Reading Habits, Study Skills and Student Engagement: A Causal Method to Language Learning Motivation

Norhata T. Panday [a++*] and Melissa C. Napil [a]

[a] *Professional Schools, University of Mindanao, Philippines.*

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Original Research Article

ABSTRACT

Aims: The aim of this study is to investigate the most suitable model for language learning motivation among students, utilizing structural equation modeling (SEM) as the foundational design for analyzing the relationships between reading habits, study skills, student engagement, and language learning motivation.
Study Design: A descriptive-causal design was employed for this study.
Place and Duration of Study: The study was conducted at the universities of region 12, using a stratified random sampling technique to select 400 students for the academic year 2023-2024.
Methodology: 400 students were selected, and data was collected through e-surveys using four questionnaires. The mean, standard deviation, Pearson product-moment correlation, and multiple regression analysis were utilized for data analysis. Reading habits, study skills, and student engagement were found to have a significant relationship with language learning motivation.

_____

[++]*Student;*
[#]*Faculty;*
Corresponding author: E-mail: norhatapanday@sksu.edu.ph;

Results: It has been discovered that all the variables are at a high level, meaning that the respondents frequently exhibit them. The reading habits, study skills, and student engagement have a significant relationship with their motivation to learn a language. The most suitable model for language learning motivation is Model 5, which indicates attitudes towards studying Filipino, motivational intensity, and the desire to learn Filipino. Factors and behaviors in reading are indicators of reading habits. Choosing the main idea, processing information, test strategies, study aids, concentration, and time management are skills in studying. The student engagement with behavioral, cognitive, and emotional indicators of engagement. This simply indicates that the reading habits, study skills, and student engagement play an important role in the motivation for learning among students in the universities of region 12.

Conclusion: The study found that reading habits, study skills, and student engagement are significant role in student language learning. The finding serves as a foundation for effective language teaching learning motivation for the first year education students. Motivations for language learning might entail high reading habits, study skills, and student engagement because frequent reading would enhance vocabulary and comprehension capabilities that would lead to enhancing academic performance and writing capabilities. Good study skills might promote the efficacy of information understanding and retention capabilities and could foster intrinsic motivation in students for more enthusiastic studies in languages.

1. INTRODUCTION

Language learning motivation remains to be one of the most influential factors in whether students succeed in achieving a new language. What has been recently established is that motivation affects the capacity of learners to be interested or even to persist with or stay put in language learning activity, thus also affecting the outcome of their academic performances. Now a days student facing lack of motivation to learn the Filipino language, such as difficulties with grammar and pronunciation, especially in comprehension [1]. When students lack motivation or have insufficient motivation, their learning is affected (Nolasco, 8), which causes difficulties for teachers [2]. One reason is the recognition of the English language as a key to a higher socio-economic status and better career opportunities, which is why students and parents value it more than Filipino. The lack of integration of meaningful and engaging content in education in the Filipino language further weakens students' motivation. This kind of mismatch leads students to feel that studying Filipino is a pointless task [3].

Currently, the role of motivation in language learning is crucial, especially for students, as it provides direction on how to learn [4]. In a conducted study, students with intrinsic motivation can achieve higher levels of learning [5]. The motivation to learn a language is a complex concept that can be influenced by various factors, such as personality, cultural background, social environment, and personal experiences. It is important for language teachers to recognize the significance of motivation in language learning and to incorporate motivational strategies into their teaching practices. This can lead to more effective and efficient language learning and a higher level of engagement and ownership in the learning process for students [6].

To address these issues, this study will use Structural Equation Modeling (SEM) to find the best fit model for language learning motivation. This study aims to give insights and solutions to improve language learning motivation among first year education students by examining the links between reading habits, study skills, and student engagement.

Reading is one of the bases of academic achievement and personal growth as it directly impacts cognitive potential, reading skills, and generally, educational performance. Indeed, studies reflect that the students who frequently read improve their vocabulary, and critical thinking, more important yet, have better academic results in all subjects. For instance, statistical analysis showed that reading behavior had a positive correlation with the grades of the learners and hence students with the culture of reading widely usually thrive in their academics [7]. Other research indicated that effective reading behavior leads to important skills, which

include flexibility and innovation, which aid the learners to solve complex challenging learning environment settings (Vuong et al., 2021).

Study skills are necessary for the achievement of success in academics; they directly relate to how well a student performs and their whole learning experience. Studies have shown a strong evidence that with effective study skills; students reach academic success due to the fact that those students who use strategic techniques of study tend to do better in studies [8]. In addition, research findings showed that students with better-stocked study skills have high self-efficacy and motivational levels, which add to their academic outcomes [9]. Furthermore, study skills training programs that exist and practiced at different places have been proved to bring qualitative improvements in academic achievements, which again confirms the importance of these skills towards a productive learning environment [10].

Previous study has postulates that higher education student engagement is a complex phenomenon that simultaneously deals with both intrinsic and extrinsic factors that significantly affect it. For instance, Mandernach et al.'s meta-analysis [11] points out that the students' learning ability, the behavior of the teacher, and the quality of a teacher-student relationship are extremely important for creating engagement. The study further observes that decision comfort and co-production behavior are significant drivers, meaning students who are supported and involved in the process of their learning are more active. In addition, a return to school after the coronavirus pandemic exposed other issues, for example, isolation and stress among the students and responds to the need for strategies that can motivate them more holistically and assist them in associating with a sense of belonging to environments of academic learning [12].

The study focuses on first year education students at region XII state universities and colleges in the second semester academic year 2023. In this study, the researcher give knowledge about langue learning motivation by investigating interaction of reading habits, study skills and student engagement on language learning motivation. The findings help student's engagement is much higher when he/she possesses more intensively developed study skills and good reading habits, increases motivation. To drive the impression deeper, the study highlights attention to the point of combining sound reading practices and study strategies into educational structures that can then foster more motivated, better-engaged learners-whose eventual production can then help in the creation of better language-acquisition outcomes.

The study will define the reading habits of the students based on the following indicators: reading behavior, frequency of reading, materials read, purpose of reading, and time allocated for reading. The level of study skills of the students will be determined with regard to proper time allocation, concentration, note taking,
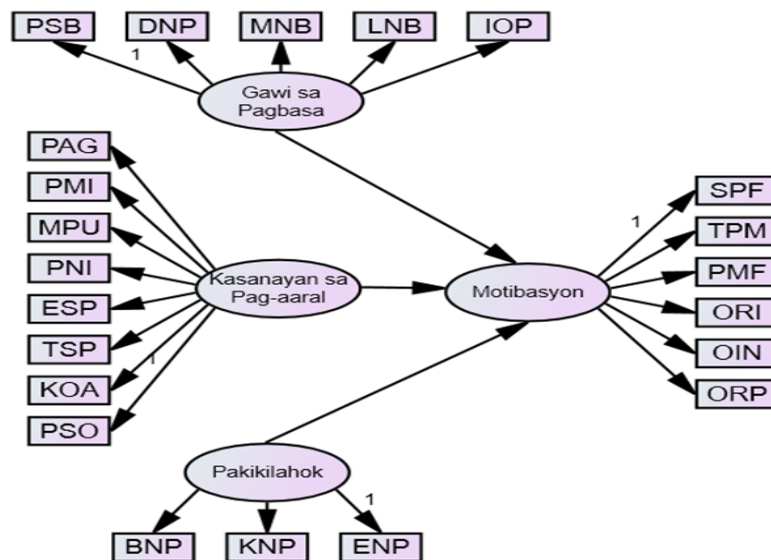

Fig. 1. Conceptual model showing the direct relationship of latent exogenous variables

test strategies, information processing, behavior, reading, and writing. It also intends to assess the level of student participation on the emotional engagement, cognitive engagement, and behavioral engagement of the students. Further, it seeks to identify motivation in language learning aspects namely attitudes towards studying Filipino, intensity of motivation, desire for learning Filipino, integrative orientation, instrumental orientation, and needs orientation. This research aimed to determine the significant relationship between reading attitude, study skills, student engagement, and motivation in learning a language. It will consider both the collective and individual effect of reading behavior, study skills, student participation, and motivation in language learning. Finally, it attempts to find out which model of motivation is best fit for language learning.

The conceptual framework of this study between reading behavior, study skills, student engagement, and motivation in language learning can be seen.

The researcher would like to discover significant correlations between reading habits, study skills, student engagement and language learning motivation. Mostly, it seek to explain the combined and distinct influence of reading habits, study skills student engagement on language learning motivation. In this way, students will get interested in language learning. This can be helpful to other researchers who are into the same kind of study. It can be a basis for the said study and, in the process, be developed in the outcome of their studies.

2. MATERIALS AND METHODS

2.1 Research Design

The study used a quantitative causal research method, with Structural Equation Model (SEM) as tool for analysis. This method was chosen because it conveniently suited the collection of multiple kinds of quantitative data on reading habits, study skills, student engagement, and language learning motivation among first year education students. Causal research refers to an explanatory research that considers why and how relationships come about in terms of causation and effects. The method measures and describes the statistical associations of variables with differing scales. In establishing causation, the differences in the variables that are assumed to cause changes in

other variables are observed and then measured for the changes in these other variables [13].

Structural Equation Modelling is one of the more complex methods of data analysis, which defines a structure for the covariance between the observed variables, offering an alternative name of covariance structure modeling, thus providing more meaningful and accurate results. This is an advanced multivariate method to analyze multiple relationships simultaneously between variables [14].

The mean was utilized here in describing reading habits, study skills, student engagement, and motivation in language learning. It was also applied to measure the dispersion of a frequency distribution using the standard deviation. A Pearson Product Moment Correlation was used to find out whether there was a significant relationship between reading habits, study skills, student engagement, and motivation in language learning while multiple regression was applied to identify significant predictors of motivation in language learning.

Apart from that, a structural equation model is required in finding the best and most appropriate model. In analyzing factors, a factor analysis on latent variables which had proposed a cut-off value of 0.50, while Ullman and Bentler (2003) used 0.45 in modeling safety culture in construction. The notion behind testing, suggested by Savalei and Bentler in [15], is the dropping of features that have low correlations with other latent variables in the final SEM. The cut-off value to be put will depend upon the sample size but a range between 0.45 to 0.50 is most recommended. The model which was identified to best fit the organizational capability was also ascertained through this instrument (Ullman and Bentler 73-84).

Goodness of Best Fit Statistics for the Alternative Model through Analysis of Moment Structure (AMOS). To determine the fit model, all the presented key indicators must align with the following principles.

This study, appropriated research guidelines were essential to complete the research. The researcher would adhere to and follow all standards in conducting the study in accordance with the assessment protocol and standardized criteria, especially in the management of population and data, but not limited to that.

List 1. Summary of goodness of fit measures of the five generated models

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	7.449	.750	.814	.792	.792	.124	.000
2	.000	5.107	.810	.883	.859	.867	.099	.000
3	.000	4.381	.809	.904	.880	.891	.090	.000
4	.000	4.360	.810	.904	.880	.891	.090	.000
5	.107	1.242	.978	.997	.985	.995	.024	.997

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

Summarize all attachments properly, organizing the questionnaire forms as well as keeping in mind what aspects of ethics, such as data confidentiality, consent, and protection of participants involved in the study, have to do with the study, for instance. Once the submitted papers for approval were returned, the researcher was given a Certificate of Approval with UMERC Protocol No. UMERC-2023-524.

2.2 Research Respondents

The respondents of the study were 400 students from various universities in Region XII, out of a total of 656 who are officially enrolled in the Filipino subject for first education students for the Academic Year 2023-2024. They came from the University of Sultan Kudarat, General Santos, and North Cotabato. To determine the number of participants, the researcher used the RAOSOFT Sample Size Calculator which indicated 243, but a total of 400 participants were collected. Out of 400 participants, 100 are from School A, 100 from School B, 100 from School C, and 100 from School D.

This type of number is appropriately used in structural equation modeling, especially since the data is ordinal [16]. The respondents would be selected through stratified random sampling because the population is heterogeneous [17]. Since this is a proportional percentage, the number of respondents from the universities where the data was sourced is one hundred from various sections.

Their consent to participate in the conducted study is voluntary. Their participation must be authorized with a consent form signed by their parents. The participants also underwent an orientation to gain awareness of the information that would be requested from them related to the conducted study.

First-year college students studying outside the university were not participants in the study. Students who are not taking the Filipino subject and have not experienced motivation in learning the language did not participate in the conducted study. Volunteers who wish to participate but do not have their parents' consent, have not submitted a consent form, or are students who did not attend the orientation will not be allowed to participate in the conducted study. Students will be given the freedom to participate. Refusing to participate will not involve a lack of benefits and penalties. They can withdraw their participation at any time and not continue without any corresponding penalty. They cannot be stripped of their legal privileges, rights, and benefits simply for not continuing to participate in the conducted study.

2.3 Research Instrument

The instrument used in the reading habits study is from "Reading Habits and Their Influence on Academic Achievement Among Students at Asia Pacific International University" by Shameem Ahmed, which includes indicators such as reading attitude; frequency of reading; reading materials; purpose of reading; and time spent on reading. There are a total of thirty-eight items (38). Meanwhile, the study skills are derived from the Study Skill Checklist developed by the Cook Counseling Center at Virginia Tech, which includes indicators for time management, concentration, study aids, test strategies, information processing, motivation, selecting main ideas, and writing. There are a total of sixty-four items (64).

Furthermore, the student engagement comes from UHCL Counseling Services SSCB Suite 3103 (103) with indicators of emotional engagement, cognitive engagement, and behavioral engagement. It has a total of nine items (9). Meanwhile, the motivation for language

learning among students comes from Wang, Yan. "A Survey of the Foreign Language Learning Motivation among Polytechnic Students in China." Journal of Language Teaching & Research, 1.5 with indicators of attitudes towards learning Filipino, motivational intensity, desire to learn Filipino, integrative orientation, instrumental orientation, and requirement orientation. There are a total of twenty-nine items (29).

The four questionnaires used a 5-Point Likert Scale, with the highest description rated at 4:20-5:00, meaning that this reading habits, study skills, student engagement, and motivation in language learning is always demonstrated. A high description with a duration of 3:40-4:19, where reading habits, study skills, student engagement, and motivation in language learning are often demonstrated. It is just about average, with a score of 2:60-3:39, which means that occasionally, the reading habits, study skills, student engagement, and motivation for language learning are demonstrated. This indicates a ratio of 1:80-2:59, which is interpreted as rarely demonstrating reading habits, study skills, student engagement, and motivation in language learning. And the last is the lowest score of 1:00-1:79, which is interpreted as never demonstrating reading habits, study skills, student engagement, and motivation in language learning.

The questions were revised to include only those related to the study. The first draft was presented to the research adviser for comments and suggestions. To be valid, it was endorsed by six expert validators. Afterwards, the pilot testing was conducted using Cronbach Alpha and was reviewed by a statistician to ensure the validity of the items. Likert-type scales were also used to calculate and present the Cronbach's alpha coefficient for the internal consistency reliability of any scale or subscale used.

In the analysis of the data, summated scales or subscales were used instead of individual items. The reading habits has a Cronbach's alpha of .933, study skills of .950, student engagement of

.788, and motivation for language learning among students of .938, which indicates that they are all excellent. Additionally, the mean score obtained from the six validators is 4.41, which means that the questions are very good and valid.

3. RESULTS AND DISCUSSION

3.1 Reading Habits of Students

Table 1 shows the reading habits levels of first-year college students in universities in region 12, measured according to reading attitude, reading frequency, materials read, purposes of reading, and time spend on reading, with an overall mean score of 3.68 and a standard deviation of 0.53, indicating a high descriptive level, which means that reading attitude is often observed among students.

The highest reading practice is the indicator of the purpose of reading, with a mean score of 4.33 and a standard deviation of 0.61. This means that this reading activity is always observed in students. This also helps in gathering new knowledge and expanding the imagination of each student. Meanwhile, the materials read indicated and the time spend on reading have a moderate descriptive level with mean scores of 3.38 and 3.19, and standard deviations of 0.68 and 0.88. This means that this activity of reading is sometimes observed in students.

In the study by Franca and Napil [18], it is greatly beneficial for students to know the purpose of their reading, such as creating new ideas, discovering different perspectives, shaping their identity, improving their studies, and expanding their imagination. In relation to this, in the study by Pham [19], it was indicated that students' reading behavior and comprehension are interconnected. It has been proven that reading comprehension is successful when students' reading habits are developed, thus it is important to maintain this.

Table 1. Levels of reading habits

Indicators	SD	Mean	Descriptive Label
Reading Attitude	0.65	4.06	High
Reading Frequency	0.73	3.47	High
Materials Read	0.68	3.38	Moderate
Purpose of Reading	0.61	4.33	Very High
Time Spend on Reading	0.88	3.19	Moderate
Total	**0.53**	**3.68**	**High**

Furthermore, the highest level of description is the goal of reading, which aids in the acquisition of new knowledge and the expression of feelings in each student. This is supported by the study of Theriault [20], which shows the importance of students' reading goals as part of their learning. In relation to this, a study by Tegmark [21] revealed a significant potential among readers to engage in regular reading activities through careful and critical comprehension.

In this study, the time spent on reading is at a moderate descriptive level to enhance this indicator, supported by the research of Locher, Franziska, and Maximilian [22], which indicates that the time spent on reading and comprehension should increase as people age. The students' ability to comprehend what they read in the post-test significantly increased from the pretest. The results show that the students' reading skills have improved due to the allocation of sufficient time for reading [23].

3.2 Study Skills of the Students

Table 2 shows the level of study skills of college students in the universities of Region XII, measured according to time management, concentration, study aids, test strategies, information processing, motivation, selection main ideas, and writing, with an overall mean score of 3.93 and a standard deviation of 0.54. This means that the skill of studying is often observed in students.

The overall result of this table has a high descriptive level, indicating that the students agreed on the items related to their study skills across all indicators: time management, concentration, study aids, test strategies, information processing, motivation, selection of main ideas, and writing, with mean scores of 3.89, 3.93, 3.92, 3.97, 3.96, 3.83, 4.01, and 3.89,

and standard deviations of 0.68, 0.61, 0.64, 0.60, 0.62, and 0.67. This simply means that students often demonstrate their studying skills.

The high level of practice in terms of skill development is supported in the study by Stevens (365-379), providing initial support for the use of appropriate teaching methods to cultivate students' reasoning about the main ideas in the content and the structures that have not yet been taught. According to the study by Allred and Cena (27-35), it shows that students value the freedom to choose texts, which leads to an increase in their confidence and appreciation for reading. In addition, dedicating time in class for reading and discussing in literature circles has helped students have a more positive reading experience than others.

In this study, motivation has a low mean score of 3.83 with a descriptive level of high. When motivation and study skills are improved, the GPA they can achieve is higher (Dayupay et al., 2246-2264). In the study by Ritonga and Ramadhani (10-17), they discussed ways to enhance the quality of motivation in the learning of respondents: (1) learning materials should still be provided before assigning homework, (2) learning through face-to-face visuals, (3) the assignment of homework provided methods for work, (4) choose materials using language that is easy to understand.

3.3 Student Engagement

Table 3 presents the level of participation of first-year college students in the Universities of Region 12, measured according to emotional engagement, cognitive engagement, and behavioral engagement, with an overall mean score of 4.11 and a corresponding standard deviation of 0.60. This means that participation is often seen among students.

Table 2. Levels of study skills

Indicators	SD	Mean	Descriptive Label
Time Management	0.68	3.89	High
Concentration	0.61	3.93	High
Study Aids	0.64	3.92	High
Testing Strategies	0.60	3.97	High
Information Processing	0.62	3.96	High
Motivation	0.67	3.83	High
Selection of Main Ideas	0.62	4.01	High
Writing	0.62	3.89	High
Total	**0.54**	**3.93**	**High**

Table 3. Levels of student engagement

Indicators	SD	Mean	Descriptive Label
Emotional Engagement	0.86	3.89	High
Cognitive Engagement	0.67	4.27	Very High
Behavioral Engagement	0.67	4.31	Very High
Total	**0.60**	**4.11**	**High**

The study revealed that student engagement is highest in terms of cognitive and behavioral engagement, with mean scores of 4.27 and 4.31, both having a standard deviation of 0.67. This means that participation is always seen among students. Meanwhile, it is only high in emotional engagement with a mean score of 3.75 and a standard deviation of 0.86. This means that participation is often seen among students.

Tani, Mario, Mohamed Hani Gheith, and Ornella Papaluca [24], support the importance of analyzing and strengthening the reasons for participation (facilitators) while alleviating the reasons for non-participation (barriers) to enhance student involvement in academic activities. Whereas Perry [25] realized the importance of improving student participation through modern teaching methods with the help of teachers to create a genuine learning experience.

This study presents a framework that promotes the integration of emotional engagement and online learning. This conceptual paper emphasizes the analysis of teachers' roles in the emotional engagement of students and highlights the importance of emotional engagement of students in higher education [26]. The integration of emotional, cognitive, and behavioral strategies in online teaching can enhance student engagement and learning experiences in the virtual classroom [27].

3.4 Motivation in Language Learning of Students

The study presents the level of motivation in language learning among first-year college students taking Filipino in universities in region 12, measured according to the attitudes towards learning Filipino, motivation intensity, desire to learn Filipino, integrative orientation, instrumental orientation, and requirement orientation, based on an overall mean score of 4.13 with a standard deviation of 0.64. This means that motivation to learn the Filipino language is often seen among students.

The study also revealed that the highest integrative orientation and requirement orientation of the students were based on a total mean score of 4.23 and 4.34, with a standard deviation of 76 and 0.79. This means that students always show motivation learning the Filipino language. Meanwhile, their attitudes towards learning Filipino, intensity of motivation, desire to learn Filipino, and instrumental orientation have mean scores of 4.12, 3.95, 4.12, and 4.05, with standard deviations of 0.76, 0.70, 0.74, and 0.79. This means that motivation to learn the Filipino language is often seen among students.

The indicators that received the highest mean were need orientation and integrative orientation. The results of the study are related to the research of Vakilifard, Khaleghizadeh, and Golpour [28] that integrative and extrinsic motivation, in that order, are the most important forms of motivation among the participants. The study of Franca and Napil [18] also proved that there is a high level of motivation among senior high school students in learning the Filipino language, but it is important for students to use Filipino in their daily lives so that they can become more fluent in communication.

Table 4. Levels of motivation in language learning

Indicators	SD	Mean	Descriptive Label
Attitudes towards Learning Filipino	0.76	4.12	High
Motivation intensity	0.70	3.95	High
Desire to Learn Filipino	0.74	4.12	High
Integrative Orientation	0.76	4.23	Very High
Instrumental Orientation	0.79	4.05	High
Requirement Orientation	0.79	4.34	Very High
Total	**0.64**	**4.13**	**High**

The results of the study showed that every aspect of the psychosocial learning environment has a significant relationship with the intensity of student engagement. Three out of six aspects, which include work orientation, student participation, and teacher support, significantly influenced the intensity of student motivation [29]. The intensity of motivation served as a mediating factor and showed a slightly positive effect on the relationship between integrative orientation, instrumental orientation, and attitudes towards the learning situation in achieving success in the Chinese language [30].

3.5 Significant Relationship Between Reading Habits and Motivation in Language Learning

Table 5 shows a significant relationship between reading habits and language learning motivation among first-year students in universities in region 12, with a total r-value of .559 and a corresponding probability value of .000, which is much lower than the .05 significance level set in this study. In that case, the hypothesis is rejected and aligns with the alternative hypothesis that there is a significant relationship between reading behavior and the language learning motivation of students. The correlation coefficient r .559 indicates a strong relationship between reading behavior and motivation for language learning in the universities of region 12.

In a more precise explanation, the results show that all reading behavior indices have a significant relationship with language learning motivation, with a p-value lower than .05 and an overall r-value of .606 for reading purpose, .500 for reading behavior, .440 for reading frequency, .341 for reading material, and .282 for allocated reading time. It can be seen in Table 5 that all the indicators for each variable are interconnected. There is a significant relationship between the two variables.

In the study by Chaudhary [31], teachers need to focus on teaching students effective reading measures in order to appreciate the importance of second language reading practice. This will help change the negative perception of secondary language training and highlight its importance in achieving their dreams, becoming better readers, attaining high percentages in assessments, and meeting various educational and professional life needs.

Table 5. Significant relationship between reading habits and motivation in language learning

Reading Habits	Motivation in Language Learning						
	MPF	TPM	PMF	ORI	OYI	ORP	Overall
Reading Attitude	.545**	.462**	.494**	.370**	.319**	.346**	**.500**
	.000	.000	.000	.000	.000	.000	**.000**
Reading Frequency	.406**	.437**	.482**	.361**	.263**	.290**	**.440**
	.000	.000	.000	.000	.000	.000	**.000**
Materials Read	.294**	.339**	.331**	.293**	.251**	.222**	**.341**
	.000	.000	.000	.000	.000	.000	**.000**
Purpose of Reading	.454**	.474**	.538**	.556**	.481**	.557**	**.606**
	.000	.000	.000	.000	.000	.000	**.000**
Time Spend on Reading	.228**	.310**	.280**	.215**	.210**	.187**	**.282**
	.000	.000	.000	.000	.000	.000	**.000**
Total	**.496**	**.528**	**.550**	**.460**	**.392**	**.408**	**.559**
	.000	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**

Legend:

RA-reading attitude	*SMI-selecting main ideas*
RF-reading frequency	*WRI-writing*
MR-materials read	*EE-emotional engagement*
POR-purpose of reading	*CE-cognitive engagement*
TSOR-time spend on reading	*BE-behavioral engagement*
TM-time management	*ATLE-attitude towards learning English*
CON-concentration	*MI-motivational intensity*
SA-study aid	*DLE-desire to learn English*
TS-test strategy	*INTO-integrative orientation*
INFP-information processing	*INSO-instrumental orientation*
MOT-motivation	*RO-requirement orientation*

3.6 Significant Relationship Study Skills and Motivation in Language Learning

Table 6 shows the relationship between study skills and language learning motivation among students in universities in region 12, with a total r-value of .675 and a p-value of .000 (significant), which is much lower than the .05 significance level set in this study. In that case, the hypothesis is rejected and aligns with the alternative hypothesis that there is a significant relationship between study skills and motivation in language learning.

In presenting the details of the data on study skills, there is a significant correlation with the language learning of students in the universities of region 12, with an overall p-value below 0.5 and an r-value of .489 in time management, .538 in concentration, .580 in study assistance, .616 in test strategies, .644 in information processing,

.490 in motivation, .656 in selecting the main idea, and .606 in writing. As a result, there is a significant relationship between study skills and learning motivation among students in universities in region 12.

This result is supported by the findings of the study by Napil et al. [18], which showed a high level of proficiency in learning, writing methods, reading habits, and motivation in studying the Filipino language. Moreover, Nur'azizah, Rizqiyah, Budi Utami, and Budi Hastuti [32] also proved that there is a positive and significant relationship between students' critical thinking skills, motivation to learn, and academic success. There is a significant relationship between learning styles, methods of language learning, and students' motivation to learn English. The way of learning a language has a greater influence than learning styles [33].

Table 6. Significant relationship between study skills habits and motivation in language learning

Study Skills Habits	Motivation in Language Learning						
	MPF	**TPM**	**PMF**	**ORI**	**OYI**	**ORP**	**Overall**
Time Management	.353**	.469**	.446**	.434**	.377**	.394**	**.489****
	.000	.000	.000	.000	.000	.000	**.000**
Concentration	.431**	.481**	.487**	.467**	.435**	.419**	**.538****
	.000	.000	.000	.000	.000	.000	**.000**
Study Aids	.446**	.534**	.553**	.515**	.426**	.465**	**.580****
	.000	.000	.000	.000	.000	.000	**.000**
Testing Strategies	.503**	.539**	.579**	.524**	.478**	.491**	**.616****
	.000	.000	.000	.000	.000	.000	**.000**
Information Processing	.465**	.569**	.608**	.579**	.497**	.538**	**.644****
	.000	.000	.000	.000	.000	.000	**.000**
Motivation	.344**	.443**	.422**	.424**	.434**	.408**	**.490****
	.000	.000	.000	.000	.000	.000	**.000**
Selection of Main Ideas	.468**	.562**	.590**	.638**	.514**	.544**	**.656****
	.000	.000	.000	.000	.000	.000	**.000**
Writing	.401**	.551**	.533**	.546**	.530**	.502**	**.606****
	.000	.000	.000	.000	.000	.000	**.000**
Total	**.498****	**.608****	**.617****	**.603****	**.541****	**.550****	**.675****
	.000	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**

Legend:

RA-reading attitude	*SMI-selecting main ideas*	*RA-reading attitude*	*SMI-selecting main ideas*
RF-reading frequency	*WRI-writing*	*RF-reading frequency*	*WRI-writing*
MR-materials read	*EE-emotional engagement*	*MR-materials read*	*EE-emotional engagement*
POR-purpose of reading	*CE-cognitive engagement*	*POR-purpose of reading*	*CE-cognitive engagement*
TSOR-time spend on reading	*BE-behavioral engagement*	*TSOR-time spend on reading*	*BE-behavioral engagement*
TM-time management	*ATLE-attitude towards learning English*	*TM-time management*	*ATLE-attitude towards learning English*

3.7 Significant Relationship Between Student Engagement and Motivation in Language Learning

Table 7 shows a significant relationship between student engagement and language learning motivation among students in universities in region 12, with a total r-value of .677 and a p-value of .000 (significant), which is much lower than the .05 significance level set in this study. The overall correlation coefficient was shown to be .728 at a significance level of .05. This means that there is a significant relationship between student participation and motivation in language learning among students in universities in region 12.

Certainly, when the indicators of student participation are related to language learning motivation, it was found that all indicators are correlated, with cognitive participation at .719, behavioral participation at .622, and emotional participation at .489, and a p-value significantly lower than the .05 level of significance set. This indicates that student participation expresses a significant relationship with the motivation for language learning among students.

The important relationship between student participation and motivation in language learning has shown a positive significant correlation between self-regulated language learning and three dimensions of student engagement, namely behavioral, cognitive, and agentic (Wang, Jianhua, Xi Zhang, and Lawrence Jun Zhang,

950652). Related to the study by Ghelichli, Yahya, Seyyed Hassan Seyyedrezaei, and Zari Sadat Seyyedrezaei [34] on the main reasons for student participation and motivation in language learning, the main reasons include the teacher's behavior, the teacher's personality, and the students' behavior for student participation, as well as the teacher, self, and parents for motivation in language learning. The results are expected to be beneficial for language teachers, language learners, and material developers. In the study by Ghelichli, Yahya, Seyyed Hassan Seyyedrezaei, Ghasem Barani, and Omid Mazandarani [34], it was indicated that cognitive engagement is the primary predictor of motivation in language learning.

3.8 Significant Influence of Reading Habits, Study Skills, and Student Engagement on Language Learning Motivation

Table 8 shows the significant influence of reading habits, study skills, and student participation on the language learning motivation of first-year college students in universities in region 12, with an F-value of 189.228 and a corresponding p-value of 0.000, which is much lower than the .05 significance level set in this study. It can be observed from the data that the adjusted R^2 is .577, which means that 57.7% of the variation in students' motivation for language learning is explained by the regression. The difference of 42.3% may be related to other factors not included in the current study.

Table 7. Significant relationship between student engagement and motivation in language learning

Student Participation	Motivation in Language Learning						
	MPF	TPM	PMF	ORI	OYI	ORP	Overall
Emotional Engagement	.466**	.496**	.475**	.370**	.349**	.327**	**.489****
	.000	.000	.000	.000	.000	.000	**.000**
Cognitive Engagement	.538**	.615**	.634**	.659**	.566**	.626**	**.719****
	.000	.000	.000	.000	.000	.000	**.000**
Behavioral Engagement	.531**	.537**	.555**	.530**	.441**	.549**	**.622****
	.000	.000	.000	.000	.000	.000	**.000**
Total	**.617****	**.662****	**.665****	**.615****	**.539****	**.590****	.728**
	.000	**.000**	**.000**	**.000**	**.000**	**.000**	.000

Legend:
RA-reading attitude	*SMI-selecting main ideas*	*RA-reading attitude*
RF-reading frequency	*WRI-writing*	*RF-reading frequency*
MR-materials read	*EE-emotional engagement*	*MR-materials read*
POR-purpose of reading	*CE-cognitive engagement*	*POR-purpose of reading*
TSOR-time spend on reading	*BE-behavioral engagement*	*TSOR-time spend on reading*
TM-time management	*ATLE-attitude towards learning English*	*TM-time management*
CON-concentration	*MI-motivational intensity*	*CON-concentration*
SA-study aid	*DLE-desire to learn English*	*SA-study aid*

Table 8. Significant influence of reading habits, study skills, and student engagement on language learning motivation

Motivation in Language Learning				
Exogenous Variables	***B***	**B**	***T***	***Sig.***
Constant	.423		2.603	.010
Reading Habit	.163	.137	3.108	.002
Skills in Learning	.247	.209	3.753	.000
Students Engagement	.521	.494	10.128	.000
R	.760			
R²	.577			
ΔR	.574			
F	189.228			
P	.000			

Legend: RH- Reading Habits; SK- Study Skills; SE- Student Engagement

The presentation shows that the standard coefficient of student engagement is high, with a beta of .494. This indicates that the greatest influence on the language learning motivation of students in the universities of region 12 is compared to reading skills at .209 and reading habits at .137, in that order.

The results showed that the students have reading and learning skills [35] found a positive relationship between reading skills, learning, and academic success in English. However, the results are helpful, while reading and study skills have only a moderate impact on academic success. Related to the results of the study by Lasisi and Abdulmajeed [36], it showed a significant effect of training on learning skills and interventions across different abilities in the reading skills of students. The interventions have a positive effect on students' participation and reading activities, demonstrating the potential of appropriate educational strategies to enhance academic behaviors.

3.9 Generated Structural Models

This section presents the relationship of the variables in the study. Five generated models were tested for the most suitable language learning model for first-year college students. The models were evaluated based on the provided fit indices and served as the basis for accepting or rejecting the model.

The generated Structural Model 1, shows the direct relationship between endogenous and exogenous variables. In Table 9, the results show that student participation is a strong representation of their factors with the highest beta values of (.685), followed by reading behavior (beta = .274) and study skills (beta =

.188). Table 10 shows the exogenous variables, reading habits, study skills, and student engagement, and unexpectedly, the motivation for language learning among students with a P-value of >0.05. In addition, Table 9 shows that the goodness of fit results indicate that the model fit values do not fall within the range of the standards indicated by CMIN/DF < 2, GFI, CFI, NFI, TLI < 0.95, and RMSEA > 0.05 with P-Close < 0.05. It simply means that the model is not suitable for the data.

The generated Structural Model 2, expresses the differences between the exogenous variable of study skills and student engagement, as well as the causal association between exogenous and endogenous variables. As seen in Table 9, the data shows that student participation is strongly reflected by their primary factors, with the highest beta values (1.004), student reading habits (beta = .516), and study skills (beta = -.290NS). Meanwhile, Table 9 shows that the exogenous variable does not significantly affect the language learning motivation of students, with a P-value of > 0.05. GFI, CFI, NFI, TLI >0.95 with RMSEA <0.05 and P-Close >0.05. This means that the model demonstrates something very difficult.

The generated Structural Model 3, represents a change from earlier models, illustrating the relationship between students' study skills and reading habits, as well as the correlational relationships between reading habits and student participation in language learning motivation. As shown in Table 9, it demonstrates that student participation strongly reflects the factors, with the highest beta values (1.042) followed by reading behavior (beta = .342). The data also showed that the exogenous variable does not significantly affect the language learning motivation of students, with a P-Value of >0.05. The results of

the goodness of fit also showed that the values were not within the range of the criteria of the indices, as indicated by CMIN/DF<2, GFI, CFI, NFI, TLI <0.95, and RMSEA<0.05 with P-Close >0.05.

Generated in Structural Model 4, this is another change in the model from the earlier models that shows the lack of relationship among the three endogenous variables. However, the exogenous variables, reading habits, study skills, and student participation have a strong correlation with the endogenous variable, motivation for language learning. As shown in Table 9, it indicates that student participation is strongly influenced by their factors, with the highest beta value (1.048), followed by study skills (beta = .622) and reading habits (beta = .362). Aside from this, Table 9 shows that the exogenous variables do not significantly affect the motivation to participate of students, with a P-Value of >0.05. The results of the goodness of fit also showed that the values were not within the range of the criteria of the indices, as indicated by CMIN/DF<2, GFI, CFI, NFI, TLI <0.95, and RMSEA<0.05 with a P-Close >0.05. This means that the model did not meet the required standards.

3.10 Best Fit Model on Language Learning Motivation

The Fig. 2 explains the standard estimates of the five Developed Models. Model 5 illustrates the interrelationships among latent exogenous variables, reading behaviors, study skills, and student participation, as well as their direct causal relationship with the latent endogenous variable, which is the language learning motivations of students in universities in region 12. As seen in model 5, the best fit model for reading habits, study skills, and student engagement consists of exogenous variables that have a direct relationship with student participation motivation. The model also demonstrated the connection of these three exogenous variables. The study skills have a direct relationship with the reading habits and student's engagement. Furthermore, reading habits is also directly related to student engagement.

In addition, as shown in Fig. 2, two out of five indicators of reading habits, specifically reading attitude and reading frequency, remained

significant indicators of language learning motivation among first-year college students in universities in region 12. While study skills are five out of eight indicators, particularly information processing, test strategies, study aids, concentration, and time management, it was found that they affect students' motivation in language learning. On the other hand, the participation of students has maintained all three of its indicators, namely: behavioral engagement, cognitive engagement, and emotional engagement, which have a significant influence on the motivation for language learning among students. Based on the results, it can be inferred that the motivation for language learning among first-year college students in universities in region 12 is best grounded in reading habits measured in terms of reading behavior and frequency; study skills particularly information processing, test strategies, study aids, concentration, and time management; and student engagement, specifically behavioral engagement, cognitive engagement, and emotional participation.

In addition, the Generated Structural Model 5 shows the direct causal relationship of the exogenous variable to the endogenous variable. The endogenous variable of motivation in language learning among students was measured through attitudes towards studying Filipino, intensity of motivation, desire to learn Filipino, integrative orientation, and need orientation. However, the model only showed three out of its six indicators that remained stable as motivation for students' language learning, including attitudes towards studying Filipino, the intensity of motivation, and the desire to learn Filipino. The material indicators being read, the purpose of reading, and the allocated time for reading practices, motivation, selection of the main idea, and writing in study skills and integrative orientation, instrumental orientation, and needs orientation in the motivation for language learning of students have been recorded because their beta and P-values did not meet the desired outcomes.

This section presents an analysis of the relationships between reading habits, study skills, and student engagement in the motivation for learning the Filipino language among students. Five alternative models were tested to achieve the best-fitting model of organizational communication satisfaction.
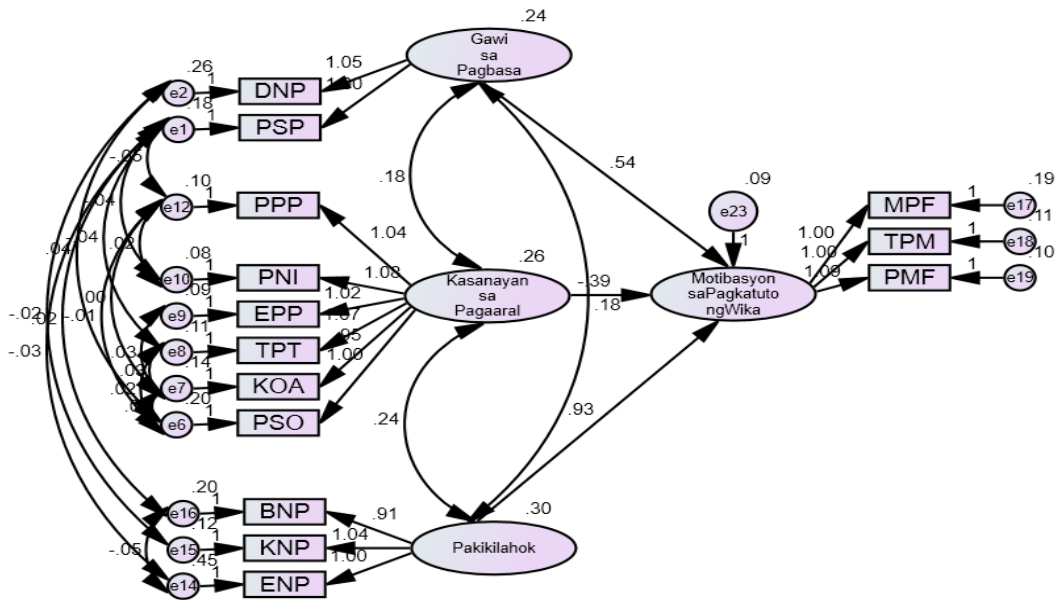
Fig. 2. Best fit model on language learning motivation of college students

Table 9. Goodness of fit measures of structural best fit model

Index	Criterion	Model fit value
P-value	> 0.05	.107
CMIN/DF	0 < value < 2	1.242
GFI	> 0.95	.978
CFI	> 0.95	.997
NFI	> 0.95	.985
TLI	> 0.95	.995
RMSEA	< 0.05	.024
P-Close	> 0.05	.997

Legend: CMIN/DF - Chi-Square/Degrees of Freedom; GFI - Goodness of Fit Index; CFI - Comparative Fit Index; NFI - Norm Fit Index; TLI - Tucker-Lewis Index; RMSEA - Root Means Square of Error Approximation; P-close - P of Close Fit

The analysis of Model 5 as shown using goodness of fit indices: Chi-Square divided by degrees of freedom (MIN/DF) is 1.242; the Normed Fit Index (NFI) is .985; the Tucker-Lewis Index (TLI) is .995; the Comparative Fit Index (CFI) is .997; the Goodness of Fit Index (GFI) is .978; the Root Mean Square Error of Approximation (RMSEA) is .024; and the P Close Fit (Pclose) is .997. The goodness of fit results for model 5 are highly acceptable because all the indices met the established standards against the obtained fit values of the model. These indices meet the requirements of goodness of fit measures. In addition, this is an indication that the development of model 5 is a very good fit model.

In identifying the most suitable model, all included indices must be within acceptable ranges. The value of chi-square/degrees of freedom should be less than 5 with a corresponding p-value greater than 0.05. The root mean square error approximation value should be less than 0.05, and its corresponding P close value should be greater than 0.05. Other indices such as the normed fit index, Tucker-Lewis index, comparative fit index, and goodness of fit index should be higher than 0.95.

4. CONCLUSION AND RECOMMENDA-TIONS

The use of the structural model approach strengthened this study as the analysis was aligned with the sequential process of the specific model. The results showed that reading habits, study skills, student engagement, and motivation for language learning are at a high level, indicating that the respondents in their first year at universities in region 12 agree with and

frequently demonstrate the specified items in this variable.

There is a significant relationship between reading habits variables, study skills, and student engagement in the motivation for language learning among students. Therefore, the null hypothesis was not accepted. Among the five examined models, model 5 has the most consistent index and indicates that the data is the most suitable. In other words, this was recognized as the most suitable model. The goodness of fit result for model 5 is highly acceptable because all the indices met the established standards against the obtained values of the most suitable model.

Thus, the study aligns with Vygotsky's Social Development Theory, as quoted from Saul's article (2024), which states that a child's cognitive development and learning abilities can be guided and supplemented through social interaction. Furthermore, language as an essential tool for communication, culture, and behavior is understood through language. It was also emphasized the critical role that language plays in the development of mental activities. This was proven by the results of the study that a high level of reading behavior, study skills, and student participation has a significant influence on the motivation to learn the Filipino language in the first year of college at universities in region 12.

Based on the results of the study, the researcher suggests the following recommendations. For reading habits, to achieve the highest level of motivation, it is essential to create an environment that fosters interest and enjoyment in reading. The use of meaningful materials such as age-appropriate books that align with their interests helps encourage them to read more often. In addition, the implementation of educational programs and interventions, such as "Every Child Reads," can provide the proper support and training needed to improve their reading skills and comprehension.

The use of collaborative learning strategies that encourage active participation and cooperation is important. The formation of groups based on skill levels helps to accelerate their learning and prevent knowledge gaps. Modern technologies and materials that align with their interests should also be included to make the learning process more engaging. Through the continuous support of teachers and parents,

their motivation and learning skills can be improved.

In the student's engagement, it is important to create a positive classroom environment that encourages active involvement. The use of interactive activities, such as discussions, games, and projects, can help maintain the interest and attention of every student. It is also important to value opinions and ideas so that they feel their contributions are significant. By consistently providing feedback and recognizing their efforts, students will be more motivated to engage and give their best selves.

We will also achieve the highest level of students' ability in language learning motivation by providing meaningful activities based on each student's interests and experiences. The support and guidance from teachers and parents provide inspiration and motivate one to strive harder. Through active participation and collaborative learning, the learning process will become more vibrant and effective.

Finally, conducting a study related to the motivation of students in learning the Filipino language to identify the most influential predictor in this area and serve as a basis for future research.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

CONSENT

As per international standards or university standards, respondents' written consent has been collected and preserved by the author(s).

ACKNOWLEDGEMENTS

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Napil MC, San Jose AE. Beliefs and strategies in Filipino language learning and academic performance of indigenous students. Int J Educ Policy Res Rev. 2020; 7(5):154-155.
2. Ariaso R. Factors of learning in Filipino and students' performance of secondary education in Eastern Visayas Philippines. PalArch J Archaeol Egypt/Egyptol. 2020; 17(6):8214-8216.
3. Ushioda E. Researching L2 motivation: Past, present and future. In: The Palgrave Handbook of Motivation for Language Learning. Lamb M, Csizer K, Henry A, Ryan S, editors. Cham: Palgrave Macmillan. 2019;661-682.
4. Ancheta A, et al. Language learning difficulties of selected foreign students in National University, Philippines. Int J Res. 2017;6(4):65-67.
   DOI: 10.5861/ijrsll.2016.1603.
5. Yangiboyeva MSK. The importance of the types of motivation in language learning. Curr Res J Pedagog. 2021;2(10):30-37.
6. LĂPĂDAT LC, LĂPĂDAT MM. The importance of motivation in foreign language learning. Sci Bull Politehn Univ Timisoara, Trans Mod Lang. 2023;22(1).
7. Hassan I, et al. Reading habits and their correlation with reading achievement among ESL learners in selected Malaysian secondary schools. Arab World English J. 2021;12.
8. Hassan A, et al. The relationship between study skills and academic performance of college students in the new normal environment. Libr Philos Pract. 2022;2022(1).
9. Motevalli H, et al. Study skills and academic performance: a correlational study. J Educ Psychol. 2021;113(3):1-15.
10. Shamooshaki M, et al. The impact of study skills training on academic achievement. Front Psychol. 2021;12.
    DOI: 10.3389/fpsyg.2021.1020269.
11. Mandernach BJ, et al. Decision comfort and student engagement in higher education. J College Student Dev. 2023;64(1):1-15.
    DOI: 10.1080/08841241.2023.2186558.
12. Hews D, et al. Disrupted student engagement and motivation: observations from online and face-to-face university learning environments. Front Educ. 2023;8:1320822.
    DOI: 10.3389/feduc.2023.1320822.
13. Ullman JB, Bentler PM. Structural equation modeling. In: Handbook of Psychology. 2nd ed. 2012;661.
14. Byrne BM. Structural equation modeling: perspectives on the present and the future. Int J Testing. 2001;1(3-4):327-334.
15. Bentler PM. SEM with simplicity and accuracy. J Consum Psychol. 2010;20(2):215-220.
16. Yuan KH, Wu R, Bentler PM. Ridge structural equation modelling with correlation matrices for ordinal and continuous data. Br J Math Stat Psychol. 2011;64(1):107-133.
17. Parsons VL. Stratified sampling. Wiley StatsRef: Statistics Reference Online. 2014;1-11.
18. Napil MC, Franca JL. Study skills, writing strategies and reading habits: A causal model in motivation in learning a language. Asian J Educ Soc Stud. 2022;40-59.
19. Pham UMN. The effects of reading habits on reading comprehension among EFL students at Van Lang University. Int J TESOL Educ. 2021;1(2):15-44.
20. Theriault JC. College students' conceptualizations of academic reading: What metaphors suggest about the important role of purpose in college reading and learning. J Adolesc Adult Lit. 2022;66(1):15-22.
21. Tegmark M, et al. What motivates students to read at school? Student views on reading practices in middle and lower-

secondary school. J Res Read. 2022;45(1):100-118.

22. Locher F, Pfost M. The relation between time spent reading and reading comprehension throughout the life course. J Res Read. 2020;43(1):57-77.

23. Huda HN, Sulistyaningrum SD. The impact of self-directed learning on students' English reading comprehension ability. Proc English Linguist Lit. 2022;3:102-113.

24. Tani M, Gheith MH, Papaluca O. Drivers of student engagement in higher education: a behavioral reasoning theory perspective. High Educ. 2021;1-20.

25. Perry AM. Student engagement, no learning without it; 2022.

26. Prayogo A, et al. Students' emotional engagement in online classes: a conceptual framework. Int J Inf Learn Technol; 2023.

27. Pentaraki A, Burkholder GJ. Emerging evidence regarding the roles of emotional, behavioural, and cognitive aspects of student engagement in the online classroom. Eur J Open Distance E-Learn. 2017;20(1):1-21.

28. Vakilifard A, Khaleghizadeh S, Golpour L. The investigation of integrative, instrumental, intrinsic and extrinsic motivation of language learners in the foreign settings. J Engl Lang Teach Learn. 2021;13(27):417-443.

29. Dhaba TK. Psychosocial learning environments of English classes and students' motivational intensity in learning English language. 2023;433-437.

30. Hutagalung F, Chew FP, Ter TC. Motivational intensity as the mediator of orientation and attitudinal with the achievement of Chinese language among the preservice teachers. Int J Instr. 2020;13(4):937-956.

31. Chaudhary A. To investigate the relationship between reading habits and second language proficiency of EFL students: a classroom study. Int J Lang Linguist. 2020;7(1):79-88.

32. Nur'azizah R, Utami B, Hastuti B. The relationship between critical thinking skills and students learning motivation with students' learning achievement about buffer solution in eleventh grade science program. J Phys Conf Ser. 2021; 1842(1).

33. Barruansyah RT. The correlation between learning styles, language learning strategies, and English learning motivation of the sixth semester students of STIBA Persada Bunda. J-SHMIC. 2018;5(1):49-62.

34. Ghelichli Y, Seyyedrezaei SH, Barani G, Mazandarani O. The relationship between dimensions of student engagement and language learning motivation among Iranian EFL learners. Int J Foreign Lang Teach Res. 2020;8(31):43-57.

35. Abid N, Aslam S, Alghamdi AA, Kumar T. Relationships among students' reading habits, study skills, and academic achievement in English at the secondary level. Front Psychol. 2023;14:1020269.

36. Lasisi AK, Abdulmajeed KB. The impact of study skills training and multiple intelligence interventions on the reading habits of junior secondary school students. Int J Appl Guid Couns. 2024;5(1).

Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle5.com/review-history/125285