

The Mediating Effect of Language Skills Development in the Relationship of Vocabulary Learning Strategies and Motivation to Learn

Authors' contributions : This work was carried out in collaboration between both authors. Author Rochelle M. Andante designed the study, performed the statistical analysis, wrote the protocol, wrote the draft of the manuscript, managed the literature searches and discussed the paper. Author Marilou Y. Limpot gave advised and directions. Both authors read and approved the final manuscript.

Abstract

Aims: To determine if there is a relationship between motivation, vocabulary learning strategies, and language skills development among Senior high School students. To determine also the mediating effect of language skills development in motivation to learn and vocabulary learning strategies.

Study Design: Quantitative non-experimental design.

Place and Duration of the Study: The study was conducted among Senior High School students in Rizal Memorial College, Assumption College of Davao, and University of Mindanao during the school year 2022-2023.

Methodology: The respondents were 355 senior high school students from private schools in Davao City, Region 11, Philippines. The respondents were chosen using stratified random sampling. The data were collected using survey questionnaire.

Results: The overall results showed that the respondents had a moderate level of vocabulary learning strategies and high level of motivation and language skills development. It also showed a significant relationship between three variables: motivation to learn, vocabulary learning strategies, and language skills development. Results also showed that language skills development had a partial mediation in the relationship of motivation to learn and vocabulary learning strategies.

Conclusions: The high level of motivation to learn and language skills development indicates that motivation is already shown in students and developing their language skills is often manifested in them. However, the moderate level of vocabulary learning strategies indicates that students are not always using the strategies to improve their vocabulary. Thus, researcher recommends that teachers provide activities like mystery word, dictionary dig, digital vocabulary field trip and many more for students to use vocabulary learning strategies and enhance their interest in learning. More importantly, teachers should emphasize to students the importance of believing in themselves as stated in self-efficacy theory.

Keywords: language skills development, motivation in learning language, vocabulary learning strategies, Philippines.

1. INTRODUCTION

Low motivation is a common issue in all schools and one of the problems of the teachers inside the classroom. It is one of the factors that affects the academic performance of students [1]. Other reasons are environment, laziness, and difficulty in learning. It is a serious concern since students are losing focus and concentration in their studies [2]. Aside from lack of confidence and poor knowledge in grammar, communication skills are also a factor why students are demotivated [3].

It is important to increase the level of motivation of students since it is an essential indicator of learning [4]. It helps students face the challenges in school. Actually, motivation has different categories. It can be integrative and instrumental or intrinsic and extrinsic motivation. Integrative motivation is based on the desire of learners for successful communication and instrumental motivation emphasizes the use of learning a language. On the other hand, intrinsic motivation is defined as doing an activity because of personal enjoyment or satisfaction and extrinsic motivation is controlled by external factor such as rewards or punishment.

Therefore, this study attempts to explore if there is another factor such as vocabulary learning strategies and language skills development that influences the students' motivation to learn.

Vocabulary learning strategies plays a vital role in learning a language and increasing the level of students' motivation. Also, the strategies used to learn vocabulary teach the students to become responsible in their learning. These learners are considered to have good self-regulation skills [5]. It is an important skill in which students select the appropriate strategy that fits their learning style. However, the low motivation in learning vocabulary is also a major concern [6].

Meanwhile, aside from the relationship of vocabulary learning strategies and motivation to learn, vocabulary also plays an important role in language skills development. Language skills are important in our career and huge vocabulary is a big help especially in reading and listening. A study also confirms the relationship of speaking skills and vocabulary since learning vocabulary demands use and practice [7]. Similarly, shortage of vocabulary hinders mastery in oral communication.

Studies have also shown the influence of language skills development and motivation to learn. One of language skills is speaking. It is a basic skill that need to be possessed for effective communication [8]. However, there are several factors that affect the speaking skills of students such as fear and lack of vocabulary. Hence, students are demotivated to participate in interactive discussion.

Another language skill is reading and it has significant relationship in student's motivation. A high level of motivation helps the students in comprehending the text they are reading. Likewise, students are demotivated if they struggle in reading [9]. Therefore, it is a big help if teachers have different strategy that involves reading different texts.

Listening is also one of the important skills in communication. It is one's ability to interpret the messages they received. To effectively learn the language, one must master this skill [10]. But listening is a complex process since it starts from identifying the sounds to understanding the context of word. This process is important to thoroughly understand the speaker. Thus, a teacher must ensure the effectiveness and importance of authentic listening materials to maintain the students' level of motivation.

Another language skill is writing. It is the reflection of students learning as it allows students to communicate their ideas and

opinions through symbols or visual representations. As a result, it increases students' motivation to learn new things [11]. It is an opportunity also to student to check and improve their writings.

Having said that teaching is a complex process, teachers as professional educators must know the different strategies that fits the learning style and interest of students. Nevertheless, none of it are useful without the expertise of the teacher [12]. Moreover, it is expected that teachers provide opportunities to students for them to actively engage in classroom. Students show increased motivation when they are involved in different activities especially when it is important in their lives.

This study is anchored to Self-Efficacy Theory of Albert Bandura [13]. This theory refers to individual's belief in their capacity to do things and attain their objectives or produce specific performance. In addition, self-efficacy also pertains to individual's ability to control their motivation and behavior. As a result, a student with strong belief in themselves is most likely competent and succeed in particular situation.

Some theories that are also connected in Self-Efficacy Theory is the Self-Determination Theory and Cognitive Evaluation Theory. Self-Determination Theory focuses on individual's level of action based on their goal [14]. On other hand, cognitive evaluation theory is designed to explain the effects of external factors to internal motivation [15].

Furthermore, Tseng and Schmitt model of motivated vocabulary learning, also used in this study, is connected to the importance of motivation in learning vocabulary [16]. It also explains how activities affect the motivation of students.

This research has three variables that corresponds to the problem of the study, the vocabulary learning strategies, motivation to

learn, and language skills development as mediating variable.

The vocabulary learning strategies considered as part of general learning strategies in acquisition of second language have seven indicators according to Olga Kullikova; memory, dictionary, note-taking, guessing, activation, using technology, and affective [17]. The memory strategy refers to retaining new words and helping learners to associate it in new words. Looking up words in the dictionary helps improve the vocabulary as it is the easiest way to look for the meaning of the word. Taking notes of new words, one encounters is another effective way to remember that word. On the other hand, guessing strategy is usually needed when we encounter new word while reading or listening. A student guessed the meaning of the word using the context clues. In addition, a student who is prepared to learn new word by the help of activating the prior knowledge is using activation strategy. Technology also helps students broaden their vocabulary by connecting fun with online vocabulary games and affective strategy are vocabulary learning strategy that manage emotions as it has impact on learners.

Likewise, motivation plays an important role in learning language. It has four indicators; intrinsic value, self-efficacy, cognitive strategy, and self-regulated [18]. The intrinsic value refers to individual inner drive to pursue an activity for personal satisfaction. Having strong belief in his capacity is defined as self-efficacy while cognitive strategy focus on regulating thought process to achieve goals. Lastly, self-regulation is a process in which students monitor or guide their own motivation and behavior.

In this research, we used also the language skills development as mediating variable in the relationship of motivation to learn and vocabulary learning strategy. It has four

indicators according to Carol Griffiths' study; writing, speaking, reading, and listening [19]. Writing as an important part of communication is expressing ideas to written word. It is the ability to express message to well-constructed text. On the other hand, speaking is one's ability

to convey ideas verbally. The third language skill is reading. It is the ability of individual to decode, comprehend, and interpret the text. Similar to reading, listening is receiving information while communicating with others.

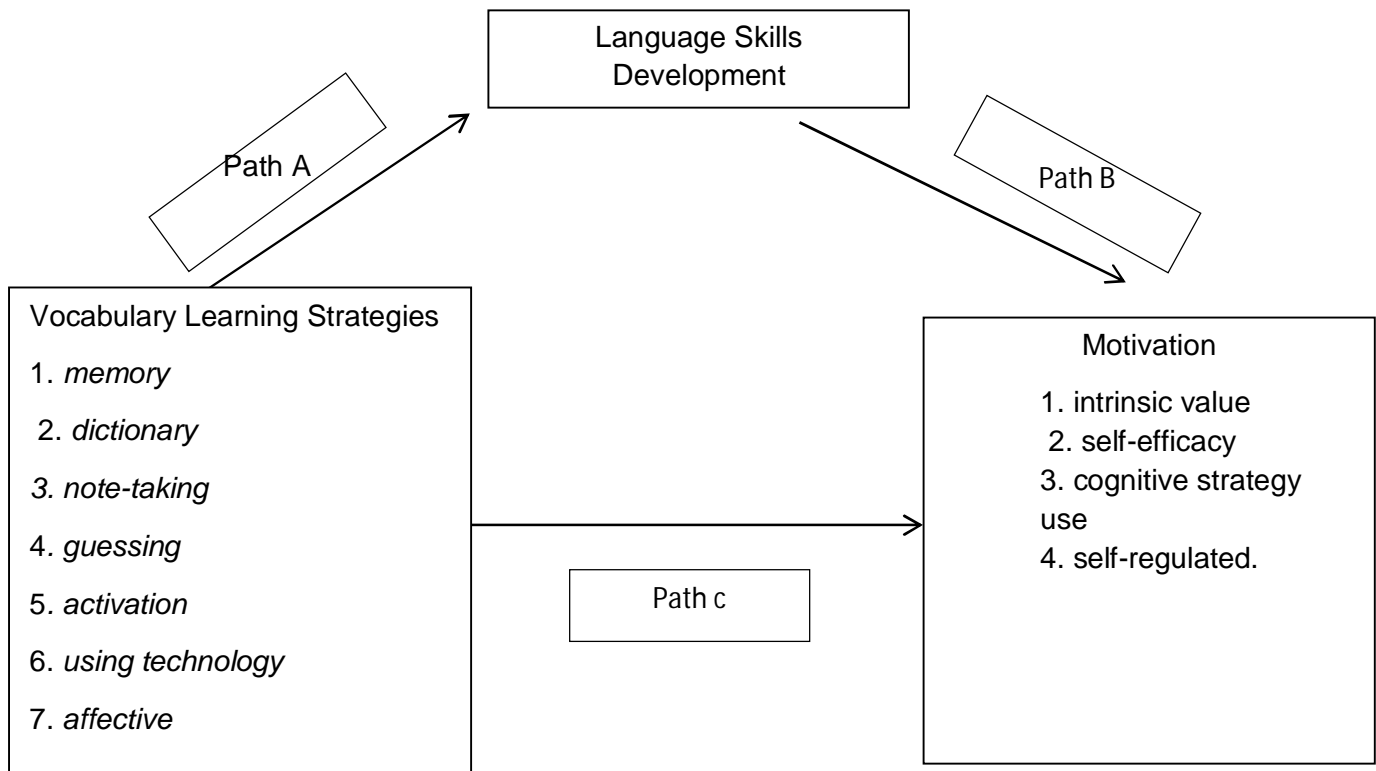


Figure 1: Conceptual framework of the study

The conceptual framework shows the relationship between (1) Vocabulary Learning Strategies and Motivation to Learn Language, (2) relationship between Vocabulary Learning Strategies and Language Skills Development, (3) relationship between mediating effect of Language Skills Development and Motivation to Learn Language, the mediating effect of Language Skills Development in the relationship of Vocabulary Learning Strategies and student's motivation to learn language.

In this research, we used four ways to identify the mediation of language skills development in vocabulary learning strategies and students' motivation to learn language. The path (a) shows the direct effect of vocabulary learning strategies and language skills development as mediating variable, path (b) shows the direct effect of language skills development on student's motivation to learn language, and path (c) shows the indirect effect of vocabulary learning strategies and student's motivation to

learn language using the language skills development as mediating variable.

There might be many studies about vocabulary learning strategies and students' motivation to learn language, vocabulary learning strategies and language skills development, but this study focuses on the relationship of vocabulary learning strategies and student's motivation to learn language and the mediating effect of language skills development. It is urgent to conduct this study since we need to consider the interest and learning of the students. Thus, whatever the result of this study will have a great help in increasing the level of student's motivation to learn language especially, Filipino.

The objective of this research is to present the mediating effect of language skills development on the relationship of vocabulary learning strategies and students' motivation to learn language. In specific, this study aims to answer the following questions: what is the level of vocabulary learning strategies of students according to: memory; dictionary; note-taking; guessing; activation; using technology; affective?, what is the level of students' motivation to learn language according to: intrinsic value; self-efficacy; cognitive strategy use; and self-regulated?, what is the level of students' language skills development?, to determine if there is no significant relationship between: vocabulary learning strategies and students' motivation to learn language; vocabulary learning strategy and language skills development; and language skills development and student's motivation to learn language based on 0.05 level of significance, and to determine if the language skills development as mediating variable has no significant in the relationship of vocabulary learning strategies and student's motivation to learn based on the 0.05 level of significance.

2. MATERIALS AND METHODS

2.1 Respondents

The study's respondent were the enrolled students in Senior High School in three private schools in Davao City, Region 11 for the school year 2022-2023. Out of 4528 Senior High Students, only 355 students were selected through stratified random sampling with Slovin 0.005 level of significance. The study's objective is to determine the level of vocabulary learning strategies, motivation to learn, and language skills development of students. Students that were included in the stratified random technique were students who agreed to be part of the respondents. Others who wished to back out were approved. If ever there were problems arising during the conduct of the study, the researcher automatically replaced the students. They were not obliged to answer the questionnaire given through survey questionnaire. Respondents came University of Mindanao, Rizal Memorial College, and Assumption College of Davao. Senior high school students that did not have Filipino subject, were not around during the conduct of study, and did not have interest to answer the survey questionnaire were not included in the study. During the data gathering, healthy protocols were followed.

2.2 Research Instrument

This study uses a downloaded questionnaire adapted from web sources and modified by the researcher with the help of 5 validators. The questionnaire was about vocabulary learning strategies, motivation to learn, and language skills development.

The first part of the questionnaire consists Vocabulary learning strategies by Olga Kullikova "Vocabulary learning strategies and beliefs about vocabulary learning: a study of beginning university students of Russian in the United

States" [17]. It has 44 items and seven indicators. The following are the indicators; memory, dictionary, note-taking, guessing, activation, using technology, and activation. Second is a study about motivation by Frauke Kubischta "Engagement and Motivation: Questioning students on study-motivation, engagement and study strategies" and has 40 items with four indicators, intrinsic value, self-efficacy, cognitive strategy use, and self-regulated [18]. The third part is language skills development by Carol Griffiths "Studying English: Language Skills Development" and has 40 items with 4 indicators, reading, listening, speaking, and writing [19].

During the questionnaire verification, the mean score was 4.6 which is very good. After the validation, the efficiency of the questionnaires was tested through pilot testing using Cronbach Alpha to assess its accuracy. The pilot testing was done and all items are reliable with an alpha Cronbach of greater than 0.7 which is a good result.

2.3 Research Design and Methodology

This research was conducted according to a quantitative non-experiment design. The motivation to learn is the dependent variable and vocabulary learning strategies and language skills development are the independent variables. In this study we used descriptive correlational survey and use quantitative data to analyze the relationship between two and more variables or discover the mediating effect of language skills

development in vocabulary learning strategies and motivation to learn. In addition, descriptive correlational method is design to describe the relationship between two variables. Thus, data gathering made by the researcher is best fit for the study.

After the questionnaire verification, data was gathered to secure a certificate from the university with some attachments like a certificate of appearance, and approval was given with UMERC Protocol No. UMERC-2022- 314. After such, data was gathered through survey questionnaire with a letter of consent for the pilot testing and afterward for the final data gathering to 3 private schools under Davao City, Region 11 in Senior High School students. The confidentiality and privacy of the respondents' answers are remained.

For the data analysis, some statistical tools were used, like getting the mean, to determine the level of vocabulary learning strategies, motivation to learn, and language skills development. Pearson r was also used to determine the significant effects of variables like vocabulary learning strategies and language skills development to motivation to learn. On the other hand, linear regression was used to know the influence of language skills development to other variables. In addition, linear regression is used to predict the value of variable based on the value of another variable. Moreover, path analysis is used in this study to know if the mediating variable is significant to the relationship of independent and dependent variable.

Chart 1. List of scale used, description, and interpretation of the data collected in the three variables of the study

Scale	Description	Interpretation
4.20-5.00	Very High	Vocabulary learning strategies, motivation to learn, and language skills development are always observed
3.40-4.19	High	Vocabulary learning strategies, motivation to learn, and language skills development are often observed
2.60-3.39	Moderate	Vocabulary learning strategies, motivation to learn, and language skills development are sometimes observed
1.80-2.59	Low	Vocabulary learning strategies, motivation to learn, and language skills development are rarely observed
1.00-1.79	Very Low	Vocabulary learning strategies, motivation to learn, and language skills development are never observed

Ethical considerations have been made that fit the research guidelines for the safety. The researcher followed standards for the protocol and management. The researcher chose this study because it's connected to her personal experience. In reaching a high level of academic performance, motivation of the students should be increased. For this reason, the researcher wanted to prove the study's significance. To the next batch of researchers, this study can be used as a guide or source that may establish the connection of the variables.

3. RESULTS AND DISCUSSION

3.1 Level of Vocabulary learning strategies of Senior High School Students

Table 1 shows the results of the study on the level of vocabulary learning strategies of Senior High School students of Davao City that have a total mean score of 3.38 means moderate, and a corresponding standard deviation of 0.465.

Though four of the indicators are high, the results remain moderate. Memory in terms of mean has 3.64, dictionary has 3.28, the note-taking strategies has 3.95, guessing strategies has 3.83, activation has 2.42, using technology has 2.09, and affective has 3.49.

It only shows that vocabulary learning strategies are sometimes observed in the students despite of its importance in learning language making vocabulary shortage as major concern [20]. Hence, the researchers recommend to use always the vocabulary learning strategies especially the use of dictionary, activation, and technology. The dictionary is very helpful in looking the meaning of a word and for students to use it, teachers can give activity like Play Mystery Word and Play Dictionary Dig. On the other hand, students can use activation strategy if teachers give them activity like KWL. Also, students may experience digital vocabulary field trip to broaden their vocabulary through the help of technology. In

addition, despite of having high mean score which means students often observed using the memory strategy, note-taking, guessing, and affective, still it is good to always use these strategies to learn new words. Thus, teachers play vital role in increasing the level of student's usage of these strategies. Teachers can use flash cards and encourage students to take note the new words they encountered. Also, to use the guessing strategy, teachers can give activities related to

reading and listening and let the students guess the meaning of unfamiliar words they read or listened. It is also important to give positive feedback everytime the students learned new words. However, it is also better if students reward themselves like relaxing after learning. Overall, vocabulary learning strategy is part of learning language and we cannot effectively communicate to others if we do not have enough vocabulary [21].

Table 1. Level of Vocabulary learning strategies of Senior High School Students

Items	SD	Mean	Description
Memory	0.565	3.64	High
Dictionary	0.532	3.28	Moderate
Note-taking Strategies	0.825	3.95	High
Guessing Strategies	0.727	3.83	High
Activation Strategies	0.493	2.42	Moderate
Using Technology to Study Vocabulary	0.420	2.09	Moderate
Affective	0.904	3.49	High
Overall	0.465	3.38	Moderate

3.2 Level of Motivation to learn of Senior High School Students

Table 2 shows the overall score in student's Motivation to Learn that ranges from 3.67-4.11 and has a total mean score of 3.92 means High. Also, the Standard Deviation score ranges from 0.469- 0.621. An indicator that has the highest mean score is Intrinsic Value, which has 4.11 followed by cognitive strategy use which has 4.05. The self-regulation also got a high level with a mean score of 3.84 and the lowest indicator is self-efficacy with a mean score of 3.67.

Motivation is the reason why an individual performs a certain task. It can be represented by

external or internal stimuli [22]. It is vital in the learning of students as it helps them to focus on their goal [23]. Having a High score in student's Motivation to Learn indicates that motivation is often observed in the students. Still, to increase their motivation to Very High level, teachers might give authentic activities to capture the interest or attention of students and therefore increase their intrinsic value. In addition, since self-efficacy defines as individual's belief in their capacity, teachers can encourage students to master their skill through the use of activities that help them to assess their skills. It is important also to have activities that trains students to control their minds and manage their behavior. Lastly, to increase the level of student's self-regulation, it is

necessary for students to become aware on their learning. Thus, giving feedback is essential. In general, it is significant to increase the student's

level of motivation to increase their level of learning achievement.

Table 2. Level senior high school student's motivation to learn

Items	SD	Mean	Description
Intrinsic Value	0.567	4.11	High
Self-Efficacy	0.621	3.67	High
Cognitive Strategy Use	0.524	4.05	High
Self-Regulation	0.521	3.84	High
Overall	0.469	3.92	High

a. Level of Language Skills Development of Senior High School Students

Table 3 shows the language skills development of senior high school students. From the table, scores range from 3.84 to 4.08 mean score and have an overall of 3.99 which means High. All of indicator got a High level which means developing the language skills is always observed to students. Speaking marks High with a 4.08 mean score, while listening got 3.94, the writing has 3.92 mean score, and reading got the lowest mean score of 3.84.

Reading, writing, listening, and speaking are macro skills necessary in learning second language and for that reason it is vital to increase the level of developing language skills. Hence, to

develop the reading, give time to read each day. It can help also in developing your writing skill aside from reviewing the grammar and spelling. On the other hand, to develop the listening skill one must pay attention to the speaker and consider eye contact. It is also important to have an open mind and provides feedback. Developing the speaking skills is similar to listening skill where one must listen carefully to native speaker. A student that wants to develop his speaking skills must expose himself in different activity that involves listening [24]. Also, it is essential to build vocabulary, pronounce the words correctly, practice, and build emotional intelligence.

Table 3. Level of language skills development of senior high school students

Item	SD	Mean	Description
Reading	0.617	3.84	High
Writing	0.569	3.92	High
Listening	0.569	3.94	High
Speaking	0.584	4.08	High
Overall	0.515	3.99	High

3.4. Analyzing the relationship between variables

Table 4 shows the relationship between variables, vocabulary learning strategies and student's motivation to learn, vocabulary learning strategies and language skills development, and language skills development and student's motivation to learn.

Result shows that vocabulary learning strategy has significant relationship with the student's motivation to learn having $r=0.698$, $p \leq 0.05$. It only supports the idea that vocabulary especially when it is learned through games can increase the motivation of students to learn (li).

In addition, the vocabulary learning strategies has significant relationship also to the language skills development. It shown on table having coefficient correlations of $r=.653$, $p \leq 0.05$. Hence, it only state that vocabulary learning strategies are important to acquire new words necessary for developing language skills [25]. Lastly, the language skills development as mediating variable has significant relationship to student's motivation to learn having a result of $r=0.695$, $p \leq 0.05$. It supports the idea that motivation is important in learning language as it serves as the main foundation of learning second language [26].

Table 4. Analyzing the relationship between variables

Pairs	Variable	Correlation coefficient	P value	Decision on Ho
IV at DV	Vocabulary learning strategies and motivation to learn	0.698	0.000	Reject
IV at MV	Vocabulary learning strategies and language skills development	0.653	0.000	Reject
MV at DV	Language skills development and motivation to learn	0.695	0.000	Reject

b. Analyzing the Mediation of Three Variables

Using path analysis, the result of path IV (vocabulary learning strategies to MV (language skills development); IV (vocabulary learning strategies) to DV (motivation to learn); and MV (language skills development) to DV (motivation to learn) is significant. Hence, the MV has partial mediation in the relationship of IV and DV.

It is also shown in the figure 2 that in very increase in Vocabulary Learning Strategies there is an increase of .062 unit in language skills development. In addition, in every increase of

unit in Vocabulary Learning Strategies, there is a 0.37 unit increase in Motivation to Learn. Also, in every unit increase in Language Skills Development, there is a 0.38 unit increase in Motivation to learn. Overall, based on the path IV-MV-DV, in every increased unit in Vocabulary learning strategy there is a 0.37 unit increase in Motivation to Learn which means that the level of student's motivation to learn can be increased with the help of vocabulary learning strategies. However, language skills development is needed. Thus, language skills development mediates the vocabulary learning strategies to increase the level of student's motivation to learn.

In general, the vocabulary knowledge is a big help to individuals that wishes to learn second language and increase their level of motivation. Therefore, one must realize what strategy he wants to use to learn new words. Also, language

skills have positive impact to students motivation since one way to motivate them is through close collaboration and communication [27].

Analyzing the mediation of three variables

IV = VOCABULARY LEARNING STRATEGIES
 DV = MOTIVATION TO LEARN
 MV = LANGUAGE SKILLS DEVELOPMENT

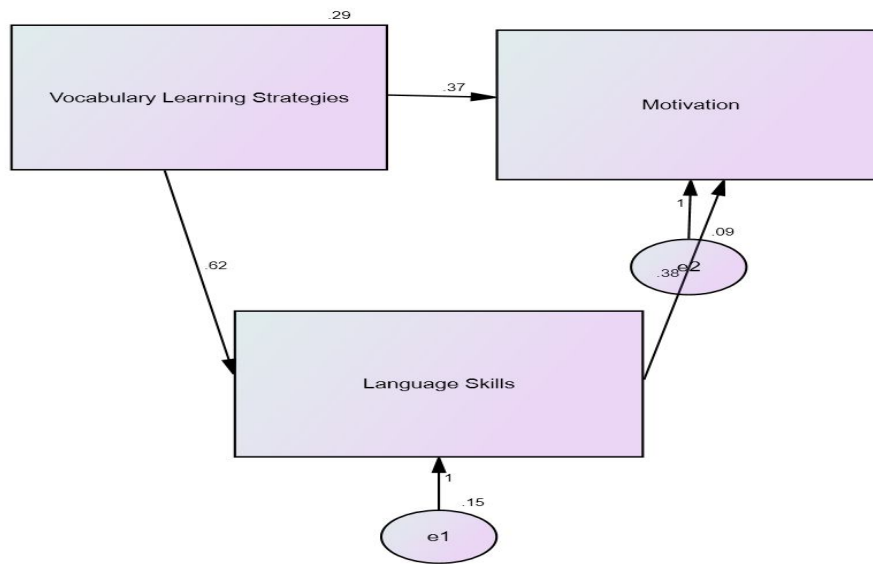


Fig. 2. Mediation Model

PARTIAL MEDIATION (WITH SIGN UNCHANGED)

	Estimate	S.E.	C.R.	P Label
OVMV <--- OVMIV	.622	.037	16.776	***
OVMV <--- OVMIV	.369	.038	9.768	***
OVMV <--- OVMIV	.379	.040	9.550	***

4. CONCLUSION

In conclusion, the results show a high level of motivation to learn and language skills development. Also, it shows moderate level of vocabulary learning strategies. There is also a significant relationship between the variables which resulted to rejection of hypothesis. The vocabulary learning strategies has significant relationship to motivation to learn having $r=0.698$, $p \leq 0.05$. Likewise, the vocabulary learning strategies has significant relationship to language skills development having a result of $r=.653$, $p \leq 0.05$. Lastly, the language skills development has significant relationship to motivation to learn with a result of $r=0.695$, $p \leq 0.05$. Moreover, the results shows that language skills development has partial mediation to the relationship of vocabulary learning strategies and motivation to learn. Thus, language skills development mediates vocabulary learning strategies to increase the level of student's motivation to learn.

Furthermore, the self-efficacy of Albert Bandura (1977), self-determination and cognitive evaluation of Deci and Ryan (1978) were emphasized in this study as it anchors on it. According to these theories, students have greater achievement in school if they believe in their capacity and skills. The model of motivated vocabulary learning by Tseng and Schmitt (2008) is also used as basis in this study as it shows relationship between motivation and vocabulary. Therefore, the results of this study support the theories that vocabulary learning strategies has significant relationship to student's motivation to learn. However, language skills development is needed as it helps the vocabulary learning strategies in increasing the student's motivation to learn.

In general, the researcher suggests that to increase the vocabulary learning strategies usage, teachers must give activities to students like digital vocabulary field trip, play dictionary dig, or play mystery word. Also, to develop the language skills, students can set time each day

to practice and master the speaking, reading, listening, and their writing ability. More importantly, to increase the level of student's motivation to learn, teachers can give activities to students that they may find exciting and useful to real life.

ETHICAL APPROVAL AND CONSENT

The researcher followed and complied with all the study criteria, following the assessment protocol and standardized measures. Voluntary Participation, Privacy and confidentiality, Informed consent process, Conflict of Interest (COI), Permission from Organization/Location, and Technology Issues were thoroughly followed as stipulated by the University of Mindanao Ethics Review Committee. Certification was issued to the UMERC researcher with the number UMERC-2022-314 for the implementation of the study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Wasyik, Torikhul, and Abdul Muhid. "The Urgency of Classical Learning Motivation in the Millennial Era: Al-Zarnuji's Perspective." *Nazhruna: Jurnal Pendidikan Islam* 3.3 (2020): 324-341.
2. Mauliya, Islahul, Resty Zulema Relianisa, and Umy Rokhyati. "Lack of motivation factors creating poor academic performance in the context of graduate English department students." *Linguists: Journal Of Linguistics and Language Teaching* 6.2 (2020): 73-85.
3. Dilshad, Muhammad, Munaza Nausheen, and Zia Ahmed. "Impact of students' motivation for learning English on their achievement at

- secondary level." *Pakistan Journal of Social Sciences (PJSS)* 39.2 (2019): 689-696.
4. Peng, Renzhong, and Rongrong Fu. "The effect of Chinese EFL students' learning motivation on learning outcomes within a blended learning environment." *Australasian Journal of Educational Technology* (2021): 61-74.
 5. Gorgoz, Seda, and Canses Tican. "Investigation of Middle School Students' Self-Regulation Skills and Vocabulary Learning Strategies in Foreign Language." *International Journal of Educational Methodology* 6.1 (2020): 25-42.
 6. Lai, Jung-Yu, and Li-Ting Chang. "Impacts of Augmented Reality Apps on First Graders' Motivation and Performance in English Vocabulary Learning." *SAGE Open* 11.4 (2021): 21582440211047549.
 7. Khan, Raja Muhammad Ishtiaq, et al. "The role of vocabulary knowledge in speaking development of Saudi EFL learners." *Arab World English Journal (AWEJ) Volume 9* (2018). Schiller, Emese, and Helga Dorner. "Factors influencing senior learners' language learning motivation. A Hungarian perspective." *Journal of Adult Learning, Knowledge and Innovation* (2021).
 8. Sihotang, Angela M., et al. "The Effective Way to Develop Speaking Skills." *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature* 9.1 (2021).
 9. Toste, Jessica R., et al. "A meta-analytic review of the relations between motivation and reading achievement for K-12 students." *Review of Educational Research* 90.3 (2020): 420-456.
 10. Alzamil, Jwahir. "Listening skills: Important but difficult to learn." *Arab World English Journal (AWEJ) Volume 12* (2021).
 11. Kristyanawati, Martanti Dwi, Sarwiji Suwandi, and Muhammad Rohmadi. "Improvement of Exposition Text Writing Motivation and Skills Through the Application of the Problem Based Learning Model." *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal* 2.2 (2019): 278-287.
 12. Kalimullina, Olga, Bulent Tarman, and Irina Stepanova. "Education in the context of digitalization and culture." *Journal of Ethnic and Cultural Studies* 8.1 (2021): 226-238.
 13. Bandura, Albert, and Nancy E. Adams. "Analysis of self-efficacy theory of behavioral change." *Cognitive therapy and research* 1.4 (1977): 287-310.
 14. Deci, Edward L., and Richard M. Ryan. "Self-determination theory." (2012).
 15. Deci, Edward L., and Joseph Porac. "Cognitive evaluation theory and the study of human motivation." *The hidden costs of reward: New perspectives on the psychology of human motivation* 149 (1978): 155-7.
 16. Tseng, Wen-Ta, and Norbert Schmitt. "Toward a model of motivated vocabulary learning: A structural equation modeling approach." *Language Learning* 58.2 (2008): 357-400.
 17. Kulikova, Olga. *Vocabulary learning strategies and beliefs about vocabulary learning: a study of beginning university students of Russian in the United States*. The University of Iowa, 2015.

18. Kubischta, Frauke. "Engagement and Motivation: Questioning students on study-motivation, engagement and study strategies." (2014).
19. Griffiths, Carol. "Appendix 1: Language Skills Development Strategy Questionnaire". *The Strategy Factor in Successful Language Learning: The Tornado Effect*, Bristol, Blue Ridge Summit: Multilingual Matters, 2018, pp. 212-214. <https://doi.org/10.21832/9781783099757-008>
20. Tahir, Mohd Haniff Mohd, et al. "The Application of Visual Vocabulary for ESL Students' Vocabulary Learning." *Arab World English Journal* 11.2 (2020): 323-338.
21. Gorgoz, Seda, and Canses Tican. "Investigation of Middle School Students' Self-Regulation Skills and Vocabulary Learning Strategies in Foreign Language." *International Journal of Educational Methodology* 6.1 (2020): 25-42.
22. Howard, Joshua L., et al. "A review and empirical comparison of motivation scoring methods: An application to self-determination theory." *Motivation and Emotion* 44.4 (2020): 534-548.
23. Wardani, Adetya Dewi, et al. "Student learning motivation: a conceptual paper." *2nd Early Childhood and Primary Childhood Education (ECPE 2020)*. Atlantis Press, 2020.
24. Safiyeh, Hadeel Abu, and Mohammed Farrah. "Investigating the effectiveness of flipped learning on enhancing students' English language skills." *English Review: Journal of English Education* 9.1 (2020): 193-204.
25. Alharbi, Adel M. "Building vocabulary for language learning: Approach for ESL learners to study new vocabulary." *Journal of International Students* 5.4 (2019): 501-511.
26. Mahmoodi, Mohammad Hadi, and Moslem Yousefi. "Second language motivation research 2010–2019: A synthetic exploration." *The Language Learning Journal* (2021): 1-24.
27. Ali, Bayad Jamal, and Govand Anwar. "Vocabulary Learning Strategies and Foreign Language Acquisition at Private Schools." *Ali, BJ, & Anwar, G.(2021). Vocabulary Learning Strategies and Foreign Language Acquisition at Private Schools. International Journal of English Literature and Social Sciences* 6.3 (2021): 163-173.