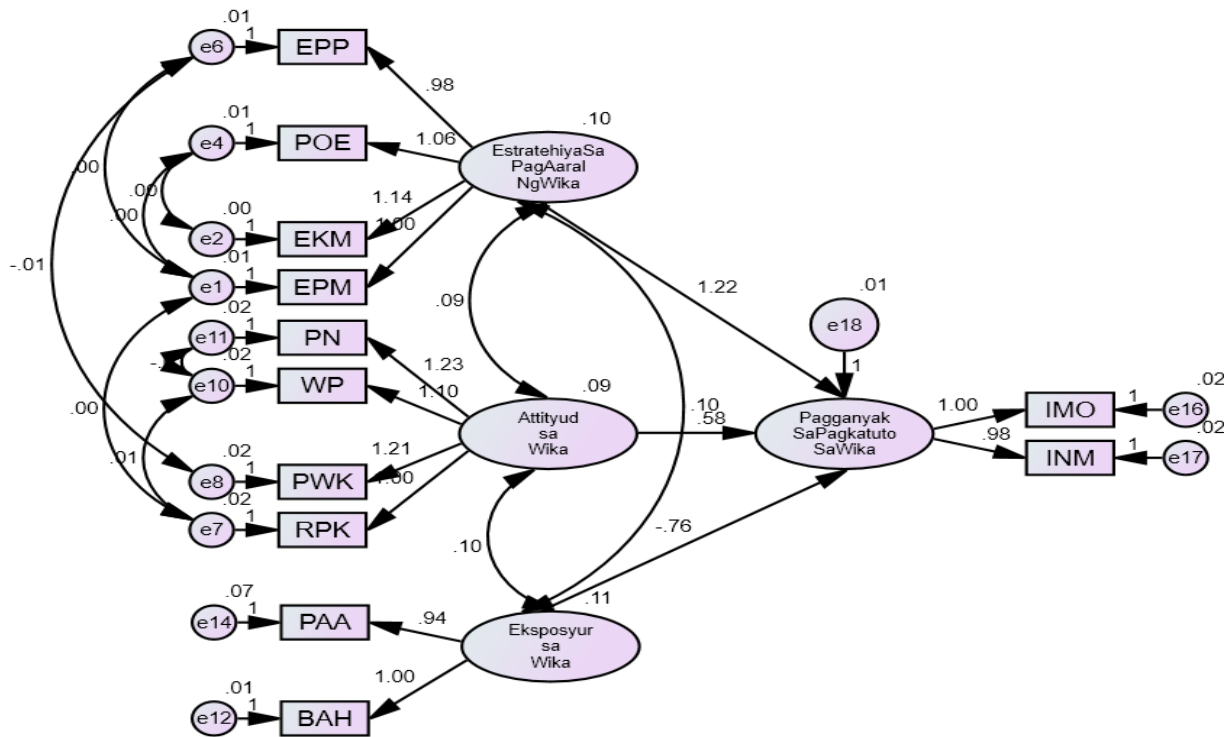


Figure 2. Best Fit Model

The fit indices suggest that the model provides a satisfactory representation of the observed data. The chi-square to degrees of freedom ratio ($CMIN/DF = 1.397$) falls within the recommended threshold of less than 2.0, indicating an acceptable level of model fit. Similarly, the values of the Goodness-of-Fit Index ($GFI = .954$), Comparative Fit Index ($CFI = .979$), Normed Fit Index ($NFI = .987$), and Tucker–Lewis Index ($TLI = .953$) exceed the commonly accepted criterion of 0.95, suggesting that the structural model adequately explains the relationships among the variables. In addition, the Root Mean Square Error of Approximation ($RMSEA = .025$) indicates minimal model error, while the P-close value (.910) suggests that the model demonstrates a close fit to the population covariance matrix.

The structural paths shown in the model indicate that language learning strategies, language attitude, and language exposure are associated with students' motivation in language learning. Among these variables, language learning strategies demonstrate a strong positive relationship with motivation, suggesting that students who actively apply various strategies in language learning tend to exhibit higher levels of motivational engagement. Language attitude also shows a positive relationship with motivation in the final model, indicating that learners' perceptions and dispositions toward the language may play an important role in shaping their motivation.

Meanwhile, language exposure also demonstrates a significant relationship with motivation, highlighting the importance of learners' experiences with language in different contexts, such as home, school, peer interaction,

and media environments. These results suggest that motivation in language learning may be associated with a combination of cognitive, affective, and environmental factors.

Overall, the final structural model provides empirical support for the interconnected roles of language learning strategies, language attitudes, and language exposure in understanding students' motivation in language learning. The findings highlight the multidimensional nature of motivation and emphasize the importance of considering both individual learning behaviors and contextual learning environments when examining motivation in language learning.

CONCLUSION AND RECOMMENDATION

The findings of this study indicate that Model 3 provides the most appropriate representation of the relationships among language learning strategies, language attitude, language exposure, and motivation in language learning among senior high school students. Based on the goodness-of-fit indices, the model demonstrated acceptable statistical fit, suggesting that the proposed structural relationships among the variables are adequately supported by the data.

The results highlight that language learning strategies and language exposure are positively associated with students' motivation in language learning, while language attitude also shows a significant relationship with motivation within the structural model. These findings suggest that students' motivation in learning the Filipino language may be understood through the interaction of cognitive factors (learning strategies), affective factors (language attitudes), and environmental factors (language exposure). Together, these elements contribute to shaping learners' engagement in language learning activities.

Based on these findings, several recommendations may be considered. Language teachers may continue to integrate communication-based and active learning strategies in classroom instruction, as these approaches may support students' engagement in language learning. Classroom practices that encourage collaborative learning, strategic language use, and reflective learning activities may help students apply effective learning strategies in meaningful contexts.

Educational institutions may also provide opportunities that increase students' exposure to language through various platforms, including school activities, media resources, and language-rich learning environments. Integrating cultural elements in instruction may further support students' appreciation of language and its role in identity and communication.

These efforts are aligned with the objectives of Sustainable Development Goal 4 (SDG 4): Quality Education, which emphasizes inclusive and equitable quality education and the promotion of effective learning opportunities for all learners. By fostering supportive learning environments and meaningful language learning experiences, educators may help strengthen students' engagement in language learning.

Future research may further examine additional variables that may be associated with motivation in language learning, such as language anxiety, self-efficacy, and academic performance. Expanding the study to other educational contexts and levels may also provide broader insights into how these factors interact in different learning environments.

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