The Mediating Effect of Cognitive Performance on the Relationship between the Beliefs about Language Learning and English Language Attitude

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Abstract: The study was conducted to determine the mediating effect of cognitive performance on the relationship between the beliefs about language learning and English language attitude among 400 college students at three universities in Davao del Norte, and two universities in Davao del Sur, all private, were selected where the research used a quantitative and descriptive correlation with three sets of research questionnaires answered by the respondents. The research revealed a mediating effect of cognitive performance on the relationship between the beliefs about language learning and English language attitude. Additionally, a relationship was revealed between the beliefs about language learning and cognitive performance and English language attitude. It implies that the students' cognitive performance mediates their English language learning among college students. Furthermore, the study hopes to contribute to the knowledge that students' cognitive performance mediates the overall learning of the English language. This research hopes to make new knowledge and identify the factors in attitudes towards learning the English language and could help educators in the teaching-learning process of the language more effectively in developing new interventions.

Keywords: cognitive performance, mediating effect, beliefs about language learning, english language attitude, education, Philippines

I. INTRODUCTION

Learning English is a necessity because it is an international language, and when it comes to learning a second language, motivation is a critical aspect (Estliden 15). Students' learning the language is influenced by their attitudes this can determine whether or not they learn English in the required manner, and other aspects influence learners' attitudes toward learning English as a second language (Addisu 1). Additionally, school settings, classroom atmosphere, teachers, and family environment significantly impact learners' learning motivation and attitudes toward English language learning (Liu and Zhang 970). Thus, language learners' attitudes significantly impacted the language learning process and outcomes (Tódor and Dégi).

In the United Kingdom, there are several difficulties surrounding students' perspectives, such as reports of students strongly favoring native English variants. According to several studies, exposure to various English dialects and English language proficiency are linked to positive attitudes toward English as an International Language (Funada 533). Apart from this, learners' attitudes toward English as an international language were influenced by exposure to different forms of English and proficiency (536).

In Zamboanga, Philippines, research was conducted to determine the attitude towards English language learning where elementary education students took part and responded to the survey. The respondents' overall attitude towards English learning revealed that the respondents exhibited a positive attitude toward the attitudinal object. Moreover, the respondents were very positive about studying the language to become fluent in it. In addition, among the three aspects of attitude towards the English language, the respondents' most favored effectively (Somblingo and Alieto 39).

For these reasons, the researcher would like to examine the mediating effect of cognitive performance on the relationship between the beliefs about language learning and English language attitude. Although there have been existing studies about beliefs about language learning and English language attitude, these did not mention the association of cognitive performance or having the research with three variables. Along with this, there are no existing studies in Davao Region, so doing this research could add new knowledge and hope to identify the factors in attitudes towards learning the English language. Also, it could help educators in the teaching-learning process of the language more effectively in terms of developing new interventions or strategies, developing new methods, and crafting course objectives.

II. METHOD

In this chapter are depicted the various methods of the study, including research design, research locale, population and sample, research instruments used to measure constructs of interest, data collection procedures, statistical tools, and ethical considerations.

Research Design

This study used the descriptive-correlational research design. Descriptive research entails identifying characteristics of a phenomenon based on observation or investigating the relationship between two or more variables (Creswell as cited by Davis). A fact-finding study allows the researcher to examine participants' characteristics, behaviors, and experiences (Conner and Roberts). Additionally, correlational research is a quantitative non-experimental design in which the researcher uses correlational statistics to assess and characterize the degree of relationship between variables or sets of scores (Creswell as cited by Asenahabi 18).

Moreover, Creswell, cited by Chih-Pei and Yan-Yi (pp. 206-207), added gaps in the existing literature where the research is supported. Data gathering where arguments on the validity and statistical techniques collections and all methods are clarified. Thus, this study determines the mediating effect of cognitive performance on the relationship between the beliefs about language learning and English language attitude.

Research Locale

After careful thought and consideration, three institutions in Davao del Norte and two institutions in Davao del Sur, all private, were selected for the research. These private institutions in different regions were chosen because the study deals with the tertiary level courses, where learning English is still a challenge. Knowing the result would benefit the institutions where the research was conducted, all language teachers teaching in the locality where the research was conducted, and every institution where language is taught. It would greatly help the language teachers craft appropriate objectives and strategies in learning the language effectively.

Population and Sample

The research respondents were the 2nd to 4th-year students under the Bachelor of Secondary Education major in English program. Respondents for the study were planned and considered before they were chosen. After careful consideration and selection, chosen respondents were selected in three private institutions located in Davao del Norte and two private institutions located in Davao del Sur. Four hundred respondents were used in the study coming from in selected private institutions in Davao del Norte and Davao del Sur.

The researcher did not include public institutions in Davao del Norte and Davao del Sur. Additionally, Bachelor Secondary of Education majors in English who are in the first-year level were not included as respondents in the study's region. Unless the research has already been accepted, the respondents can withdraw the involvement without any penalty at any time. Given the situation, the participant may withdraw when he or she feels threatened or uncomfortable responding to the survey questionnaire.



Figure 2. Map of the study's locale

Research Instrument

Three sets of survey questionnaires were used to obtain the data from the respondents. The first set of questionnaires measured the belief about language learning using the Belief about Language Inventory, the second set of questionnaires measured the English language attitude, and the third set measured the cognitive performance of the respondents.

The three questionnaires were subjected to content validity and reliability analysis by expert validators to ensure the accuracy of measurements. External validators validated the survey instruments with expertise in social research and statistics. The validators' rating of the questionnaires resulted in a mean of 4. Minor revisions were done following the recommendations and suggestions to improve some contents and statements in contextualizing the instruments.

After revisions, pilot testing was conducted for a preliminary survey with 30 respondents. Next, the researcher presented the result to the statistician, where the reliability and validity of the content were confirmed. The results from the three sets of questionnaires using Cronbach Alpha revealed that the independent variable, beliefs about language learning, obtained the result of 0.715, the dependent variable, 0.923, and the mediating variable, cognitive performance 0.776, respectively. The actual survey was then conducted through

Google form documents to the chosen private institutions in Davao del Norte and Davao del Sur.

Range of Means	Descriptive Level	Interpretation
4.20 - 5.00	Very High	This means that students strongly agree with the items relating to English language attitude.
3.40 - 4.19	High	This means that students agree with the items relating to English language attitude.
2.60 - 3.39	Moderate	This means that students are uncertain with the items relating to English language attitude items.
1.80 - 2.59	Low	This means that students disagree with the items relating to English language attitude.
1.00 – 1.79	Very Low	This means that students strongly disagree with the items relating to English language attitude.

Consequently, to evaluate the level of cognitive performance, the following scale was used.

Range of Means	Descriptive Level	Interpretation
4.20 - 5.00	Very Extensive	This means that the students strongly agree with the items relating to cognitive performance.
3.40 - 4.19	Extensive	This means that the students agree with the items relating to cognitive performance.
2.60 - 3.39	Moderately Extensive	This means that the students are uncertain with the items relating to cognitive performance.
1.80 - 2.59	Less Extensive	This means that the students disagree with the items relating to cognitive performance.
1.00 – 1.79	Not Extensive	This means that the students strongly disagree with the items relating to cognitive performance.

Moreover, to analyze the beliefs about language learning, the means were used to interpret using the scale below.

Range of Means	Descriptive level	Interpretation
4.20 - 5.00	Very high	This means that the students strongly agree with the items relating to the beliefs about language learning.
3.40 - 4.19	High	This means that the students agree with items relating to the beliefs about language learning.
2.60 - 3.39	Moderate	This means that the students are uncertain with the items relating to the beliefs about language learning.

1.80 - 2.59	Low	This means that the students disagree with the items relating to the beliefs about language learning.
1.00 - 1.79	Very low	This means that the students strongly disagree with the items relating to the beliefs about language learning.

Data Collection

Before the data collection, the researcher asked permission to change the research title since the school where the previous research was supposed to be conducted refused due to the data privacy act. Due to this, the researcher decided to write a letter to change the title and was immediately approved.

The next step was to undergo several processes like searching and downloading three appropriate standardized questionnaires that match the variables of the new study. After appropriate sets of standardized questionnaires were carefully selected and considered, the researcher then presented the questionnaires to the research adviser and was advised to validate the questionnaires.

Subsequently, the questionnaires were then validated by experts who recommended some revisions to contextualize each item. After three sets of questionnaires were validated, the researcher wrote a letter to change the respondents and immediately approved.

The researcher then wrote a letter to the five institutions where the research was conducted. Following the approval, the three sets of questionnaires for Beliefs About Language Learning, English Language Attitude, and Cognitive Performance were sent through Google form to five selected private institutions located in Davao del Norte and Davao del Sur.

Afterward, responses from respondents were collected until they reached the required number of responses. They were compiled and tallied carefully and thoroughly to ensure the accuracy of the data collected from the respondents. After collecting the required number of responses, the raw data tallied were then submitted for statistics and data analysis.

Statistical Tools

The following statistical tools were utilized for a more comprehensive interpretation and analysis of the data.

Mean was used to measure cognitive performance, beliefs about language learning, and English language attitude.

Pearson Product Moment Correlation was utilized to determine the relationships of cognitive performance, beliefs about language learning, and English language attitude. **Multiple Regression Analysis** was used to measure the influence of the beliefs about language learning and English language attitude.

Medgraph using Sobel z-test was employed to determine the mediating effect of cognitive performance on the relationship between the beliefs about language learning and English language attitude.

III. RESULTS

The data obtained from the study respondents were presented, analyzed, and interpreted in this section based on the previously stated research objectives. The order of discussions: level of beliefs about language learning; level of English language attitude; level of cognitive performance; the relationship between beliefs on language learning and cognitive performance; relationship between cognitive performance and English language attitude; relationship of beliefs on language learning and English language attitude; and mediation analysis results.

Level of Beliefs about Language Learning

Shown in Table 1 is the result of the level of beliefs about language learning with an overall mean of 3.92 with a descriptive level of *High* and interpreted as students agree with the items relating to beliefs about language learning. The result shows *motivations and expectations* with the highest mean of 4.18 with a descriptive level of *High*. This is followed by the *nature of language learning* with a mean of 4.07 with a descriptive level of *High*, followed by *learning and communication strategies* with a mean of 3.92 and the descriptive level of *High*, and *foreign language attitude* came next with a mean of 3.79 with a descriptive level of *High*. On the other hand, the lowest mean of all indicators is *difficulty in language learning* with a mean of 3.64 with a descriptive level of *High*.

Table 1. Level of beliefs about language learning					
Indicators	SD	Mean	Descriptive Equivalent		
Foreign language attitude	0.990	3.79	High		
Difficulty of language learning	0.849	3.64	High		
The nature of language learning	0.844	4.07	High		
Learning and communication strategies	0.898	3.92	High		
Motivations and expectations	0.697	4.18	High		
Overall score	0.893	3.92	High		

Level of Cognitive Performance

Shown in Table 2 is the level of cognitive performance with an overall mean of 3.81 and a descriptive level of *Extensive*. Of the indicators, *flexibility* had the highest mean of 4.02 with a descriptive level of *Extensive*, followed by *self-perception* with a mean of 3.96 and a

descriptive level of *Extensive*, followed by *attention* with a mean of 3.75 and a descriptive level of *Extensive*, and *thinking* with a mean of 3.71 and a descriptive level of *Extensive*. The indicators *memory* had the lowest mean score of 3.61 with a descriptive level of *Extensive*.

Level of English Language Attitude

Shown in Table 3 is the weighted means of each criterion for level of English language attitude, with a grand mean of 3.95 and a descriptive level of *High*. The results revealed that the *affective dimension* with the highest mean of 4.23 and a descriptive level of *Very High*. This was followed by *the cognitive dimension* and a mean of 3.87 with a descriptive level of *High*, and the *conative dimension* with the lowest mean of 3.76 with a descriptive level of *High*.

Table 2. Level of cognitive performance				
Mediating Variable	SD Moan Descriptive Faulyalant			
Memory	0.890	3.61	Extensive	
Attention	0.897	3.75	Extensive	
Flexibility	0.859	4.02	Extensive	
Self-perception	0.773	3.96	Extensive	
Thinking	0.918	3.71	Extensive	
Overall score	0.891	3.81	Extensive	

Significance of the Relationship between the Beliefs about Language Learning and English Language Attitude

Shown in Table 4 is the result of the test on beliefs about language learning and English language attitude. The relationship was tested at the 0.05 level of significance, as reflected in the hypothesis. The overall r-value of .573 with a p-value of <0.05 signified the rejection of the null hypothesis. It means there is a significant relationship between cognitive performance and English language attitude. It shows that cognitive performance is correlated with English language attitude.

Significance of the Relationship between the Beliefs about Language Learning and Cognitive Performance

Shown in Table 5 is the result of the test of the relationship between beliefs about language learning and cognitive performance. The relationship was tested at the 0.05 level of significance, as reflected in the hypothesis. The overall r-value of .375 with a p-value of <0.05 signified the rejection of the null hypothesis, meaning, a significant relationship existed between beliefs about language learning and cognitive performance. It also showed that the beliefs about language learning are correlated with cognitive performance.

Table 3. Level of English language attitude					
Indicators SD Mean Descriptive Equivalent					
Cognitive dimension	0.778	3.87	High		
Affective dimension	0.736	4.23	Very High		
Conative dimension	0.882	3.76	High		
Overall score	0.825	3.95	High		

Significance of the Relationship between Cognitive Performance and English Language Attitude

Shown in Table 6 is the result of the test of the relationship between cognitive performance and English language attitude. The relationship was tested at a 0.05 level of significance, as reflected in the hypothesis. The overall r-value of .384 with a p-value of <0.05 signified the rejection of the null hypothesis. It meant a significant relationship between cognitive performance and English language attitude. It also showed that cognitive ability is correlated with English language attitude.

On the Mediating Effect of Cognitive Performance on the Relationship between the Beliefs about Language earning and English Language Attitude

Shown in Table 7 is the regression analysis on cognitive performance on the relationship between the beliefs about language learning and English

 Table 4. Significance of the relationship between the beliefs about language learning and English language attitude

Pair	Variables	Correlation Coefficient	p-value	Decision
IV and MV	Belief about language learning and English language attitude	0.573	0.000	Reject

language attitude. The data in this table were used as input to the medgraph. As evident in the study of Baron and Kenny (1986), as cited by Bananuka, Juma et al. (91), there are three steps to be met for a third variable to be acting as a mediator. Presented in Table 8 were categorized as Steps 1 to 3. Step 4 is the final step. In Step 1 (Path c), belief about language learning as the independent variable significantly predicts English language attitude, the dependent variable. Then, step 2 (Path a) beliefs about language learning significantly predict cognitive performance, the mediator. Consequently, in step 3, cognitive performance significantly predicts English language attitude. Following step 4, the combined effect of beliefs about language and cognitive performance on English language attitude is significant.

As a matter of triangulation, further mediation analysis through medgraph (Jose, 2003 cited by Samdani and Yameen 131) is warranted, involving the Sobel-z Test to assess the significance of mediation effect. If the effect of language learning on the English language attitude becomes non-significant at the final step in the analysis, complete mediation will be achieved. It means all of the effects are mediated by the mediating variable.

Table 5. Significance of the relationship between the beliefs about language learning and cognitive performance					
Pair	Variables	Correlation coefficient	p- value	Decision	
IV and MV	Beliefs about language learning and cognitive performance	0.384	0.000	Reject	

If the regression coefficient is substantially reduced at the final step but remains significant, only partial mediation is obtained. It means part of the beliefs about language learning is mediated by cognitive performance; however other parts are either direct or mediated by other variables not included in the model. In this particular case, the level of beliefs about language learning on English language attitude is weakened as shown in the lowered beta value after controlling cognitive performance, showing a still significant relationship that implies a partial mediation.

Using the Sobel Z-test, the partial mediation region is not sufficiently large. The result revealed that the mediating effect of cognitive performance translates to a more conservative impact in terms of the English language attitude of the second year to fourth-year college students.

In addition, the three paths highlighted in the model are supported by the principles of the Classical Multiple Regression Model, which revealed the level of linear relationship among the three variables. Applying the principle of Multiple Regression is appropriate because the data has passed the preliminary analysis

Table 6. Significance of the relationship between cognitive performance and English language attitude						
Pair	Variables	Correlation coefficient	p- value	Decision		
MV and DV	Cognitive performance and English language attitude	0.375	0.00	Reject		

by establishing a high level of correlation of .499. Apart from the assumption of normality of data, a high level of correlation among the variables is a requirement to do away with spurious models.

	Regression Results Table 7. The mediating effect of cognitive performance on the relationship between the beliefs about language learning and English language attitude					
Step	Beta Standard Beta					
Step 1	С	0.715	0.051	0.573		
Step 2	А	0.374	0.046	0.375		
Step 3	В	0.246	0.054	0.197		
Step 4	c'	0.623	0.054	0.499		

IV. DISCUSSION

This chapter presents the discussion of the data on cognitive performance, beliefs about language learning, and English language attitude of the study; in addition, conclusions and recommendations are also presented.

Level of Beliefs about Language Learning

Beliefs about language learning refer to the assumptions and perceptions towards learning the English language among second language learners that may affect language acquisition.

The first indicator, foreign language attitude has a descriptive equivalent of high and is interpreted as students agree; the items with a descriptive equivalent of very high starting from the highest are the following: the learner believes that everyone can learn to speak a foreign or second language, and a learner believes that Filipinos are good at learning a foreign or second language. Both are interpreted as students strongly agree.

Additionally, the items with a descriptive equivalent of high and are interpreted as the students agree are the following: the learner can speak English very well; the learner has the ability in learning foreign or second languages; the learner believes that it is easier for someone who already speaks a foreign or second language to learn another one. Consequently, the learner believes that people who speak more than one language well are knowledgeable. Subsequently, the learner believes that it is easier for him or her to learn a foreign language when he or she is a child than an adult.

To continue with, the items with a descriptive equivalent of moderate are the following: the learner is born with a unique ability that helps him or her learn a foreign language or a second language faster, and the learner believes that people who are good at Math and Science are not good at learning a foreign language. Both are interpreted as students being uncertain.

Moreover, the second indicator, the difficulty of language learning with a moderate descriptive equivalent, is interpreted as students are uncertain. The questions with a descriptive equivalent of high starting from the highest are the learner is trying to learn a complicated language, which was interpreted as the respondents agree. This was followed by the learner believing that they will ultimately learn to speak any language very well; the learner needs years to learn and use it fluently. Next, it is easier for the learner to read and write the language than to speak and understand it, and then followed by the learner can learn the language more effortlessly than others, and, it would be easier for the learner to speak and understand a foreign language with a descriptive equivalent of moderate and was interpreted as uncertain students.

The third indicator, the nature of language learning with a high descriptive equivalent, is interpreted as students agree. The item with a descriptive equivalent of very high and interpreted as students strongly agree is that the learner believes that the most important aspect of learning a foreign language is learning the vocabulary words with a descriptive equivalent of very high.

The learner also believes that it is vital to know about English-speaking cultures to speak English. The learner believes that the essential part of learning English is translating from the native language to English or from English to the native language. Furthermore, the learner believes that learning a foreign language is different from learning other academic subjects. The learner believes that he or she should learn English in an English-speaking.

While the fourth indicator, learning and communicating strategies has a descriptive equivalent of high and is interpreted as students agree. It was followed by the learner believes that he or she must repeat and practice a lot and learn to feel self-conscious speaking the foreign language in front of other people. With the same indicator, the items with a descriptive equivalent of high are: the learner believes if he or she is allowed to make mistakes, in the beginning, it will be hard to get of them later on, if the learner heard some people speaking in the foreign language he or she is trying to learn, would go up to them so that could practice speaking the language.

Next is the learner believes that is he or she needs to speak a foreign language with excellent pronunciation and accent. The learner believes that he or she must practice in the language laboratory. The learner should not say anything in a foreign language until they can say it correctly. The learner believes that it is all right to guess if one does not know a word in the foreign language with a descriptive equivalent of high and is interpreted as students agree.

Lastly, the fifth indicator, motivations and expectations with a high descriptive equivalent, are interpreted as students agree. The questions with a descriptive equivalent of very high and interpreted students strongly agree to start from the highest mean: the learner learns to speak the language very well, which will help him or her get a better job. The learner believes the people in the Philippines feel that it is essential to speak English. Then, the learner would like to learn English to get to know the native English speakers better and their cultures and is interpreted as students strongly agree. Next - the learner would like to have friends who can speak English very well. The learner believes that if they speak the language very well, they will have many opportunities to use it with a descriptive equivalent of high which is interpreted as students agree.

To sum up, the beliefs about language learning with have a descriptive equivalent of High, or respondents agree. The indicator that got the highest mean is motivations and expectations with a descriptive equivalent of high and is interpreted as students agree. On the other hand, the lowest mean indicator was the difficulty of language learning, a descriptive equivalent of high and interpreted as students agree.

The overall result about the beliefs about language learning supports the study of Alhamami, which mentioned that the learners have control over the learning process and their ability to acquire a language influences their motivation which improves their proficiency level; confirming that learners have a greater sense of control over their learning.

The result confirms the theory of Ariani and Ghafourania, stating that the beliefs toward learning the foreign language impact their success and failure in learning. Also, the study of Adithepsathit and Wudthayagorn mentioning students who have positive attitudes about language learning and with high motivation are more likely to be successful language learners. Learners can excel to the furthest language learning level by cultivating and keeping optimistic views, positive attitudes, and motivation. Furthermore, the finding of Alrabai also suggests that students' English self-efficacy was positively connected with their language achievement, demonstrating that learners' beliefs toward language learning influence their language performance.

Level of Cognitive Performance

Cognitive performance refers to learning, thinking, reasoning, remembering, problem–solving, decision-making, and attention are some of the mental abilities that fall under this category.

To sum up, the cognitive performance with a descriptive equivalent of high is interpreted as students agree. On the other hand, flexibility, the indicator has a descriptive equivalent of high and is interpreted as students agree. For memory, this indicator had a descriptive equivalent of high and is interpreted as students agree.

The current result backed Chalmers and Freeman, stating that children with low working memory capacity demonstrated inferior academic performance tests than their peers of the same age. Early diagnosis of working memory issues is thus a critical first step in decreasing the impact of a working memory deficiency on academic skill development. On the other note, it supports Shuja et al., where flexibility promotes successful self-study, which enables learners to seek knowledge at their own pace, and aids in the retention of information for extended periods. This process limits their potential to use adaptive learning flexibility and improve their learning results and convenience in learning.

It is noteworthy and justifiable to use strategies that influence lifestyle, academic, and cognitive performance that Mualem et al. stated in their study. Then, these teaching and learning methodologies could enhance cognitive performance and learner engagement. It is a set of teaching and learning approaches designed to increase student cognitive performance and motivate them to study more, become more self-assured, and foster satisfaction (Costa et al. 1).

Level of English Language Attitude

English language attitude refers to a combination of feelings, thoughts, and actions directed at a specific object, person, thing, or event. Attitudes are frequently formed due to personal experience or upbringing, and they can have a significant impact on behavior.

For first indicator, cognitive dimension, had a high descriptive equivalent, and interpreted as students agree – all questions with the descriptive equivalent of high are interpreted as students agree. The learner believes that learning in English makes it easier to grasp the ideas taught in class. Learning English will make lessons more interesting; the learner believes that it is possible to learn all primary subjects in English. Next, the learner believes that being good in English helps him or her study other subjects, and the learner believes that English is an expressive and descriptive language.

With the same indicator, learning in English will enable the learner to understand easily, and learning in English will enable the learner to express himself or herself clearly in class. After which, the learner could learn all the subjects entirely in English. The learner believes that all technical terms and expressions in subject areas can be easily translated into English. Next, the learner believes that giving a command in English is more effective than in any other language. The learner uses English in class, which enables him or her to express himself or herself confidently; finally, whether education in English will enable the learners' parents to participate in the education had a descriptive equivalent of high and is interpreted as students agree.

This is followed by the second indicator, the affective dimension, with a descriptive equivalent of very high and interpreted as students strongly agree. The questions with a descriptive equivalent of very high and interpreted as students strongly agree are the following starting from the highest mean are the learner wants to learn English more fluently and is interpreted as students strongly agree. It is followed by the learner feeling satisfied when the learner learns new vocabulary words in English, and the next is that the learner likes learning English. Next, the learner is interested in learning to speak fluently in English. The learner appreciates listening to songs in English; the learner then follows this feels proud when the learner he or she studies or learns about English; the learner finds studying English enjoyable. The learner is looking forward to the time the learner learns English subject in class.

With the same indicator, the questions with a descriptive equivalent of high are the learner likes when people talk to him or her in English, then the learner likes to get news in English. The learner loves studying other languages, followed by feeling more confident whenever the learner speaks in English with a descriptive equivalent of high and is interpreted as students agree.

Moreover, the last indicator, conative dimension, with a descriptive equivalent of High and was interpreted as respondents agree. The question with a descriptive value of very high and is interpreted as students strongly agree is that the learner study more about English to speak fluently.

With the same indicator, the questions with a descriptive equivalent of high and are interpreted as students agree the following starting from the highest mean: the learner responds in English when a person speaks to him or her in English, followed by the learner writes in English whenever making personal notes. The learner communicates in English whenever the learner sends messages thru email or text messages, the learner thinks in English, followed by the learner greeting people in English. Next, the learner prefers to use English when consoling a friend, followed by the learner giving commands or requests in English.

Further, this is followed by the learner preferring to write to friends and family in English. The questions with a descriptive equivalent of moderate and are interpreted as students are uncertain are the learner to speak in English to friends. The learner chose to speak to family members and relatives in English was the question and is interpreted as students are uncertain.

To sum this up, the English language attitude got a descriptive equivalent of High and was interpreted as respondents agree. On the same note, affective dimension is the indicator with the highest overall mean, which has a descriptive equivalent of very high and was interpreted as respondents strongly agree. At the same time, the conative dimension was the indicator with the lowest overall mean, which has a descriptive equivalent of High and was interpreted as respondents agree.

The current result is aligned with the study of Wang and Wu that affective factors such as learning motivation, attitude, anxiety, empathy, inhibition, and personality all play a role in stimulating, regulating, maintaining, and directing learners' cognitive activities, affecting the speed and effectiveness of foreign learning as well as the learners' overall development and long-term development of second language acquisition.

Moreover, the result confirms the study of Getie and Popescu, stating that attitudes toward English learning for beginners are thought to influence behavior and has evidence of a link between attitudes and success or achievement. Thus, the reason for this is that one's attitude impacts one's demeanor, inner mood, and learners' learning.

Significance of the Relationship between the Beliefs about Language Learning and English Language Attitude

The test of the relationship between beliefs about language learning and English language attitude revealed a significant relationship between beliefs about language learning and English language attitude. It implies that the students' beliefs about language learning are correlated with English language attitudes. In other words, the belief about language learning of the students would also likely be affected by the English language attitude of primary English students.

The result conforms with Mbato et al., who found out in their study that the belief about language learning had a strong relationship with students' English language attitude and awareness of the benefits of the English language for their future careers. Additionally, Adithepsathit and Wudthayagorn (2018) proved that learners with reasonable beliefs about language learning and high drive are more likely to be effective language learners. Similarly, learners may be driven to their full language learning potential by cultivating and sustaining positive ideas, excellent attitudes, and motivation in learning the language.

Significance of the Relationship between the Beliefs about Language Learning and Cognitive Performance

The test of the relationship between beliefs about language learning and cognitive performance revealed a positive and significant relationship between sustainable production indicators. It implies that the increase in cognitive performance would also likely significantly increase English students' beliefs about language learning.

The present result conforms to the study of Belkhir (2020), in which researchers in the fields of cognitive linguistics and language teaching and learning have been attracted by the link between cognition and language learning. These include perception, memory, visualization, language, problem-solving, reasoning, storage, transformation, and use of knowledge and decision-making are all examples of cognitive processes that concern language acquisition. Thus, the cognitive revolution shifted focus back to human mind processes, reasoning skills, and reasoning abilities that are now difficult to argue that cognition plays a significant role in language acquisition.

Significance of the Relationship between Cognitive Performance and English Language Attitude

The relationship between cognitive performance and English language attitude shows a positive and significant relationship between cognitive performance and English language attitude. It suggests that the increase in an English language attitude would also likely increase the cognitive performance of major in English students.

The result of the current study is in line with the study of Zuo et al. that during language learning, the cognitive process of attitude responds to learners' beliefs about their knowledge and comprehension of the language. In many circumstances, a sound or negative attitude toward the target language is influenced by various factors, including social and psychological characteristics, educational background, positive feelings, and job objectives. It was also found that emotional, behavioral, and cognitive aspects directly and indirectly impacted attitudes toward English language learning.

On the Mediating Effect of Cognitive Performance on the Relationship between the Beliefs about Language Learning and English Language Attitude

According to the mediation study, cognitive performance partially mediates the connection between views about language acquisition and English language attitude. The partial mediation could not ultimately assert that cognitive performance is why ideas about language acquisition can impact English significant students' attitudes about the language. It suggests that cognitive performance can help explain how ideas about language learning influence attitudes toward English language acquisition.

V. CONCLUSION

Conclusions are formed in this part, as seen from the study's findings. The outcomes of this study support the hypothesis that cognitive performance mediates the connection between beliefs about language learning and English language attitudes. Although there is only partial mediation for cognitive performance, the mediator cannot account for the effects on English language attitude.

The following are the conclusions based on the results. The level of beliefs about language learning is High with a descriptive value of High and interpreted as most respondents agree. The indicator with the highest mean is the motivation and expectations with a descriptive value of high, and the indicator that got the lowest mean is the difficulty of language learning which has a descriptive value of high.

While the level of English language attitude got a descriptive value of High, which is interpreted as most respondents agree, the indicator that got the highest mean is the affective domain which has a descriptive value of Very High. On the other hand, the indicator with the lowest mean is the conative domain with a high descriptive value.

On the other hand, the level of cognitive performance got the descriptive value of High and interpreted as most students agree. The indicator that got the highest mean is flexibility which has a descriptive value of high. On the other note, the indicator that got the lowest mean is memory. Furthermore, the beliefs about language learning and English language attitude were rejected, which means there was a significant relationship between the belief about language learning and English language attitude.

On the beliefs about language learning and cognitive performance, which were rejected, there was a significant relationship between the beliefs about language learning and cognitive performance. While with cognitive performance and English language attitude, which was rejected, there was a significant relationship between cognitive performance and English language attitude.

On another note, the mediating effect of cognitive performance on the relationship between the beliefs about language learning was rejected. There was a mediating effect of cognitive performance on the relationship between the beliefs about language learning and English language attitude.

The overall recent findings of the study conform with the study of Horwitz that the belief about language learning is crucial because it allows teachers to understand better learners' approaches to language learning and their use of learning strategies, allowing them to design language instruction to adequately help the learners who have their preconceived belief about language learning.

Also, the finding supports the theory of Bruner, stating that the outcome of behavior or the performance is first conceived in the mind that allows one to predict the possible outcome, whether success or failure, since this is the capacity to "invent" to oneself the possible result.

VI. RECOMMENDATIONS

The following recommendations are made based on the findings and conclusions:

Administrators may design programs that will enhance students' skills in English language attitude. Moreover, the difficulty of learning language, conative dimension, and memory are also recommended to be given attention in crafting programs that would enhance students' skills since the following got the lowest scores.

Teachers are also encouraged to help students engage in activities that promote development memory, conative dimension, and language learning difficulty. With appropriate strategies in learning the language and motivation, learners could perform better in every classroom activity. Examples are extemporaneous, impromptu, and public and prepared speaking that would require individuals to speak and gradually develop their confidence in using the English language. Role-play and simulation can be fun and learning, which would again help students gain confidence using the target language.

Supplementary research of the study may be conducted to explore other factors that significantly mediate the relationship between the beliefs about language learning and the English language attitude of students. Moreover, duplication of this study is encouraged to test and validate results in other contexts.

REFERENCES

- Addisu, Sewbihon Getie. "Factors Affecting the Attitudes of Students Towards Learning English as a Foreign Language." Cogent Education 7.1 (2020) ProQuest. Web. 22 Nov. 2021.
- [2] Adithepsathit, Urairat and Jirada Wudthayagorn. "Beliefs about English Language Learning, Attitudes and Motivation of Undergraduate Students of Prince of Songkla University, Surat Thani Campus." (2018) So05.tci-thaijo. Web. 12 Nov. 2021.
- [3] Al Momani, Muntaha, et al. "The Association between Beliefs about Language Learning and Language Proficiency among Jordanian EFL Learners at Ajloun University College." Journal of Language Teaching and Research 12.1:144-57. (2021). ProQuest. Web. 9 Nov. 2021.
- [4] Alhamami, Munassir. "Learners' Beliefs about Language-Learning Abilities in Face-to-Face & Online Settings: Revista De Universidad y Sociedad Del Conocimiento." International Journal of Educational Technology in Higher Education 16.1 (2019): 1-23. ProQuest. Web. 9 Nov. 2021.
- [5] Aliakbari, Mohammad and Mojtaba Gheitasi. "Investigating students' test anxiety and attitude toward foreign language learning in secondary school in Ilam." Journal of Pan-Pacific Association of Applied Linguistics (2017). 20(2), 51-69. Eric.ed.gov. Web. 9 Nov. 2021.
- [6] Alrabai, Fakieh. "The Association between Self-Efficacy of Saudi Learners and their EFL Academic Performance." Theory and Practice in Language Studies 8.10 (2018): 1351-60. ProQuest. Web. 13 Nov. 2021.
- [7] Alves, Ana Filipa, et al. "Cognitive performance and academic achievement: How do family and school converge?" European Journal of Education and Psychology 10, 49-56. (2017). Sciencedirect. Web. 9 Nov. 2021.
- [8] Alzamil, Abdulrahman. "The Effects of the Use of First Language on Learning English as a Second Language: Attitudes of Arabic EFL Learners." Arab World English Journal, 10 (3) 192- 201. (2019). Papers.ssrn. Web. 9 Nov. 2021.
- [9] Ariani, Mohsen Ghasemi and Narjes Ghafournia. "The Relationship between Socio-Economic Status, General Language Learning Outcome, and Beliefs about Language Learning." International Education Studies; Published by Canadian Center of Science and Education. (2016). Eric.ed.gov. Web. 9 Nov. 2021.
- [10] Arslan, Gülçin and Huseyin Kafes. "Turkish prep school EFL students' beliefs about language learning." International Online Journal of Education and Teaching 8(2). 1312-1330. (2021). IOJET. Web. 9 Nov. 2021
- [11] Asenahabi, Bostley Muyembe. "Basics of Research Design: A Guide to selecting appropriate research design" International Journal of Contemporary Applied Researches (2019). ijcar.net. Web. 23 Nov. 2021
- [12] Bananuka, Juma, et al. "Attitude: Mediator of Subjective Norm, Religiosity and Intention to Adopt Islamic Banking." Journal of Islamic Marketing 11.1 (2020): 81-96. ProQuest. Web. 27 Nov. 2021.
- [13] Belkhir, Sadia. "Cognition and Language Learning." Cambridge Scholars Publishing Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK British Library Cataloguing in Publication Data. (2020). Researchgate. Web. 9 Nov. 2021.
- [14] Bruner, Jerome. "Bruner's Theory of Constructivism", (1957). Weebly.com. Web. 12 Nov. 2021.
- [15] Celik, Seyda and Selami Aydin. "A Review of Research on the Use of Native Language in EFL Classes." Literacy Trek. 4. 1-14. (2018). Researchgate. Web. 12 Nov. 2021
- [16] Chalmers, Kerry A., and Emily E. Freeman. "A Comparison of Single and Multi-Test Working Memory Assessments in Predicting Academic Achievement in Children." The Journal of psychology 152.8 (2018): 613-29. ProQuest. Web. 12 Nov. 2021.
- [17] Chen, Xiuwen, et al. "Language learning as investment or consumption? A case study of chinese university students' beliefs

about the learning of languages other than english." School of Foreign Studies, Shanghai University of Finance and Economics (2020). Mdpi.com. Web. 9 Nov. 2021.

- [18] Chih-Pei, H. U., and CHANG Yan-Yi. "John W. Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches." Journal of Social and Administrative Sciences 4.2 (2017): 205-7. ProQuest. Web. 22 Nov. 2021.
- [19] Conner, Nathan W., and T. G. Roberts. "A Qualitative Case Study of the Cultural Experiences of Undergraduates on a Study Abroad Program in Costa Rica." NACTA Journal 61.2 (2017): 141-9. ProQuest. Web. 12 Nov. 2021.
- [20] Çoşkun, Göksel and Adnan Taşgin. "An investigation of anxiety and attitudes of university students towards English courses." Journal of Language and Linguistic Studies, 14(2), 135-153. (2018).Jlls. Web. 9 Nov. 2021.
- [21] Costa, Raphael Raniere de Oliveira, et al. "Clinical Simulation in Cognitive Performance, Satisfaction and Self-Confidence in Learning: A Quasi-Experimental Study." Acta Paulista de Enfermagem 33.6 (2020): 1-8. ProQuest. Web. 13 Nov. 2021.
- [22] Davis, Ben. "What is descriptive research design according to Creswell?" MVOrganizing Knowledge Bank: (2021) Quick Advice for Everyone. Web. 23 Nov. 2021
- [23] Dixon, L. Quentin, et al. "Pre-Service teacher attitudes toward english language learners." The NABE Journal of Research and Practice, 7(1) (2016). TandFonline.com. Web. 9 Nov. 2021.
- [24] Doleck, Tenzin, et al. "Algorithmic Thinking, Cooperativity, Creativity, Critical Thinking, and Problem Solving: Exploring the Relationship between Computational Thinking Skills and Academic Performance." Journal of Computers in Education 4.4 (2017): 355-69. ProQuest. Web. 12 Nov. 2021.
- [25] Duisembekova, Zerde and Kemal Sinan Özmen. "Analyzing Language Learning Beliefs of English Student Teachers: A Cross-Cultural Study Across Turkic Republics *." Bilig 94: 51-73(2020). ProQuest. Web. 9 Nov. 2021.
- [26] Estliden, Karin Pethman. "Why is it important to learn English? A study of attitudes and motivation towards English and English language learning in Swedish upper secondary school." (2017). Diva-portal. Web. 11 Nov.2021.
- [27] Funada, Natsuno. "Selected Poster Presentations from the American Association of Applied Linguistics Conference, Denver, USA, March 2020: Learners' Attitudes Toward English as an International Language: For a Much-Needed Innovation in English Language Teaching." Language Teaching 53.4 (2020): 533-6. ProQuest. Web. 11 Nov. 2021.
- [28] Hismanoglu, Murat. "A study on english preparatory program EFL learners' beliefs about language learning in relation to gender, second foreign language knowledge and foreign country experience." International Journal of Applied Linguistics & English Literature, 5(5), 109-118. (2016). Web. 9 Nov. 2021.
- [29] Horwitz, Elaine. "Surveying student beliefs about language learning". In Wenden, A & J Rubin (Eds), Learner strategies in language learning. Englewood Cliffs: NJ Prentice-Hall. 119-129. (1987). jstor. Web. 9 Nov. 2021.
- [30] Huang, Yijun, et al. "An Empirical Study on the Phenomenon of Information Narrowing in the Context of Personalized Recommendation." Journal of Physics: Conference Series 1631.1 (2020) ProQuest. Web. 12 Nov. 2021.
- [31] Hussain, Muhammad Athar. "Language Anxiety and Attitude of Secondary School Students Towards Learning English." Pakistan Journal of Education 35.1 (2018) ProQuest. Web. 9 Nov. 2021.
- [32] Indumathi, T., and N. Ramakrishnan. "Development and validation of a tool on cognitive performance of high school students". International Journal of Research -GRANTHAALAYAH, vol. 5, no. 8(SE), (2017), pp. 100-5. 10 Nov. 2021
- [33] Karwan, Talaat Rashid, and Salahaddin Jabbar Diman. "Analyzing Student's Attitude Towards Foreign Language Learning." International Journal of Social Sciences & Educational Studies 3.4 (2017): 185-96. ProQuest. Web. 11 Nov. 2021.
- [34] Liu, Guobing, and Ling Zhang. "Study of the Correlation among Junior High Students' English Learning Motivation, Attitudes and

Achievements-from the Perspective of Attribution Theory." Journal of Language Teaching and Research 9.5 (2018): 970-8. ProQuest. Web. 11 Nov. 2021.

- [35] Lojo-Seoane, Cristina, et al. "Cognitive Reserve and Working Memory in Cognitive Performance of Adults with Subjective Cognitive Complaints: Longitudinal Structural Equation Modeling." International Psychogeriatrics 32.4 (2020): 515-24. ProQuest. Web. 11 Nov. 2021.
- [36] Mang, Yaw, and Orlando Rafael González González. "A Comparative Study of Attitudes Toward English Language Held by Grades 7-10 Students at № 1 Mindat High School, Chin State, Myanmar." Scholar : Human Sciences 11.2 (2019): 75. ProQuest. Web. 11 Nov. 2021.
- [37] Mbato, Concilianus Laos and Paulus Yanuar Kharismawan. "A Correlational Study between Language Attitudes and English Language Orientation of Indonesian EFL Learners." LEARN Journal : Language Education and Acquisition Research Network Journal, Volume 11, Issue 1(2018). Eric.ed.gov. Web. 10 Nov. 2021.
- [38] Melero-Cañas, David, et al. "Enhancements in Cognitive Performance and Academic Achievement in Adolescents through the Hybridization of an Instructional Model with Gamification in Physical Education." Sustainability 13.11 (2021): 5966. ProQuest. Web. 11 Nov. 2021.
- [39] Mualem, Raed, et al. "The Effect of Movement on Cognitive Performance." Front Public Health. (2018). Ncbi resources. Web. 10 Nov. 2021.
- [40] Özmat, Demet, and Senemoğlu Nuray. "Difficulties in Learning English by EFL Students in Turkey 1." Egitim Bilimleri Fakultesi Dergisi 54.1 (2021): 141-73. ProQuest. Web. 11 Nov. 2021.
- [41] Peng, Peng and Rogier Kievit. "The Development of Academic Achievement and Cognitive Abilities: A Bidirectional Perspective." Society of Child and Research Development (2020). Scrd. Web. 10 Nov. 2021
- [42] Popa-Velea, Ovidiu, et al. "The Impact of Self-Efficacy, Optimism, Resilience and Perceived Stress on Academic Performance and its Subjective Evaluation: A Cross-Sectional Study." International Journal of Environmental Research and Public Health 18.17 (2021): 8911. ProQuest. Web. 12 Nov. 2021.
- [43] Pot, Anna, et al. "Intensity of Multilingual Language use Predicts Cognitive Performance in some Multilingual Older Adults." Brain Sciences 8.5 (2018): 92. ProQuest. Web. 12 Nov. 2021.
- [44] Ramírez-Lizcano, Natalia, and Mar Cabrera-Tovar. "EFL Learners' Perceptions about Language Learning and Culture when using Telecollaboration." Profile 22.2 (2020): 95-113. ProQuest. Web. 11 Nov. 2021.
- [45] Samdani, Hina, and Amna Yameen. "An Engagement Story: Engaging Employees through Ethical Leadership. 8 Vol. London: Centre for Business & Economic Research, 2017. ProQuest. Web. 27 Nov. 2021.
- [46] Şengül Yaman-Sözbir, et al. "Effect of Chewing Gum on Stress, Anxiety, Depression, self-focused Attention, and Academic

Success: A Randomized Controlled Study." Stress and Health 35.4 (2019): 441-6. ProQuest. Web. 12 Nov. 2021.

- [47] Shuja, Aleema, et al. "Effect of m-Learning on Students' Academic Performance Mediated by Facilitation Discourse and Flexibility." Knowledge Management & E-Learning 11.2 (2019): 158-200. ProQuest. Web. 12 Nov. 2021.
- [48] Skubic, Darija, and Dagarin Fojkar Mateja. "Pre-Service Teachers' Beliefs about Foreign Language Learning: A Study of Three Different Teacher Training Study Programmes in Slovenia." ELOPE; English Language Overseas Perspectives and Enquiries 14.2 (2017): 103-16. ProQuest. Web. 11 Nov. 2021.
- [49] Smithies, Tim D., et al. "The Effect of Sleep Restriction on Cognitive Performance in Elite Cognitive Performers: A Systematic Review." Sleep 44.7 (2021) ProQuest. Web. 11 Nov. 2021.
- [50] Somblingo, Ricardo Amparo, and Ericson Alieto. "English Language Attitude among Filipino Prospective Language Teachers: An Analysis through the Mentalist Theoretical Lens" Asian ESP Journal (2020). Eric.ed.gov. Web. 9 Nov. 2021.
- [51] Soomro, Ashfaque Hussain, et al. "An Attitudinal Study of English as a Foreign Language in Sukkur Sindh Pakistan." Journal of Education and Educational Development (2018). Web. 10 Nov. 2021.
- [52] Tódor, Erika-Mária and Zsuzsanna Dégi. "Language Attitudes, Language Learning Experiences and Individual Strategies What Does School Offer and What Does It Lack?" Acta Universitatis Sapientiae, Philologica, vol.8, no.2, (2017), pp.123-137. Sciendo. Web. 24 Nov. 2021.
- [53] Uribe, Diego Martinez, et al. "Attitudes of Mexican American students towards learning English as a second language in a structured immersion program." Porta Linguarum, 20, 205-221(2013). Researchgate. Web.10 Nov. 2021.
- [54] Utami, Eka Ayu Rizki, et al. "The language attitude of Islamic boarding school students toward English." Journal of Education and Learning (EduLearn) Vol. 14, No. 2, (2020) pp. 168~175. Eric.ed.gov. Web. 10 Nov. 2021.
- [55] Wang, Linyan, and Xuan Wu. "Influence of affective factors on learning ability in second language acquisition." Revista Argentina de Clínica Psicológica 29.2 (2020): 1232. ProQuest. Web. 12 Nov. 2021.
- [56] Wei-Chieh Fang, et al. "Effects of Reciprocal Peer Feedback on EFL Learners' Communication Strategy use and Oral Communication Performance." Smart Learning Environments 5.1 (2018): 1-16. ProQuest. Web. 11 Nov. 2021.
- [57] Zhang, Guoying, et al. "Working Students and their Academic Performance – A Decision Tree Analysis." Journal of Higher Education Theory and Practice 19.7 (2019): 123-36. ProQuest. Web. 12 Nov. 2021.
- [58] Zuo, Xin, et al. "How Much Do Emotional, Behavioral, and Cognitive Factors Actually Impact College Student Attitudes towards English Language Learning? A Quantitative and Qualitative Study." Information. (2019). Mdpi. Web. 10 Nov. 2021.