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Editor in Chief

Dr. Manoj Kumar

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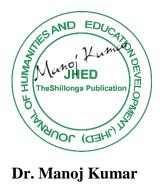
**FOREWORD** 

I am pleased to put into the hands of readers Volume-5; Issue-1: 2023 (January-February, 2023) of "Journal of Humanities and Education Development (JHED) (ISSN: 2581-8651)", an international journal which publishes peer reviewed quality research papers on a wide variety of topics related to, Humanities and Education development. Looking to the keen interest shown by the authors and readers, the editorial board has decided to release print issue also, journal issue will be available in various library also in print and online version. This will motivate authors for quick publication of their research papers. Even with these changes our objective remains the same, that is, to encourage young researchers and academicians to think innovatively and share their research findings with others for the betterment of mankind. This journal has DOI (Digital Object Identifier) also, this will improve citation of research papers.

I thank all the authors of the research papers for contributing their scholarly articles. Despite many challenges, the entire editorial board has worked tirelessly and helped me to bring out this issue of the journal well in time. They all deserve my heartfelt thanks.

Finally, I hope the readers will make good use of this valuable research material and continue to contribute their research finding for publication in this journal. Constructive comments and suggestions from our readers are welcome for further improvement of the quality and usefulness of the journal.

With warm regards.



Dr. Manoj Kumar

Editor-in-Chief

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Journal of Humanities and Education Development (JHED)

Peer-Reviewed Journal

### Causes of Foreign Language Anxiety Among Students at Private Universities in Erbil

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#### Abstract

Education is often regarded as an effective means of guiding students in the process of altering their behavior to conform to the standards of both themselves and the expectations of society. Both students' anxiety and their attitudes toward learning are seen as essential elements of the educational process; as a consequence, both factors play an important part in the development of second language skills. The primary objective of this study is to investigate the factors that cause students attending private institutions in Erbil to experience anxiety when they are studying a foreign language. A quantitative study approach was used to quantify the students' anxiety, and the factors that were taken into consideration were fear of receiving a negative evaluation, communication apprehension, and exam anxiety. The researcher was successful in collecting the necessary data after adapting and modifying a survey that had been established by previous academics. The researcher was successful in collecting 92 surveys that had all of the required fields filled out. Using multiple regression analysis, each of the study hypotheses could be evaluated. The findings of this research showed that a student's fear of experiencing negative anxiety was related to a greater level of anxiety when it came to the process of learning a new language, but a student's fear of performing poorly on a test was related to a lower value, among other factors.

#### Keywords— Language Learning, Anxiety, Private Universities, Kurdistan

#### I. INTRODUCTION

The concept of education as an important instrument for supporting students in modifying their behavior in accordance with their needs and the expectations of society is gaining widespread support (Boudreau et al., 2018). Because anxiety and attitude are viewed as essential aspects of education among students, they play an important part in the development of a student's ability to learn a second language (Teimouri et al., 2019). Because it is the language that divides the powerful members of society from the rest of the population, the English language plays an important part in many countries across the world (Chou, 2018).

The process of becoming fluent in English is one that is difficult and demanding (Zheng and Cheng, 2018). Every single individual who is learning a foreign language experience something new that has the ability to alter their entire identity (Tridinanti, 2018). As a consequence of this, successful language learning requires wholehearted commitment, great focus (Mokhtar, 2020), and the ability to effectively regulate one's emotions (Dewaele and Alfawzan, 2018). The fact that there are other additional factors to consider makes the process of learning a second

language considerably more difficult. Anxiety over one's ability to communicate in one's target language is one of the numerous variables that might affect one's rate of language acquisition (Dewaele et al., 2019). Anxiety is something that many people who are learning English go through as they move along in the process of acquiring the language. Even though the intensity of how foreign language learners feel differs from student to student, one thing that cannot be denied is the role that anxiety plays in the process (Sevinç and Dewaele, 2018). It is possible that some students will find learning English as a second language to be a challenging and tough endeavor. According to the findings of Talim et al. 2021, more than half of those who are learning a second language experience some type of anxiety. Students of a second language who suffer from anxiety may discover that studying that language is less enjoyable, and they may be aware of how their performance is affected by their worry. Because most Kurdish students do not have the opportunity to interact with native speakers of English outside of the classroom, English is considered to be an essential language for many Kurdish students (Ozer and Altay, 2021).

Anxiety is a fundamental problem that has to be addressed in personality theories (Jiang and Dewaele, 2019). Since the early 1970s, academic study in the field of learning languages other than one's native tongue has focused on the topic of anxiety (Dewaele et al., 2019). On the other hand, it is still considered to be a challenging psychological issue. In light of the aforementioned, the goal of this investigation is to investigate the factors that lead to anxious feelings in people who are learning a second or foreign language (Jin and Dewaele, 2018). There are a lot of different strategies that teachers use in the classroom in order to pick up on the anxiousness of the pupils they are trying to reach (Lee and Drajati, 2019).

In spite of the fact that we are all familiar with the concept of anxiety and have encountered varied degrees of unpredictability and nervousness in a variety of facets of our lives, anxiety continues to be a nebulous concept that is hard to explain (Piniel and Albert, 2018). Anxiety is a component of the affective domain, which focuses on the emotional facets of human behavior and is concerned with the human experience (De Smet et al., 2018).

People who suffer from anxiety describe it as a distressing sensation that makes them feel constricted, vulnerable, and powerless in the face of potential danger (Maican and Cocoradă, 2021). Students in Kurdistan are required to keep up with their day-to-day activities and attend all of their classes in order to fulfill the academic requirements that have been set for them. Students may have the opportunity to devote more time and interest to the study of the English language if it is recognized as a significant world language. This recognition should be accorded to the English language. Additionally (Dewaele, 2019), schools must provide children with the opportunity to learn English through the development of their reading, writing, and speaking skills, in addition to providing students with the chance to improve their particular language talents (Teimouri et al., 2022). Because it is utilized as a medium of instruction in the English language departments of a number of different private institutions (Boudreau et al., 2018), the English language plays an essential role in the overall educational system. Even though many children started learning English in elementary kindergarten, or even day care, a significant number of those children are unable to reach an adequate level of English proficiency. The primary reason for this is a lack of motivation on the part of students at all educational levels. The acquisition of a second language is a potent instrument that may assist students in modifying their conduct to conform with their goals and the norms of their respective societies (Teimouri et al., 2019).

Attitude is viewed as a significant factor in language acquisition since the level of comfort experienced by students is such a crucial component of the educational process (Chou, 2018). It is anticipated that elements such as selecting and reading the proper content, interacting with a native English speaker, and other similar activities would impact the attitude toward the process of learning English (Zheng and Cheng, 2018).

#### Statement of the Problem

Over the past several decades, there has been a meteoric rise in the number of people studying English as a second language or a foreign language (Tridinanti, 2018). As the number of individuals interested in learning a language, particularly English as a second or foreign language, continues to rise, it is more important than ever to pinpoint the factors that might impede language acquisition. in particular, English as a second or foreign language (Dewaele and Alfawzan, 2018). Anxiety among language learners has not gotten a considerable amount of attention since the emergence of a constellation of variables that adversely influence second language learning (Mokhtar, 2020).

#### II. REVIEW OF LITERATURE

#### **Anxiety in Language Learning**

When it comes to learning a foreign language, many studies have been conducted in the past to investigate the many factors that might lead to feelings of anxiety (Dewaele et al., 2019). Learner variables and situational factors make up the two primary categories that these components are often organized into. Learners are influenced by a number of factors, including their mindsets, levels of self-confidence, ages, races, personalities, genders, and levels of motivation (Sevinç and Dewaele, 2018). On the other side, situational conditions put "social interactions, course activities, course materials, education providers' conduct, and course level" in jeopardy (Ozer and Altay, 2021).

The aforementioned factors interact with one another in a variety of ways, generating and increasing the amount of anxiety that is experienced by students of foreign languages (Dewaele et al., 2019). According to Jiang and Dewaele (2019), the distinction between facilitative anxiety and debilitative anxiety shows the link between language and anxiety accomplishment. Although anxiety may have some positive effects, research conducted by a large number of academics has shown that there is frequently a negative association between language and anxiety achievement among a large number of language learners of foreign languages. Many students who are taking classes in a foreign language are having difficulties

in the classroom as a result of their anxiety (Akkaş et al., 2020).

Anxiety is widely recognized as one of the most significant aspects of the process of learning a foreign language (Jin and Dewaele, 2018). Anxiety about language is distinct from anxiety about other topics or topics in general. According to Lee and Drajati (2019), anxiety related to language learning is unique from all other forms of anxiety. The majority of people who are learning a language have shown that they struggle with anxiety, which causes them to feel uneasy while they are in a classroom environment studying a language. According to Piniel and Albert (2018), language anxiety is rather common among those who are learning a second language, and it can result in a variety of problems. As a result, children learning a second language or a language from another country should not be made to feel anxious about the language they are learning, as this would make the learning process more efficient. According to research conducted by De Smet et al. (2018), the efficacy and efficiency of the language learning process decrease when students' levels of language anxiety increase (Maican and Cocoradă, 2021). In order to determine how a student is learning a language, the most efficient technique is to conduct a survey. Students might not be able to recall or comprehend the strategies that they have learned in the past or that have been used by teachers in the past, in addition to the method descriptions that are provided in the survey sections (Dewaele, 2019). As a direct consequence of this, a number of studies have developed questionnaires based on the most recent assignments that students have finished. It would appear that if only a small amount of time has passed, pupils will be more accurate in delivering the appropriate response to the survey that should be given (Teimouri et al., 2022).

Students utilize language learning as a method or an instrument to perform learning activities that are based on their language abilities, such as writing, listing, reading, and speaking. Language learning may be classified as either a strategy or an instrument (Boudreau et al., 2018). For instance, Boonkongsaen (2012) defined learning as "cognitive abilities, behaviors, plans, habits, stages, and learning skills accepted by the learner during the learning processes." The author also emphasized that the utilization of strategies would be helpful in boosting learner self-sufficiency.

According to Teimouri et al. (2019), the term "language process" refers to the methods that are used to solve difficulties that arise throughout the process of learning a second language. According to Chou (2018), the learning language process is the mechanism via which a learner acquires, recalls, and keeps new skills and information.

The process of learning a language may be defined as "any combination of methods, phases, or routines adopted by the learner to permit the attainment, storage, recovery, and use of knowledge," according to Zheng and Cheng (2018). According to Jamal et al. 2021, learning language processes are overall actions and sentiments that learners utilize when learning to assist them in remembering and retaining new information and expertise. According to Chamot and Malley (1990), learning language processes are "special views or behaviors that learners deploy in order to help them acquire, remember, or recall new knowledge and information." As a consequence of this, learning strategies are now referred to as "unique techniques of managing knowledge that improve and recall understanding" (Mokhtar, 2020), and they may be characterized as "learning or retaining information." When previous explanations of the process of language learning concentrated on learning materials and behaviors that replicated unobservable cognitive techniques, definitions finally provided a better understanding of how language learners thought and performed while they were acquiring the language (Tridinanti, 2018).

Furthermore, (Sorguli et al. 2021) defined learning language as "actions and techniques that are consciously selected by learners and may lead to activities taken to improve the learning or use of a second language through the storing, maintenance, recall, and application of information about that language through the storing (Dewaele and Alfawzan, 2018), maintenance, recall, and application of information about that language (Dewaele et al., 2019).

According to Filza and Tahira (2013), the process of learning vocabulary through language may characterized as any activity that has an effect on this extremely broad process (Abdullah et al. 2021). At this time, there has been a significant shift in focus from a provider-dominated style of vocabulary acquisition to a student-centered style of vocabulary learning. The traditional technique for education providers in terms of vocabulary teaching has been assessed on a regular basis (Ozer and Altay, 2021), and among other things, the importance of the pupil's involvement and participation in the process has been highlighted (Sevinc and Dewaele, 2018). The key point of contention in this debate has been that pupils are rarely motivated to do what they can on their own to improve their vocabulary and other skills. Instead, students rely on educational institutions to offer whatever learning they require. According to Ali and Anwar (2021), teaching second-language students to learn vocabulary is a difficult task. Recently, it has been widely assumed that assigning a secondary role to a pupil will commonly result in a setback in vocabulary development.

In order to be effective in their vocabulary learning, students should focus on the key problem and work hard (Dewaele et al., 2019). Have a hands-on experience with the learning activities. One of the most important things is to encourage kids to take on more tasks and take more responsibility for their learning, to increase their vocabulary, and to have more influence over their everyday activities and behaviors (Jiang and Dewaele, 2019). Another advantage of such a strategy, according to Ali (2014), is that it will help satisfy child needs by allowing the child to choose and concentrate on the linguistic components that best satisfy their needs. Many studies, according to Lowrence and Lawrence (2013), have demonstrated the importance of encouraging children to develop their own technique for coping with new vocabulary rather than simply memorizing the meanings of particular words. Another way, according to Akkaş et al. (2020), is to pay more attention to the vocabulary learning tactics of the students using research-based methodologies for language expansion. Students employ a range of ways to deal with new languages, but only a few are more effective than others at extending their strategic resources in a way that is acceptable to them (Jin and Dewaele, 2018).

According to Eren (2012), a variety of social and psychological characteristics, as well as the learners' attitude toward learning a second language, have an impact on their capacity. Baker focused on the importance of the research into the deleterious effects of anxiety on language learning (Lee and Drajati, 2019). Andavar et al. (2020) argued the importance of the affective component and its effect on language learning behavior, which leads to a decrease in students' anxiety in the classroom. The main reason for the importance of affective components such as values, interests, and attitude of students in affecting future behavior is the importance of affective components such as values, interests, and attitude of students (Piniel and Albert, 2018). This explains why it is important to pay attention to students' positive attitudes toward language acquisition, as a favorable attitude will have a good impact on students' future learning (De Smet et al., 2018).

Students' capability, strategy, and attitude, according to Anwar and Balcioglu (2016), determine their language learning success. According to Riasati (2011), students' capacity to acquire a second language is influenced not only by their language and mental abilities but also by their views and ideas towards the target language. They also stated that students' perceptions of attitudes can improve the entire language acquisition process by triggering pupils' beliefs and behaviors toward the target language, its society, and its culture (Maican and Cocoradă, 2021), as well as classifying their likelihood to

acquire the target language. Salehi and Marfet (2014) proposed a theoretical model that emphasized the importance of accompanying attitudinal research in the field of language learning (Dewaele, 2019).

Teimouri et al. (2022) has shown that language teachers, scholars, and students should notice that pupils who have a good attitude and are motivated to study a language are more likely to succeed (Boudreau et al., 2018). As a result, if a student lacks the proclivity and attention to study the target language in order to communicate with others, he or she will develop a negative attitude about language learning and will not be encouraged or enthusiastic about it. As a result, students' attitudes may play a role in language learning, as they may have an impact on their ability to achieve the desired language (Teimouri et al., 2019).

According to Gardner, "inspiration reflects the merger of power and aspiration to achieve the goal of learning the language and good attitudes toward language acquisition." (Chou, 2018) described attitude as a component of inspiration in language learning. He believes that simple predispositions and personality characteristics, such as the pupil's general attitude toward foreigners, and, on the other hand, the aimed language in particular, generalized attitudes and motivations for learning generalized attitudes, classify motivation to learn a foreign language. (Zheng and Cheng, 2018).

#### Foreign Language Anxiety

Students' unfavorable attitudes about learning a foreign language, such as English, have a detrimental impact on their ability to acquire the language, making the process of learning a foreign language, such as English, difficult and complex (Tridinanti, 2018). An individual's complex of feelings, beliefs, behavior, and self-perceptions in the language learning classroom as a result of variances in the language learning process is what Mokhtar (2020) referred to as "foreign language anxiety." As a consequence of this, FLA may have a negative effect on individuals who are learning a language and may cause the process of learning English as a whole to be slowed down. Dewaele and Alfawzan (2018) discovered three different forms of anxiety that are connected with learning English: exam anxiety, fear of receiving a negative assessment, and communication apprehension. Nevertheless, Dewaele et al. (2019) found four factors: worry around English class, anxiety regarding tests, fear of receiving a poor assessment, and uncertainty regarding communication. Generally speaking, a lack of English language skill is the cause of some English learners' discomfort in the classroom or when practicing their English language, as well as concerns over their capacity to communicate in

English (Sevinç and Dewaele, 2018). When it comes to their oral activities in the classroom as an examination or a test instead of enhancing their English language skills, particularly in their speaking, English language learners who are experiencing test anxiety toward the English language process, particularly when it comes to their oral activities in the classroom as an examination or a test, may look at and review their own mistakes as a risk to their identity. While English language learners who are afraid of being graded negatively may see their own mistakes as a threat to their identity (Ozer and Altay, 2021).

Reactions to language anxiety can have a physical impact on language learners, such as the inability to replicate the inflection and rhythm of the language, thereby distorting individuals' sounds, as well as a cognitive impact, such as forgetting certain phrases or words while practicing the English language that was just learned. The physical and cognitive effects of language anxiety can vary from person to person (Dewaele et al., 2019). In addition, Lian and Mardziah (2014) found that dry mouth, weak knees, nausea, and sweating are all considered human symptoms that are connected with linguistic anxiety. In addition, it has been hypothesized that a sizeable proportion of individuals who experience anxiety when learning a language are unsatisfied as a direct result of their inability to communicate effectively in English and that this dissatisfaction is the root cause of English language anxiety. In addition, according to Jiang and Dewaele, (2019), learners' reactions can be broken down into two categories: psychological and physical. These categories include the following human reactions, listed from most common to least common: stuttering, trembling voice, failing to recall familiar words, pale face, faster heart beats, feeling embarrassed, red face, unconscious behaviors, being annoyed, and being annoyed (Akkaş et al., 2020).

#### **Factors of Foreign Language Anxiety**

Certain academic experts have discovered that an individual's anxiety levels rise when they are unable to communicate effectively in either English or any other second language. According to the findings of (Jin and Dewaele, 2018), English language learners who reported higher levels of anxiety also reported lower levels of skill in speaking English. In addition, if you focus an excessive amount of attention on the intonation and pronunciation of English, you could experience anxiety. According to the findings of Sabir et al. 2021, there are five factors that contribute to an increase in anxiety in English classrooms. These factors include the fear of failing in the English classroom or personally, discomfort when learners speak to a native English speaker, negative self-assessment, speech anxiety, and having negative attitudes toward

learning English in the classroom. Lee and Drajati, (2019) also identified a number of factors that can cause anxiety in students in the classroom. These factors include concerns about intelligibility, a lack of vocabulary, a lack of a conducive FL speaking environment, fear of losing face, a lack of oral practice, a fear of speaking FL with others, test anxiety, a fear of making mistakes, poor FL proficiency (Piniel and Albert, 2018), trait anxiety, and having excessive self-consciousness. According to De Smet et al. (2018), English language learners have also recorded instructional methods, personal goals, prior experience, and instructor temperament as important variables.

#### III. METHODOLOGY

The research was conducted in Erbil, which is located in Kurdistan, with a particular emphasis on private universities. The present study included 92 students who were enrolled in the English Department at private institutions around Kurdistan, with a focus on Erbil. The children represented the second, third, and fourth grades, respectively, in their respective classes. The student population ranged in age from 18 to 30 years old. In addition, aspects such as the learner's gender were taken into consideration in order to identify any potential variations in their degree of anxiety.

The Foreign Language Classroom Anxiety Scale (FLCAS), which was established by Horwitz et al. (1986), was used in this study to evaluate the levels of anxiety associated with learning a foreign language as well as the factors that contributed to this anxiety (FLA). The FLCAS is comprised of 33 items, each of which uses a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to evaluate respondents' levels of anxiety in language classroom settings. Horwitz et al. (1986) results validated the FLACAS's dependability. A quantitative approach was taken in order to collect the pertinent information for the inquiry into the aspects that learners feel contribute to the anxiety they experience when attempting to learn a foreign language, namely the English language. The activities of creating, collecting, and analyzing data are the activities that are included in methods. Primary data were collected for the study by the researcher in the form of questionnaires that were sent to participants. The data required for conducting the research were collected from recent academic articles, books, and previous studies related to the students' language anxiety and its factors in learning a foreign language. A questionnaire was prepared and distributed to students of the English Department at private universities.

#### **Research Hypotheses**

H1: There is a negative impact of students" fear of negative evaluation on learning language achievement.

H2: There is a negative impact of communication apprehension on learning language achievement.

H3: There is a negative impact of test anxiety on learning language achievement.

#### IV. FINDINGS

The researcher employed SPSS version 28 to measure the developed research hypotheses as mentioned earlier.

Table 1: Reliability analysis

Variables	Cronbach's Alpha	N of items
Fear of negative evaluation	.740	10
Communication apprehension	.819	11
Test anxiety	.749	11
Language learning	.758	14

As for reliability analysis, the main purpose is to measure the reliabilities of each item used to measure students" anxiety towards learning language in private universities. Moreover, the researcher employed three independent variables and a dependent variable to be measured which it was language learning. However, it was found that (as seen in Table 2) the Cronbach"s Alpha for factor (fear of negative evaluation) = .740 which is greater than .7 this reveals that the 10 items employed to measure fear of negative evaluation were reliable for the current study, the Cronbach"s Alpha for factor (communication

apprehension) = .819 which is greater than .7 this reveals that the 11 items employed to measure communication apprehension were reliable for the current study, the Cronbach"s Alpha for factor (test anxiety) = .749 which is greater than .7 this reveals that the 11 items employed to measure test anxiety were reliable for the current study, and finally, the Cronbach"s Alpha for factor (language learning) as dependent variable = .758 which is greater than .7 this reveals that the 14 items employed to measure language learning were reliable for the current study.

Table 2-Correlation analysis

		Fear negative	communication	Test	Language
		evaluation	apprehension	anxiety	learning
Fear negative	Pearson	1			
evaluation	Correlation				
	Sig. (2-tailed)				
	N	92			
Communication	Pearson	.767**	1		
apprehension	Correlation				
	Sig. (2-tailed)	.000			
	N	92	92		
Test anxiety	Pearson	.657**	.456**	1	
	Correlation				
	Sig. (2-tailed)	.000	.001		
	N	92	92	92	
Language	Pearson	.701**	.629**	.601**	1
learning	Correlation				
	Sig. (2-tailed)	.000	.000	.000	

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N	92	92	92	92

\*\*. Correlation is significant at the 0.01 level (2-tailed).

As for correlation analysis, the main aim is to measure the association between independent variable and dependent variable, as mentioned earlier that the researcher employed three independent variables and a dependent variable. The researcher aim to measure the association between each independent variable and dependent variable, however it was found that the Pearson correlation value between students" fear of negative evaluation and language learning = .701\*\* Sig. (2-tailed)=.000, this reveals that there is a strong correlation between students" fear of negative evaluation and language learning in private universities in Kurdistan, the Pearson correlation value between students" communication apprehension and language learning =

.629\*\* Sig. (2-tailed)=.000, this reveals that there is a moderate correlation between students" communication apprehension and language learning in private universities in Kurdistan, and finally, the Pearson correlation value between students" test anxiety and language learning = .601\*\*Sig. (2-tailed)=.000, this reveals that there is a moderate correlation between students" test anxiety and language learning in private universities in Kurdistan. However, the result of correlation analysis revealed (as seen in Table 2) that there are positive correlation between independent variables and dependent variable.

Table 4: Coefficients

N	Model		Unstandardized Coefficients		P-Value
		В	Std. Error		
1	(Constant)	.794	.172	4.606	.000
	Fear of negative evaluation	.373	.150	2.489	.015
	Communication apprehension	.229	.101	2.268	.026
	Test anxiety	.272	.096	2.834	.006
R Value		.552			
	F value	36.138			
a. Dependent Variable: language learning					

The researcher employed multiple regression analysis to measure the developed research hypotheses. The results revealed that (as seen in Table 3) the vale B for the students" fear of negative evaluation = .373 which greater than .005 along with P-value = .015 this means that there is a negative impact of students" fear of negative evaluation on learning language achievement, however students" fear of negative evaluation will cause an anxiety towards learning language which is considered as one of the barrier that students are facing during the process of language learning, the vale B for the students" communication apprehension = .229 which greater than .005 along with P-value = .026 this means that there is a negative impact of students" communication apprehension on learning language achievement, however students" communication apprehension will cause an anxiety towards learning language which is considered as a barrier that students are facing during the process of language learning, and finally, the vale B for the students" test anxiety = .227 which greater than .006 along with P-value = .015 this means that there is a negative impact of students" test anxiety on learning language achievement, however students" test anxiety will cause an anxiety towards learning language which is considered as one of the barrier that students are facing during the process of language learning.

#### V. CONCLUSION

This research pointed out the importance of English in undergraduate students in Kurdistan. The researcher examined variables influencing students" level of anxiety in Kurdistan and particularly in Erbil city. The researcher employed three variables to be investigated; these variables are (communication apprehension, fear of negative evaluation and test anxiety). A quantitative method was employed to analyze and measure factors affecting students" anxiety in language learning of private universities in Kurdistan. The researcher employed

multiple regression analysis to measure the developed research hypotheses. The results revealed that the highest value was for the students" fear of negative evaluation which indicates that there is a negative impact of students" fear of negative evaluation on learning language achievement. However students" fear of negative evaluation will cause an anxiety towards learning language which is considered as one of the barrier that students are facing during the process of language learning. The second highest value causing students" anxiety in language learning was communication apprehension which indicates that there is a negative impact of students" communication apprehension on learning language achievement. However, students" communication apprehension will cause an anxiety towards learning language which is considered as a barrier that students are facing during the process of language learning. Communication apprehension factor is the second highest influential factor that causes anxiety; students are lack of confidence while practicing language during their foreign language classes, furthermore, student"s nervousness while practising their foreign language with a native speaker, and finally, the lowest value was for test anxiety. However the result reveals that there is a negative impact of students" test anxiety on learning language achievement.

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Journal of Humanities and Education Development (JHED)

# Research on the Application of Online and Offline Mixed Teaching Mode of Marketing Course Based on the BOPPS Model

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Received: 25 Nov 2022; Received in revised form: 16 Dec 2022; Accepted: 03 Jan 2023 ©2023 The Author(s). Published by TheShillonga. This is an open access article under the CC BY license (https://creativecommons.org/licenses/by/4.0/)

#### Abstract

BOPPPS teaching fully integrates the advantages of online self-study and offline courses. This kind of teaching has been widely used in college education, and has proved to have a positive effect on improving students' ability to solve problems. It also has a significant effect on improving students' sense of self-efficacy, stimulating learning interest and improving their ability to learn independently in practice. During the implementation of the research, the team explored and practiced the online and offline mixed teaching mode of marketing course with the wisdom tree teaching platform, and built teaching resources for students to learn and discuss on their own, which is a reference for future online mixed teaching.

Keywords—BOPPPS model, College students, China, Online teaching

#### I. INTRODUCTION

The course of Marketing has been included in the 10 core professional courses of management in Chinese colleges and universities, and is a professional course that pays equal attention to practice and theory. In recent years, in the educational reform of colleges and universities in China, Marketing has been endowed with a variety of online or offline teaching forms, such as admiring lessons, flipped classroom, case teaching method, etc., but there is still a gap with the teaching mode of "student oriented, teacher led" (Fang, 2014; Pan, 2020). The BOPPPS (Bridge-In, Outcomes, Pre-assessment, Participatory Learning, Post-assessment, and Summary) teaching model emphasizes the student-centered teaching concept, and decomposes the classroom teaching process in a modular way to help improve students' learning enthusiasm and learning effect (Ma et al., 2021; Liu et al., 2022).

Under the trend of Internet of Things, educational informatization tools are becoming more and more abundant. Online courses are gradually applied to teaching, providing students with more diversified learning methods, and also providing broader ideas for the teaching reform of Marketing Course. There are still several questions to consider about online teaching, such as what is the effect and quality of online teaching? How to effectively connect online teaching and offline teaching? How to cultivate

students' comprehensive ability to solve problems and advanced thinking? The purpose of this research is to use the BOPPPS model to explore the construction of the online and offline mixed mode of Marketing Course and introduce six procedures of BOPPPS to promote students' comprehensive ability and advanced thinking to solve complex problems.

#### II. RESEARCH PROCEDURE

A survey on the attitude and cognition of college students towards BOPPS teaching method was investigated. The main respondents are college students who take Marketing Courses in China. A sampling survey was conducted using an online questionnaire (Latkovikj and Popovska, 2020), consisting of four main aspects: personal, status of the online class, the perceptions toward BOPPS model, and learning quality. A total of 144 valid questionnaires were collected.

#### III. RESULTS

According to the survey results, it was found that 64% of the students liked the BOPPPS teaching model. It can be concluded that most of the students are well adapted to this model and feel like it. This model is likely to continue to be implemented. 95.2% of the students believe that the

BOPPPS teaching mode can improve the teaching efficiency. It can be seen from it that the BOPPPS teaching mode is indeed more conducive to students' learning of university courses through the combination of online and offline.

In the classroom, students' favorite is video teaching, which accounts for 80.8% of the total. Therefore, we should use video to open the classroom and attract students' interest to a greater extent; Only 17.6% of students choose this teaching method when they are teachers, but we should not give up because of this. We can find the correct mode through many experiments to let students accept this method. So as to further improve the learning ability.

In the participatory teaching link, 72% of students' case analysis and situational experience are the most popular, which shows that this combination of professional knowledge and practice is very popular among students. The BOPPPS teaching mode improves students' ability to think deeply and apply in practice. 66.4% and 60.8% of the students thought that the way of immediate review, such as classroom question and answer and group discussion, could deepen students' memory and improve their learning effect. In the class of BOPPPS teaching mode, corresponding time should be set aside for students to review, digest and absorb knowledge.

Moreover, we found that online teaching also has the advantages of less time and space limitation, easy playback and review, timely real-time interactive feedback, and more convenient access to information. At the same time, it also has the disadvantages of insufficient learning atmosphere, poor network quality, easy external interference, no use of supporting teaching materials, and insufficient knowledge points. 79.12% of students tend to combine online and offline teaching methods after returning to college.

#### IV. DISCUSSION

Based on the research results, this study proposes the following suggestions to improve the teaching methods.

#### Building a student-centered teaching model

Teachers should pay more attention to students and adjust the teaching content timely. Students do not accept the existing teaching model, mainly because of the lack of cooperation with teachers, which makes it difficult for teachers to mobilize students' enthusiasm. This requires teachers to pay more attention to students, find students' interests, and let students have a deeper understanding of the BOPPPS teaching model through understanding students' needs and stimulating their interests. For students

at different grades, it is applicable to different training plans, and corresponding adjustments are made according to different states of students (Du, 2020).

#### Continue to build a mixed teaching mode

There is no universally recognized standard for the proportion, frequency and mode of use of traditional classroom teaching mode and online learning in a class. The key lies in the comprehensive consideration of teachers' teaching needs and students' needs, and the construction of complementary advantages between traditional classroom teaching and online learning based on the reasonable distribution of the two (Gibbons and Wentworth, 2001).

#### Summary of teaching double evaluation

The function of the summary stage should not only be limited to the consolidation and key induction of the teaching content, but also reflect the students' evaluation and teaching feedback on teachers' teaching, that is, in the summary stage, teachers and students, as the two main bodies of the whole teaching process, need to work together to complete the overall evaluation of the teaching content, teaching methods and teaching effects.

#### V. CONCLUSION

BOPPPS model teaching is student-centered, which fully arouses the enthusiasm of students; Combined with the online teaching platform, BOPPPS teaching method realizes the teaching links such as preview before class, test feedback during class, and homework after class. It not only overcomes the problem of untimely learning feedback, but also achieves the barrier free interaction and instant communication between teachers and students.

#### **ACKNOWLEDGEMENTS**

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# The Impact of New Media on Tourism: A Study on West Bengal

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Received: 28 Dec 2022; Received in revised form: 26 Jan 2023; Accepted: 02 Feb 2023 ©2023 The Author(s). Published by TheShillonga. This is an open access article under the CC BY license (https://creativecommons.org/licenses/by/4.0/)

#### Abstract

This research report consists of informative data on tourism and the approach of new media in the tourism industry. The adaptation to new changes towards technology is a dynamic change. In this research proposal, there is a brief discussion on West Bengal tourism and some of the offbeat places in North Bengal. In the tourism industry, social media plays a significant role in communicating with tourists and guides. This research paper talks about tourism in West Bengal. This research paper initiated to discuss all the repercussions and growths of social media referred to tourism. Therefore, the role of social media platforms has a great impact on the tourism industry.

Keywords— Communication, Offbeat place, New Media, Social Media, Tourism Industry, West Bengal.

#### I. INTRODUCTION

The Internet is a widely used technology to bring a revolution in the tourism industry. As tourism is an informative-based industry the use of the internet is very fundamental to it. It shows us the impact of the internet in various positive ways. To give a thorough research a proposal is presented in a brief, the internet has a significant position in it. Therefore, the tourism industry has its maximum followers on the internet. In the traditional media, there are three factors that influence the tourism industry: economic factor, social factor, and environmental factor. Each factor has its own negative and positive points and impact on the tourism industry. In this new era digital media also had a crucial role to play in the tourism industry. Social media sites on the internet are booming with lots of virtual entertainment. The physical presence of an individual went into correspondence. With this social media factor, the range of high internet speed and quality of pictures and sound also matters to the respective target audience.

Some major digital communication that are used in digital advertisement like E-mail, it is inter-personal communication and also a very silent mode of promotion. It is the most less interactive tool in advertising used only on a low-cost budget. Blogs are maintained regularly with proper graphics, video, and communication with the audience. Website, every company should design its

website to promote their products and services. Mobile Marketing, with every day there is an increasing demand for smartphones or android phones. This boosts the working condition which results less paperwork and saves time. Social Media, business tycoons are utilizing social platforms to promote their business. Display AD is presented in a large place with vibrant colours. It is one of the most costly advertisements in the media industry. Search AD means pay-per-click also known as PPC. It is an online advertising model where advertisers pay a publisher every time an advertisement is clicked. Internet Specific AD and Video platform where any consumer or advertiser shares their content for personal or public profit. Just, for example, we can see YouTube and Google. In online Communities, many companies sponsor online activities like online groups, free coupons, and cashback offers to promote their brand and product in the market.

#### II. OBJECTIVES

- To study the awareness of the social media approach in tourism
- To examine the function and impact of new media in the tourism industry
- Analysis the significance of social media
- To study the socio-economic and cultural impact on tourism

• To study the challenges of tourism based on new media

#### III. LITERARY REVIEW

Social media has both positive and negative impacts on the communication system. Electronic word of mouth is a modern and significant tool for marketing. The eWOM can evolve the relationship between the businessman and client and help to provide satisfying results to the customer. A study in the USA says that 46% of people are stuck with their online travel plan, over which they recommend WOM (Word of Mouth) Digital technology has its immense contribution to understanding tourist behaviour in and after vacation plans (Lengkong et al.,2022).

An exclusive study says that in the continent of Europe, the US, and Asian Pacific announced that travellers who are influenced by the internet and social media are traveling across the world on an average of last next 12 months are 4,600 (Lengkong et al.,2022).

An important study on social media influencing travel and tourism shows that:

44% of travelers are encouraged by the internet, travel blogs.

37% of people are influenced by travel forums

27% audience are influenced by Facebook videos and vlogs

24% of the population follows youtube to decide their destination.

22% of them follow Pinterest.

50% of them are application users

The West Bengal government tourism department has signed a Memorandum Of Understanding (MoU) with the Federation of Association in India Tourism and Hospitality (FAITH). The major aim of this MoU is to connect the tourist directly or indirectly to the cultural heritage, promote and protect the folk art, and evolve in other aspects of West Bengal. The MoU was conducted at the sixth Bengal Global Business Summit. The main agenda of this MoU was to skill and empower women by establishing many professional courses. A workshop would be organized by the department of FAITH to prepare the preliminary plan for future tourism.

The research gap which has been observed going through this literature review is the use of social media. Social media has a great influence on the tourism industry (Lei & Gao 2022). With the use of the Internet, any kind of information is available to us but, social media acts as a tool in this industry. In this research paper, the main focus will be on social media rather than the internet.

#### IV. WEST BENGAL TOURISM: - AN OVERVIEW

In this present situation West Bengal compared to the other states of India, is quite rich and diverse. It is rich in cultural heritage and also geographical variants. There are a number of major attractions in West Bengal starting from Sundarban to Hooghly Setu. Now at present, there is a new category of tourism Offbeat tourism, it is defined as a typical location that fails to attract mass tourists but some tourists find simplicity and serenity, therefore, promoting offbeat tourism. In North Bengal, there is a major location for offbeat tourism. Some of the popular locations are Jhlimili- Rimili in Bankura, Khirai, Bamni falls in Purulia, Chatakpur Village, Lepchajagat, and Takdah in Darjeeling.



North Bengal:- No debut it is one of the favorite destinations of tourists. We have the opportunity to see mountains, tea gardens, forests, and rivers. It has abandoned natural beauty and a number of offbeat places. Some of the top lists are headed below.

Dooars Region

- Rongo
- Lepchakha
- Chilapata
- Dalgaon
- Raimatang
- Paren

Darjeeling Region

- Singtom TeaEstate
- Bunkulung
- Tabakoshi

South Bengal:- The tourist places in the southern region of Bengal are quite unloved by people. One of the major reasons is the lack of awareness among tourists. On the other hand, this can be the USP because people can genuinely relax and enjoy it differently

- Burraghutu
- Nachan
- Khoai
- Agarhati
- Tajpur
- Henry's Island
- Chandpur
- Garh Panchkot
- Chandraketugarh
- Jayrambati

- Singell
- Bagora

#### Kalimpong Region

- Bidyang
- Triveni Camping
- Bhalukhop

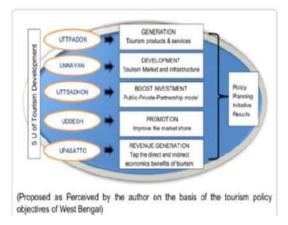
Source- (Bhutia, 2014)

#### Link -https://www.wbtourism.gov.in/



#### Link-https://www.wbtourism.gov.in/

This is an official link of West Bengal State Tourism, further, various kind of information could be persuaded from this official website.



Source - (Lim et al., 2018)

The 5 U model of West Bengal tourism consist of five elementary factors such as Uttpadon which means generating products or services for the consumers. Unayan refers as development in the tourism infrastructure. Uttsadhon is the resources with the help of Public Private Partnership Model. Uddesh means promotion or advertisement to improve the tourism market. Upasatto refers as revenue generation which integrating the economic of the state with respect to tourism.

#### 4.1 New Media

New media is any media—from newspaper articles and blogs to music and podcasts—that are delivered digitally. From a website or email to mobile phones and streaming apps, any internet-related form of communication can be considered new media.

#### **EXAMPLES**

FACEBOOK	CS NOS CS
YOUTUBE	TOUR PLANNER BLOG  SEA PLANE BLUE  GENERAL STATE STATE  (CANADA STATE ST
INSTAGRAM	The system of th
APPLICATION	Yatra - Flights, Hotels, Bus  **He's corn Fairt. He's IRC10 Age this draw Fair He's  A.O.*  A.O.*  Activities 20 Mills Read he's 0  Inversal
WEBSITE	Figure 1 Company

#### V. RESEARCH METHODOLOGY

In this research both secondary and primary data are used equally. This research is conducted with 200 people in West Bengal. The basic research tools like surveys, questionnaires, interviews, and secondary data helped us to represent thorough research on tourism. Many travel agencies and travel expertise helped us to bring up some accurate data on this respective topic. As secondary data, we have included government data from Biswa Bangla, an all-around initiative of the West Bengal government. We interviewed many tour guides to understand the psychological behaviour of travellers.

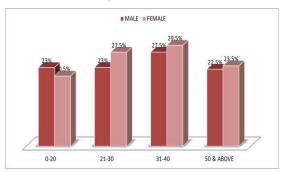
#### VI. DATA ANALYSIS

In this research paper both primary and secondary research analysis is conducted to approach an effective result for the mentioned objectives. The primary research is conducted in two methods that are interviews and survey analysis. The secondary data are taken from authentic sources from internet.

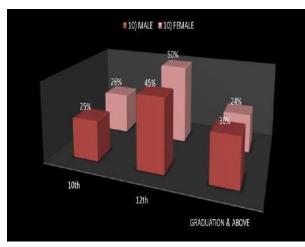
#### 6.1 Primary Data

In this research paper, 200 candidates were selected for the sampling for the primary data research 100 were male and 100 were female. Further, their age, occupation, income, and education were classified in a graphical representation. In this primary data analysis survey method has been conducted with the accidental sampling method. The first graph discusses about the age of all the samples.

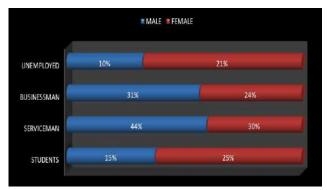
#### • Survey Details



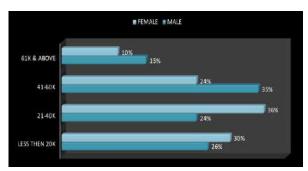
AGE	MALE	FEMALE
0-20	23%	20.5%
21-30	23%	27.5%
31-40	27.5%	29.5%
50 & ABOVE	22.5%	23.5%



EDUCATION	MALE	FEMALE
SECONDERY	25%	26%
HIGHER SECONDERY	45%	50%
GRADUATION &	30%	24%
ABOVE		



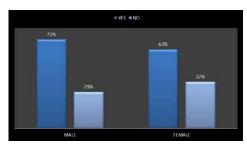
OCCUPATION	MALE	FEMALE
STUDENT	15%	25%
SERVICE MAN	44%	30%
BUSINESSMAN	31%	24%
UNEMPLOYED	10%	21%



INCOME	MALE	FEMALE
LESS THAN 20K	26%	30%
21K-40K	24%	36%
41K-60K	35%	24%
61K&ABOVE	15%	10%

#### • Primary data analysis

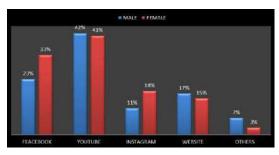
#### 1. New media create awareness in tourism



This statics state that male and female are 71% and 63% respectively aware about new media. The major reason is the content such as post and reels that goes viral. Therefore, by watching those content people get more aware about the tourism.

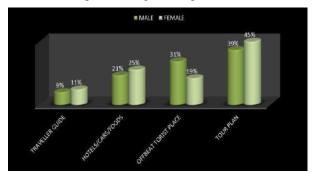
#### 2. Effectiveness of new media in tourism

YouTube is most preferred social media platform in tourism because the content creator gets the facility to create short and long video which provide more information and details about the location. After You Tube, Facebook is considered because it has similar facilities to.



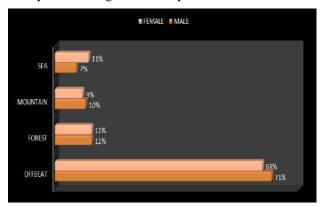
3. Different kinds of data collection for tourism in new media

This statistic result state that both male and female prefer tour plan compare to other options because, it does not require any extra expenses of guid or agent. The second preference is offbeat tourist place due to the rise of new media offbeat places has good frequent visitors.



4. With the help of new media, place has increased visitors

With this bar-graph it can be stated that both the gender prefers offbeat location as a holiday. The major reason for this attraction is new media, media promote these places by the help of bloggers. Some popular offbeat places are Sillery Gaon, Gongani and many more.



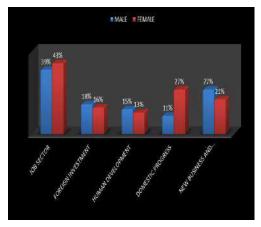
5. New media worked as a catalyst on offbeat tourism

Both male and female agrees that offbeat places are todays trend because of new media. Nowadays travellers love to spent some alone time with nature which increases the visit to offbeat places. Another major reason is after the pandemic situation people likes avoid crowd therefore, offbeat places are in trend.



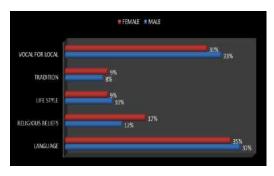
6. Socio-Economic development is pursued in tourism with the help of new media

According to our samples (candidate), they believe that tourism can provide better job opportunity by providing employment to the youth section. As per our national population there is a huge scarcity of jobs. The next preference is business such as hotels, restaurant, travelling vehicles etc. This business can help in economic development in the nation and state. Moreover, foreign investment are also a part of economic development On the other side government earn a good revenue from various tourist sport like museum, heritage, architecture and government holidays.



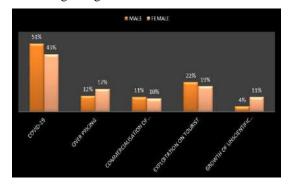
7. The factors influence the cultural impact on tourism through social media

In terms of cultural impact language has the major cultural impact because it provide an opportunity to learn different languages. Another major impact is using the media for presenting local products it is refer as vocal for local. Others tradition, lifestyle and religiousness are also considered in cultural impact.



#### 8. The challenges of tourism in West Bengal

According to the study on West Bengal the major challenge for integrating tourism is COVID-19. This pandemic has shut all the national and international business of tourism. This temporary shutdown has created a huge challenge for the business tycoon to overcome their loses. Exploitation is another issue faced in the tourism people do have trust issues and wants to make some bargaining for themselves.



#### • Interview:- Travel Agent

A personal interview has been conducted with Anup Majumdar, owner of Dishari tourism from Belghoria. Mr. Majumdar is a renowned travel agent in the local area of Belghoria. Some basic questions related to his profession have been asked for this research process.

1. How has social media helped in the growth of tourism?

Social media is an interesting place for every one of us. If I see it as an agent, I get my maximum customers from my Facebook page. They only come after checking my reviews, comparing the package, and sometimes promotion of mouth.

2. In which part of the West Bengal travel opportunity is the most?

It sometimes depends on the weather and sometimes on the trend going on the market. Suppose, generally people prefer hill station on summer but, as per the trend now tourist are visiting hill station on winter season also to enjoy the chilled winter and snowfalls. 3. What are the different kinds of barriers the travelers and guides face regularly?

As a tour agent, we face various difficulties daily, like the bad mood of customers and sometimes extra liabilities of customers. I have also observed some people who like to travel alone just with the help of smartphones and Google Maps. Unfortunately, at the end of the day they get hackled or harassed by some kind of issue. It is very important to know and learn the local culture and psychological behaviour to survive in that particular area. Therefore, we always prefer a local guide to travel the respective area.

#### • Interview:- Tour Guide

Johnny Bhutiya is a tour guide from Darjeeling. He is in active profession from 2005 till now. He shows a sound knowledge about North Bengal therefore, a personal telephonic interview was conducted for this research paper.

1. Do you think social media helps you to spread your contact and reach?

Yes, precisely Facebook, YouTube videos, and post help me to spread my message and contacts. Sometimes it also gives negative impact on the industry by using AI technology instead of human guide.

2. What comparison do you find in the pre- covid and post- covid periods?

In the pre-covid days there was a trend for popular destination, in the post-covid times there is sudden hike in the commodities therefore people show less interest in travelling. However, some people only approach for offbeat places

3. What is your future perspective on tourism with advance social media

As the digital media is getting advanced day by day with the advanced AI technology there is less demand of man force in this sector, therefore learning the technical skills is utmost necessary skills for us to represent our heritage and beauty.

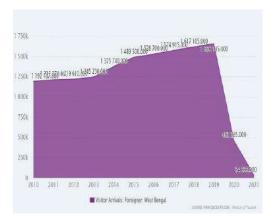
#### 6.2 Secondary Data Analysis: -

This secondary research article focuses on participation of candidate with and without social media influence. There were 39 total participants of destination decision maker. Four out of thirty-nine stated that they were not influenced by social media while choosing their destination (Tham et al.,2020).

Pseudonym	Gender	Age	Occupation	Marital status	Destination choice	First/tepeat visit	Travelling companions
Joseph.	Male	31-40	Sales manager	Married	Phuket (Thalland)	First	Family
bris	Female	41-50	Music teacher	Married	Warmambool (Australia)	First	Family
Frie	Male	61-70	Self employed	Married	New Zealand	First	Family
Gordon	Male	31-40	Software engineer	Married	Gold Coast (Australia)	First	Femily
Andy	Male	41-50	Project manager	Married	Singapore	First	Femily
Linda	Female	31-40	Housewife	Married	Lorne (Australia)	First	Family
Peter	Male	41-50	Research analyst	Married	Ballaret (Australia)	First	Family
Kulie	Fomale	31.40	Self employed	Separated	Cambodia and Vietnam	First	Friend
Maissa	Fomale	51-40		Marned	Vietnam	First	Friands
WGBS	remate	21-00	Senior manager in telecommunications	Warned	Merecco and Tanzania	First	Family
art to				2017			
Mark.	Male	21-30	IT consultant	Not	Canberra and Queensland (Australia)	First	Friends
				manifed	Vietnam	First	Friends
					New Zealand	First	Friends
Elen	Female	21-30	Actress	Not	Bound the world trip	First	Friends but
				married			occasionally along
Marthe	Female	41-50	Waste management supervisor	Married	Bright (Australia)	First	Husband
Priscilla:	Female	51-60	Housewife	Married	Now South Wales (Australia)	First	Husband
Dorothy	Female	Z1-30	Unemployed	Married	Adelaide (Australia)	First	Husband
Grace	Formale	61-70	Housewife	Married	Eastern Europe	First	Husband
Coffeen	Female	31-40	Finance Officer	Married	lyad	First	Husband
Evangeline	Female	21-30	Social media analyst	Married	USA	First	Historia
Alastair	Male	21-30	Food consultant	Not married	Apollo Bay (Australia)	First.	None
Donna	Female	51-60	Healthcare professional	Not married	Terzenia	First	None
Keith	Male	\$1-60	if professional	Not married	Baleanic Islands (Spein)	First.	None
Margaret.	Female	61-70	Retired	Married	USA	First	None
Eddie	Male	21-30	Dontal accistant	Not married	Ralbarat (Auctralia)	First	Partner
Esther	Female	21-10	Administrative officer	Not menied	Bocowana, Namibia, Qatar, South Africa, Tenzonia and Zambia	First	Partner
Gerv	Male	51-60	Self-enclosed	Married	Norfolk Island (Australia)	First	Wal-
Norman	Male	31-40	Unemployed	Married	New Zealand	First	Wife
Phil	Male	61-70	Self-employed	Married	Round the world trip	First	Wife
	Female	31-40	Social medic analyst	Not	Hobart (Australia)		Friend
Kristie	remare	31-10	Social media anarysi	married		Repeat.	Partner
					Jorvit Bay (Australia)		
Anthony	Malo	51-60	Market consultant	Not	England	Repeat	None
				married	Dubar (United Arab Emirates) and Turkey	First First	None Friends but
20520	sarves.	1141141	Partitional	TO SERVICE	Cambodia and Vietnam		occasionally along
Suzie	Female	51-60	Housewife	Widowed	Fiji	Repeat	Daughter
Thomas	Male	51-60	Retiree	Memied	Singapore	Repeat	Femily
Mases	Male	41-50	IT programmer	Married	Sri Lanka and Singapore	Repeat	Family
Terry	Male	41-50	Engineer	Married	Kota Kinabalu (Malaysia)	Repeat	Family
Lionel	Male	41-50	Unemployed	Married	Gold Coast (Australia) and Taiwan	Repeat	Family
Joriah	Malo	31-40	Self amployed	Married	Sydney (Australia)	Repeat	Family
Claudia	Female	41-50	Educator	Divorced	South Africa	Repeat	Family
Lynn	Female	31-40	Housewife	Married	FIII	Receat	Family
lemima	Female	21-30	Researcher	Not manied	Adelbicie (Australia)	Repeat	Family
George	Male	51-60	Self-employed	Not merried	South Koree	Repeat.	Friend
lacob	Male	41~50	Unemployed	Married	Netherlands	Repeat	Wife

Source- (Tham et al.,2020).

In this investigation it has been observed that social media is not only tools for destination decision. However, it contributes widely in tourism and marketers and remain a significant tools for micro-level and onsite decision for restaurant, visitor attraction. The potential tourist has high level of engagement of social media when the destination is unknown. In the findings of this secondary research data stated that social media is considered as transformed tourism landscape. The investigation shows a mixed effects on the tourist.



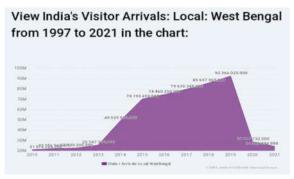
Sourcehttps://www.ceicdata.com/en/india/non-resident-visits-bystates/visitor-arrivals-foreigner-west-bengal

In the year 2021, there is low visitor arrival due to the after effect of COVID-19. On the opposite side, it has the highest peak in the year 2019. However, West Bengal data remain actively reported by the ministry of tourism

Characteristic 💠	Domestic 🗦	Foreign 🤉
2021	24.33	0.03
2020	28.84	0.46
2019	92.36	1.66
2018	85.65	1.61
2017	79.68	1.57
2016	74.4	1.52
2015	70.2	1.49
2014	49	1.37
2013	25.4	1.24

Source-https://www.ceicdata.com/en/india/non-resident-visits-by-states/visitor-arrivals-foreigner-west-bengal

In this statistics report a drastic downfall has been recorded in the year 2020- 21 in both domestic as well as foreign arrival in West Bengal. Due to the precaution of lockdown, the whole transportation system has been stopped temporarily. However only emergency services are provided for that temporary time period.



Source:-

https://www.statista.com/register/premiumtest#professiona <u>1</u>

These statistics are represented from the year 1997 to 2021 the data has reached to its peak in the year 2019. On the opposite side it has the lowest data range in 1997. This report shows a downfall in between 2020-21 due to the international pandemic situation in worldwide. With flexible growth in between the year 2013-19 was possible due to constant digital media growth and the advancement media technology which helped the tourism industry's growth.

#### VII. FINDINGS

In this research, the secondary data indicate that visitors from domestic and foreign were regular till 2019. In the year 2020, the pandemic has temporarily stopped the tourism business (Kumar et al., 2022). However, there are some other minor reasons which are also considered as the barrier in tourism such as Over Pricing, Growth of unscientific massage parlors, and Exploitation on tourists.

The primary data of this research paper shows that people are interested in tourism and also like to explore different offbeat places nearby. They indicate new media as a tool for tourism which can develop in the future. New media not only helps in finding a suitable holiday but also provides a platform for the tourism business.

#### VIII. CONCLUSION

The conclusion of this research paper by stating that with the help of new media not only West Bengal tourism but also the whole tourism industry can flourish in different dimensions. The skills of new media can evolve different businesses and also provide new ideas for business. Moreover, the West Bengal government has constructed various models and policies based on new media for the further development of the Ministry of Tourism. However, it can't be denied that new media play a significant role in the tourism sector. Still, there are some barriers that can be revised in the future for a holistic purpose.

The mobility of tourism is typically based on the communication process. Marketing communication mostly focuses on evolving the relationship of social media and adapting to the tourist need. In the tourism industry, social media is one of the constructive tools of marketing communication. This industry needs to engage the tourist in multiple works like talking about it and recommending their good experience. Engaging with travel has a great impact on social media. It deliberately influences other tourists to get an adventurous experience. therefore, tourism and social media are connected with each other because they provide business to each other. Social media pictures, videos, and blogs help to promote and advertise tourism, and vice versa tourism posts help to get more number of individual on the social media platform. The government of West Bengal has a specific policy and scheme to develop tourism in the state. The West Bengal government earns a good amount of revenue from the tourism industry. West Bengal government has taken several initiatives to prevent the heritage side and spread the culture of sweets and happiness.

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# Teaching in the New Normal through the Lenses of English Teachers

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Received: 23 Dec 2022; Received in revised form: 25 Jan 2023; Accepted: 03 Feb 2023 ©2023 The Author(s). Published by TheShillonga. This is an open access article under the CC BY license (https://creativecommons.org/licenses/by/4.0/)

#### Abstract

This study looked into the challenges that two Senior High School teachers of English and four Junior High School teachers who taught in a Schools Division in one of the cities in the Philippines encountered in teaching English to high school students, into their coping strategies, and into the insights they gained into such experiences vis-à-vis lesson preparation, lesson delivery, modular teaching modality, and assessment of students' outputs in the New Normal during the School Year 2020-2021. Narrative research design was employed, and thematic analysis was used to identify, analyze, and interpret patterns of meaning within the data provided by the participants who composed the entire population. The findings reveal the following themes that were gleaned from the participants' responses. As for the challenges the participants encountered, the following themes were obtained: (1) Preparing Learning Activities that Best Suit Students' Needs; (2) Finding Ways and Means to Reach Out to Students; (3) Lack of Supervision Engenders Unanswered Retrieved Modules or Unreturned Modules; and (4) Ensuring the Authenticity of Students' Answers. As regards the coping strategies the participants employed in dealing with the challenges they encountered, the following themes were derived: 1) Functioning at an Optimal Level by Engaging in Favorable Plans of Action; (2) Strategizing Ways to Promote Transfer of Learning; (3) Exuding Optimism and Providing Avenues to Facilitate Distance Learning; and (4) Making Room for Students to Submit Well-thought-out Outputs. With respect to the insight gained by the participants into the challenges they came up against and into the coping strategies they utilized to face up to those challenges, the following themes were attained: (1) Flexible and Enthusiastic Teaching Lead to Successful Lesson Planning; (2); Communication, Creativity, and Corroboration Foster Comprehension Amongst Students (3) Communication and Patience Cultivate an Environment Conducive to Modular Distance Learning; and (4) Devising a Course of Action for Evaluating Students' Work is Propitious. Indeed, the teachers had the fortitude to face the difficulties that the New Normal brought and discovered that communication, creativity, corroboration, patience, and a plan for evaluating students' outputs could all contribute to effective teaching and learning.

#### Keywords— modular teaching modality, New Normal, Philippines, teaching English

#### I. INTRODUCTION

The importance of English has escalated as it has become the means of communication in the world in various circumstances [18, 5]. Without a doubt, every adolescent needs to be proficient in English [4]. The call for efficient and effective teaching of the English language skills must be heeded, and it may necessitate a carefully designed pedagogy [30]. The COVID-19 pandemic has placed the whole world in the New Normal, which refers to how the all-important facets of human life have been altered [9] and has engendered ramifications specifically in the teaching-learning process. In the New Normal, conversions of information to digital formats imposed schemes for doing tasks and gaining knowledge and where education was compelled more into integrating technology into teaching-

learning practices, sustained by the dominant market mindset and commercialism (25). It is important to recognize the enormous concern that instructors have gone through during the pandemic (5), which has led to the New Normal. (21) revealed that secondary grammar school teachers experienced a lot of stress when classes were significantly disrupted by the closure of schools during the COVID-19 pandemic.

(26, as cited in 23) identified stressors that cause tension among educators, namely: (1) Teachers lack the means to talk through pandemics and qualms about their learners' dearth of technological skills; (2) Extremely perturbed and despondent learners who cannot entirely pay particular attention to learning and who are concerned about the untypical closure of schools; (4) Parents who are

troubled with the disadvantages that the pandemic has engendered, who are not prepared to tutor their children about technological tools and novel educational practices, and who are attempting to balance work and home education; and (4) Continuance of positive student-teacher relationships and challenging online collaborative learning socialization.

The survey on English language teaching and Covid-19 that the British Council conducted in over 150 countries from April 2020 to May 2020 revealed that the teachers were interested in keeping students motivated, ensuring that lessons run smoothly without disruptive behavior from students, assessing students' outputs from a distance, involving underprivileged persons, the welfare of both the student and the teacher, poor or no internet connection, getting students ready for examinations, apprehensions about students cheating, helping students become totally responsible for their learning, dearth of appropriate tools for teachers and learners, guidance on designing online lessons and online tasks, and preparation that takes a great amount of time [7].

In the Philippines, both private and public schools are confronted with the following challenges in the New Normal: inaccessibility to and expensiveness of computers and computer programs, compliance with health and safety protocols that govern modular learning without the internet, construction of teaching materials for online learning, a lack of readiness in employing teaching methods for online learning, difficulty in checking and assessing the performance of students, the effects of problems at home on online learning, increasing challenges to the mental, psychological, and social health of teachers, students, and parents, and an acceptance that unforeseen circumstances may arise every time a class resumes [4].

Few studies paid rapt attention to lesson preparation, lesson delivery, modular teaching modality, and assessment of students' outputs in the New Normal. Therefore, it was reckoned gainful to conduct this study, which can provide information about the experiences of high school teachers teaching English in the New Normal.

#### **Objectives of the Study**

This study aimed to determine the experiences of public High School teachers of English in the Philippines during the School Year 2020-2021. Specifically, this study intended to identify their challenges, coping strategies, and insight into their experiences in terms of lesson preparation, lesson delivery, modular teaching modality, and assessment of students' outputs.

#### II. MATERIALS AND METHODS

The narrative research design, which aims to "unravel consequential stories of people's lives as told by them in their own words and worlds" [24], was employed in this study. As a method of analysis, the six-step guide of [6] was used. Thematic analysis is "a method for identifying, analyzing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail" [6]. In this study, themes within the data gathered (participants' responses) were identified, analyzed, and presented to unravel the experiences of six participants who were the only teachers of English (aside from the researcher) in the school where this study was conducted. [13] asseverated that "an extremely large number of articles, book chapters, and books recommend guidance and suggest anywhere from 5 to 50 participants as adequate."

#### III. RESULTS & DISCUSSION

The following themes vis-à-vis each research objective are presented.

#### A. Challenges Encountered in Teaching English to High School Students in the New Normal

The participants came up against situations that entailed mustering their wits to be able to teach English to high school students in the New Normal.

# 1. Preparing Learning Activities that Best Suit Students' Needs

Likewise, [29] held that teachers in the New Normal had to make sure that students learned by adapting lessons to the new teaching modality.

#### 2. Finding Ways and Means to Reach Out to Students

[27] also found out that public school teachers during the COVID-19 pandemic experienced a dearth of resources to communicate with their students. Similarly, [1] discovered that communication levels among students and teachers dropped. Moreover, [19] revealed that to their participants, reaching out to students and parents was a challenge.

#### 3. Lack of Direct Supervision Engenders Unanswered Retrieved Modules or Unreturned

#### **Modules**

[11] revealed that their respondents who were high school students wrestled with studying their modules by themselves. Moreover, the respondents' parents were not equipped with knowledge that could guide their children as they worked on their modules. According to ten secondary school teachers in the Philippines, module preparation was

time-consuming, printing materials were scarce, and the time and assistance for printing modules were not sufficient.

#### 4. Ensuring the Authenticity of Students' Answers

Anent to supervising students' performance, ten secondary school teachers who utilized modular teaching found it difficult to communicate with their students and could not also establish the authenticity of their students' Moreover, students could not submit their works. accomplished modules on the deadlines set, some modules were unnamed, some modules were submitted with incomplete answers, time for checking students' outputs was not enough due to the need to accomplish other tasks, and students had low scores or indecipherable penmanship [9]. In Malaysia, ESL teachers were confronted with students' underperformance [22]. [17] revealed in their study that students committed dishonest acts in regards doing their outputs and that students had a hard time submitting their outputs. Likewise, [16] found out that their teacher-participants could not establish the veracity of their students' answers in modules.

#### B. Coping Strategies Employed in Dealing with the Challenges Encountered in Teaching English to High School Students in the New Normal

Amidst the challenges in teaching English to high school students in the New Normal, the participants availed themselves of ways they knew would embolden them to get through.

## 1. Functioning at an Optimal Level by Engaging in Favorable Plans of Action

By the same token, [9] held that education stakeholders should work hand in hand and should be ready with plans to deal with the issues that plagued the teaching-learning process during the COVID-19 pandemic. [28] divulged that secondary teachers from various content areas needed to make adjustments in their lessons in the New Normal since they believed that such modifications would have a strong impact on the creation and continuous delivery of lessons, and on the assessment of student learning.

#### 2. Strategizing Ways to Promote Transfer of Learning

Correspondingly, English as a Foreign Language (EFL) teachers in Chinese universities believed that integrating traditional teaching in online teaching could be a coping mechanism [15]. [12] and [16] revealed that their teacher-participants regarded collaboration and peer mentoring as their coping strategies. [28] revealed that secondary teachers from different content areas in one school in the Midwest region in the United States of America adjusted their lessons to the New Normal, which

they believed could have an effect on the delivery of lessons.

# 3. Exuding Optimism and Providing Avenues to Facilitate Distance Learning

[2] divulged in their study that novice teachers used coping mechanisms to obtain a state of psychological and spiritual calm in teaching in the New Normal. Relatedly, [23] found out that language teachers maintained positivity during the COVID-19 pandemic. [12] revealed that secondary teachers were open to changes that were linked to distance learning and worked hand in hand with their students' parents.

#### 4. Making Room for Students to Submit Well-thoughtout Outputs

The teacher-participants in the studies of [12] and [16] found time management to be a useful coping strategy. [27] discovered that teachers would communicate with students and understand the New Normal situation for educational goals to come to fruition.

# C. Insight Gained into the Challenges Encountered and into the Coping Strategies Employed in Teaching English to High School Students in the New Normal

The participants had considerable latitude in obtaining insights into the challenges that they encountered and the coping styles that they put into practice in teaching English to high school students in the New Normal.

# 1. Flexible and Enthusiastic Teaching Can Lead to Successful Lesson Planning

According to [27], adaptability to and consideration for differences in how students comprehend, react to, and handle varying circumstances in the New Normal were adjudged by public school teachers pivotal in deciding on lessons in advance. Likewise, taking into account the multiple intelligences of students during lesson planning was recognized by English teachers in the southern part of the Philippines [8].

# 2. Communication, Creativity, and Corroboration Foster Comprehension Amongst Students

In fifteen Moroccan universities, professors regarded training for the use of technological tools as vital in aiding students to learn [14]. Correspondingly, [21] found out that three hundred eighty teachers from Germany gave credence to digital skills that could stimulate their interest in using technology for remote teaching during the pandemic. By the same token, online teachers from two private schools in Nepal considered sufficient trainings on the use of Information and Communication Technology as vital in engaging in a teaching modality other than On-Campus teaching modality.

# 3. Communication and Patience Cultivate an Environment Conducive to Modular Distance

#### Learning

In Indonesia, English teachers regarded face-toface teaching as a positive teaching modality compared to online learning when it came to technological issues, student participation, and social exchange [20]. Meanwhile, [14] discovered that students and teachers found face-toface instruction to be more interesting than online learning.

# 4. Devising a Course of Action for Evaluating Students' Works is Propitious

[12] and [16] revealed that their teacherparticipants believed that time management helped them determine the exact time to check students' outputs.

#### IV. CONCLUSIONS

The following conclusions were drawn from the findings of this study.

- 1. The teachers believed that they must understand that the current teaching-learning situation entails creating learning
- activities that are appropriate for students' educational needs.
- 2. The teachers mustered up their courage to put up with the challenges that the New Normal brought about.
- 3. The teachers had a deep understanding of the challenges and coping strategies in teaching English in the New Normal.

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# Reconstructed Learning Activity Sheets (LAS): Its Effect on Students' Performance in Mathematics

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#### Abstract

New normal education changes the usual setup of the teaching-learning process between the students and the teacher. Reconstructed Learning Activity Sheets (LAS): Their Effects on Students' Performance in Mathematics. The study tries to find the gap in the students' problems when answering their activities in the modules. The respondents of this study are the Grade 7 - Sampaguita students of Calatrava National High School enrolled during the School Year 2021 – 2022. The students were grouped by controlled and experimental through simple random sampling, in which each group was composed of 22 students. Utilizing Posttest Only Control Group Design in the whole duration of the third quarter for the School Year 2021 – 2022, wherein the students in the control group were given the Learning Activity sheets from the DepEd while the experimental group Reconstructed Learning Activity Sheets. The basis of the student's performance in this study is the Third quarter grade of the students comprising the development in their Summative Test and Performance Task. The result shows that students in the experimental group obtained a higher mean value than the control group. Based on the results, there was a significant difference in students' level of performance in Mathematics in the control group and experimental group. The study signified that Reconstructed Learning Activity Sheets (LAS) comprising activities with Interleaved Approach could increase students' performance.

Keywords— Performance of Mathematics, Learning Activity Sheets (LAS), and Reconstructed Learning Activity Sheets (RLAS).

#### I. INTRODUCTION

Mathematics plays a vital role in one's daily life. To master other areas of discipline, an individual must master the art of Mathematics. According to Mazana et. al (2019), despite explaining the importance of Mathematics, today's students still have negative attitudes toward the subject. Most students think Mathematics is a boring subject, and it is difficult to memorize and understand formulas (Scarpello, 2007). It is a common notion among those students who are mathematically declined.

The change in the form of education started when COVID – 19 pandemic became a threat to the lives of many (Ambayon, 2020). Furthermore, the absence of face–to–face learning in the educational system of the country brought many changes not only in the life of the students but also in the teachers and the administrators in the Educational sectors. In addition, the Department of Education developed Basic Education Learning Continuity Plan to ensure that education in the country will not stagnate amid the COVID-19 threat. Various learning delivery

modalities were provided, like TVI, RBI, online distance learning, modular distance learning, and blended learning.

Additionally, schools can use any of the delivery methods depending on the resources they have available and the local and institutional limits. Most of the country's schools have adopted modular distant learning as one of the modes of learning delivery. Students were also given as much responsibility as possible to study on their own, and queries and questions about the lecture received a limited number of answers. Instantaneous reinforcement excites students and piques their interest in the unconstrained self-learning approach.

At Calatrava National High School, where the researcher conducted her study, the school adopted the Modular distance learning mode of delivery. The parent or Guardian is the one who gets the modules from the teacher, and after a week, they will be retrieved from them with the expected answers from the students. The usual output of students' responses was copied from the answer key from the modules. With 3-4 modules given to the students in

Math subject only per distribution, the students had difficulty studying the module and answering all the activities and exercises without relying on the answer key. These behaviors result in students' low scores in their activities. With this usual scenario, the researcher is trying to find a way in which it will be easy for the students to learn the lesson since it was drafted in a way that multiple competencies were combined in a single LAS. The activities were designed so that all the competencies would be met.

The researcher used the Interleave Approach in making the activities in the Reconstructed Learning Activity Sheets (LAS). According to C.S. Pan, Interleaved practice is learning two or more related concepts or skills. Instead of focusing exclusively on one idea or skill at a time, it can be helpful to alternate between them. With this approach, the students will learn more than one competency. Interleaving proposes that for learning two or more related topics or concepts, it is better to alternate between them rather than focusing exclusively on one subject or idea at a time. For instance, if a student is learning about the short-term difficulties of pollution in a geography project, the student would also study how to bring improvements in energy supply on the same day by mixing the two topics or switching back and forth between them (Rohrer, 2012).

Learning Mathematics must be pleasurable and motivating (Candelario-Aplaon, 2017). Valle (2011) cited that Mathematics teachers should employ welcoming, stimulating, and empirical approaches to help students enjoy and learn the subject's content. Also, it has been an observation of the researcher that students find it hard to answer activities, especially problems in Mathematics, and it was then found out that it was rooted in their difficulties encountered in performing basic skills in Mathematics. Since Mathematics principles and concepts are precise, mathematics teachers should not only have talents in using teaching strategies. Still, they should also know that among these strategies best develop the understanding of students' mathematical thoughts, according to Castillo (2012).

In the Philippines, mathematics is a general education subject in primary and higher education where learners are expected to gain an understanding and appreciation of its principles as an applied-using appropriate in problem-solving, critical thinking, technology communicating, reasoning, making connections, representations, and decisions in real life (K to 12 Basic Education Curriculum). Aksan (2021) mentioned that the significant subject is a need that students will not only understand the concept but will be able to apply it in reallife situations. Teachers, parents, and kids all faced extreme hardships due to the COVID-19 pandemic. Additionally, the researcher thought the teaching-learning process in new

normal education impacted students' performance, especially when using a modular learning approach to mathematics due to the lack of face-to-face interaction with the teacher and the full modular learning delivery mode.

The researcher designed an activity that will help the students to lessen their burden in answering problems in Mathematics. Reconstructing the Learning Activity Sheets (LAS) using the Interleave practice of making activities is what the researcher designed. The topics on the said instrument were based on the Essential Learning Competencies (MELCs) developed by the DepEd to ensure that the students will have the essential skills that they will need.

The researcher was compelled to undertake action research to ascertain students' performance in math using rebuilt Learning Activity Sheets (LAS) with Interleave practice of activities as he is currently seeking the gap of the difficulties given earlier.

Statement of the Problem

The main purpose of this study is to determine the effect of Reconstructed Learning Activity Sheets on students' Performance in Mathematics at Calatrava National High School, S.Y. 2021-2022.

Specifically, this study sought to answer the following questions:

1. What is the level of students' Performance in Mathematics in the control group and

the experimental group in the implementation of Learning Activity Sheets?

2. Is there a significant difference in the level of students' Performance in Mathematics

in the control group and experimental group?

#### **Hypothesis**

From the statement of the problem, the null hypothesis is derived:

There is no significant difference in students' level of Performance in Mathematics in the control and experimental groups.

#### II. THEORETICAL FRAMEWORK

This study was anchored on Jean Piaget's Cognitive Learning Theory. Cognition refers to the mental process of absorbing and retaining knowledge. Further, it encompasses understanding through thought, experience, and sense. Cognitive learning refers to active and long-lasting learning. This type of learning is generally very engaging, immersing learners in various processes, maximizing brain productivity, and learning new things.

The cognitive learning process is based on individuals cognitively processing input to result in behavior. It has been found that mental processes include many elements, including Organizing, Interpreting, Categorizing, Attention, Observing, and Forming generalizations (McLeod, 2018).

Experts in Cognitive Psychology believe interleaving improves the brain's ability to discriminate or differentiate between concepts and fortifies memory associations. Along with the application of spacing, schools are increasingly seeing this as an effective strategy for exam preparation. Interleaving may seem more complicated than studying a single topic for a long time, but it is more beneficial in the long run (Kornell & Bjork, 2013).

In the study conducted by Kornell & Bjork (2013), they investigated whether interleaving can be used to improve the performance of students. They compared three groups: Students who studied a single topic; students who studied two topics simultaneously; and students who studied two topics sequentially. They found that students who studied two concurrently performed significantly better than those who learned only one topic. In another study conducted by Rohrer (2012), he examined the effect of interleaving on students' performance. He found out that students who were taught using interleaving outperformed those who were taught using blocking.

In Jerome Bruner's Theory of Cognitive Development (1966), the concern was with how knowledge is represented and organized through different modes of thinking (McLeod, 2019). Furthermore, Cognitive psychologists believe interleaving improves the brain's

ability to differentiate or discriminate between concepts and strengthens memory associations.

Interleaving is a teaching strategy that has pupils acquire ideas in many contexts and at various times. Since students are not only memorizing numbers and facts, this strategy aids in their information retention. They are genuinely considering the information and applying it to actual circumstances. Therefore, while teaching a concept, you should explain it before moving on to another. Later, return to your initial idea. Repeating this procedure throughout the semester provides students with numerous opportunities to comprehend the subject.

In this study, the researcher reconstructed a learning activity sheet where students were assigned to study examples and answer the activities. These activities were designed using interleaving practice.

#### III. CONCEPTUAL FRAMEWORK

In this study, the researchers wanted to make a learning material that may enhance students' performance in Mathematics. Reconstructed Learning Activity Sheets (LAS) with interleaving practice will be given to students in the experimental group during the distribution of modules in the modular learning modality. While the control group will have the DepEd-released Learning Activity Sheets (LAS).

Figure 1 shows the schematic diagram of the effect of Reconstructed Learning Activity Sheets on Students' Performance in Mathematics.

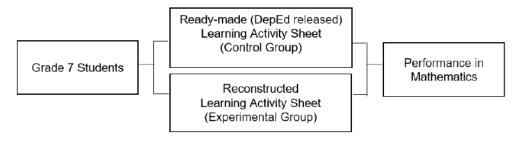


Fig. 1

#### Research Design

The Posttest, Only Control Group Design, was utilized; according to Renbarger and Morgan (2018) that the posttest-only control group design is a research design in which there are at least two groups, one of which does not receive a treatment or intervention. Data are collected on the outcome measure after the treatment or intervention. The group that does not receive the treatment or intervention of interest is the control group.

The said research design was conducted on one section of Grade 7 students of Calatrava National High School. The control group was given the ready-made Learning Activity Sheets (LAS), while the experimental group was given the reconstructed Learning Activity Sheets (LAS). In the One-Group Posttest Only research design, specifically the posttest—only control group design, the subjects are randomly selected and assigned to 2 groups (control and experimental), and only the experimental group was treated.

#### **Research Instrument**

Learning Activity Sheets (LAS) reconstructed by the researcher were used to gather the necessary data for this study. The Learning Activity Sheets (LAS) comprised activities using the Interleave approach.

Furthermore, the Reconstructed Learning Activity Sheets (LAS) were subjected to face validity. A group of experts in the field of Mathematics were asked to evaluate the content of the Reconstructed Learning Activity Sheets (LAS), and will be rated using Good and Scates. The LAS and the evaluation sheet were sent to the evaluators through email. Moreover, the experts were asked to write their comments, suggestions, and recommendations for the improvement of the said instrument. The validity index of the tool is 3.83.

The instrument used in the study, which is the basis of the result, were the summative tests and performance tasks from the DepEd. The reliability and validity test was not administered since it is a standardized test given by the Division of Negros Occidental.

#### **Data Gathering Procedure**

A letter of permission was sent to the school head of the target school, specifically the Calatrava National High School. When the permit was granted, the researchers started conducting their study on the target participants after the parents signed the consent form allowing their child to be of the study. The researcher gave reconstructed Learning Activity Sheets (LAS) to the experimental group, and the ready-made Learning Activity Sheets (LAS) released by the DepEd to the control group. This was applied to the whole period of the third quarter, which is eight weeks.

The researcher distributed the Learning Activity Sheets (LAS) to the parent/guardian of the students in the same manner as the normal set-up during the scheduled distribution of the modules from February 7, 2022 – April 8, 2022. The participants were given four weeks to answer the Learning Activity Sheets (LAS) assigned, and there was an exchange of modules. The distribution and retrieval of modules happened for eight weeks of the third quarter. The summative test and performance task was given after the fourth week.

The researcher recorded the participants' scores after administering the summative test and performance task.

#### **Data Analysis**

The following statistical tools were used in consonance with the specific problems presented in this study.

For problem number 1, which aims to determine the level of performance of the Grade 7 students, the mean and standard deviation was used. The level of Performance in Math of the participants was categorized as "Outstanding / Very High" to "Did Not Meet Expectation / Very Low," with varying degrees in between. Below is the guide used to interpret the level of performance in Mathematics.

Guide used to interpret the level of performance in Math

Grading	Description
90 – 100	Outstanding / Very High
85 - 89	Very Satisfactory / High
80 - 84	Satisfactory / Average
75 - 79	Fairly Satisfactory / Low
Below 75	Did Not Meet Expectations / Very Low

For problem number 2, which aims to determine the significant difference in students' Performance in Math in the control and experimental groups, the Independent Sample t-test was employed with a 0.05 significance level.

#### IV. RESULTS & DISCUSSIONS

Table 1 shows the level of performance in Mathematics of the grade 7 students in the controlled and experimental groups. Both controlled (M = 91.59, SD = 3.948) and experimental (M = 94.00, SD = 2.878) groups have an "Outstanding" level of mathematics performance. However, the mean average value of the experimental group is higher than the mean value of the controlled group, and the standard deviation of the experimental is lower than the standard deviation of the controlled group, which indicates that the data are clustered around the mean. This signifies that Reconstructed Learning Activity Sheets help the Grade 7 students in the improvement of their level of performance in Mathematics.

This study corroborates with Carvalho & Goldstone (2015) that using an interleaving format is more effective than blocked practice for active learning. Thus, based on the result, the experimental group that used the Reconstructed Learning Activity Sheets comprising the activities with Interleaved Approach had a positive outcome. At the same time, giving students activities with multiple lessons comprising different types of tests is more effective than the usual repetitive or blocked approach, which is the normal school setup that we mostly encounter.

Table 1 Level of performance in mathematics of controlled and experimental grouped in the implementation of learning activity sheets

Participants	N	M	SD	Interpretation
Controlled group	22	91.59	3.948	Outstanding
Experimental group	22	94.00	2.878	Outstanding

Note: 90 – 100 Outstanding/Very high, 85 – 89 Very Satisfactory/High, 80 – 84 Satisfactory/Average, 75 – 79 Fairly Satisfactory/Low and, below 75 Did Not Meet Expectation/Very low.

Table 2 shows the significant difference between the controlled and experimental groups in the level of performance in Mathematics in the implementation of the learning activity sheets. The mean difference between the two groups is 2.41 since the average of the experimental group is 94.00 while the average of the control group is 91.59. The result shows a significant difference in the level of performance in Mathematics of controlled and experimental groups [t (42) = -2.313, p = 0.026] at a 0.05 significance level.

Hence the null hypothesis, "There is no significant difference in students' level of performance in Mathematics in the control group and experimental group," was rejected.

The result validates the study of Mayfield and Chase (2002) that with a practice schedule provided, interleaved practice produces superior test scores. Also, the study of Szpiro, Wright, and Carrasco (2014) state that training trials focused on one skill are interspersed with training trials on another developing skill. Thus, practicing students with a different approach to learning is an advantage compared to the common setting in which they grew up. This also implies that the use of Reconstructed Learning Activity Sheets comprising the activities with Interleaved Approach helps students to improve their performance in Mathematics.

Table 2 Difference in the level of performance in mathematics of controlled and experimental groups in the implementation of learning activity sheets

Participants	M	df	t	p
Controlled group	91.59	-2.313*	42	0.026
Experimental group	94.00	-2.313		

<sup>\*</sup> p < 0.05

#### V. CONCLUSIONS

The result of the study shows that the level of performance of the controlled and experimental groups is both outstanding. However, the average of the experimental group is higher compared to the control group. The null hypothesis, "There is no significant difference in students' level of performance in Mathematics in the control and experimental groups," was rejected.

Reconstructed Learning Activity Sheets (LAS) have a positive impact on the mathematics performance of students in Grade 7, according to the study's findings. This suggests that Reconstructed Learning Activity Sheets (LAS), which include exercises using the Interleaved Approach, can help students perform much better in mathematics. Critical thinking skills are more likely to be developed in students who participate in various learning activities. This shows that using different skills to execute a task can improve a student's performance.

#### VI. RECOMMENDATION

In light of the findings and conclusions drawn from the study, the following recommendations are made: Curriculum planners may consider integrating Interleaved Approach in making their reference materials.

School Administrators may encourage mathematics teachers to innovate strategic plans to improve the student's performance in Mathematics.

Mathematics teachers can maximize the use of Interleaved Approach in making their test materials so that the students will develop multiple skills.

Students may design their strategy to use the references and test materials developed by their teachers to help them improve their performance in Mathematics.

The researcher can encourage his fellow mathematics teachers to utilize Interleaved Approach in making students' activities and exercises.

Future researchers can examine the effectiveness of Interleaved Approach when used in the teaching-learning process.

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# The Structural change in the International System: From a Modified Version of Neorealism

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#### **Abstract**

This paper analyzes how Waltzian neorealism by some modifications can explain and predict the structural change in international system. To answer this question, we extract the main concepts of waltz definition of the system and its critics then draw the theoretical scheme to find limitation and make a synthetized modifications on waltz international system to make it applicable to study structural change in the system. Our results showed waltz theory weaknesses in the first two elements of the structure. Results also show that the international system defined by waltz needs some modifications by adding up the structure of the process to exit from the problem of having no attention to historical and social basis of international outcomes. From a modified version of neorealism, this study emphasizes the need to take into account the impact of the structure of the process to the structural change of the system along with opening the first two element of the structure to change by taking into account the principle of segmentation and separateness to functional specification.

#### Keywords—Structural change, International system, the structure of the process, Modified neorealism

#### I. INTRODUCTION

Human social life in general is undergoing change. Therefore, the stability and continuity of the structures is not primary. Change occurs in two types: gradual and revolutionary structural. The collapse of the Soviet Union and the end of the Cold War, the collapse of the feudal system after the thirty-year wars and the beginning of the modern international system, or the end of the classical colonial system are such developments. Depending on different points of view, some of these cases are only gradual and intra-systemic changes, and others take them as structural change and transformation of system's structures. Buzan and Jones state that the focus of the great debates of international relations is the issue of change (Buzan et al., 1993). Some scholars refer to the era after the Cold War and the end of the bipolar system as "the era of post-international politics," "era of change," "fundamental change," or "transformation in the international system." (Koslowski & Kratochwil, 1994; Rosenau, 1990; Rosenau & N, 1997; Sakamoto, 1994)

Change and continuity are both characteristics of the structure of the system. Both structural change and continuity are important and affect our understanding of the nature of order in the international system. Some views focus more on change and alternative order in the international system. Some other views focus more on the structural continuity of the system. The first point of view is revisionist and the second point of view is a point of view seeking the status quo.

The criticism of many experts to the theory of neorealism is the focus of this approach on the existing international system. They claim that this theory focuses more on the structural continuity of the existing system and order. They also claim that Waltz's theory of international politics is not able to predict structural changes in the international system. In other words, neorealism is a theory for analyzing the international system and the existing structure and not the alternative structure and system. (Ashley, 1986; Buzan et al., 1993; Cox, 1986; Ruggie, 1986)

Neorealism is the positivist and structural version of realism. This theory refers to the structure of the international system as the origin of international outcomes. This view is one of the outcomes of the second great debate of international relations. In fact, neorealism is a response to the debate of "traditionalists" on one side and "behaviorists" or "scientism" on the other. Behaviorists criticize traditional realists' focus on philosophical and historical foundations. Traditionalists focus more on human nature in its state of nature as the source of war and conflict. Behaviorists claim that this hypothesis is not provable with experiments similar to the

method used in science. Therefore, philosophical and historical foundations do not have a scientific basis. In response to this criticism, Waltz changed the classical realist foundations to the structural foundations in the international system. Therefore, he considers the structure of the system as the source of international outcomes. (Quinn & Gibson, 2017)

The neo-realist perspective has also received many criticisms from post-positivist approaches. The confrontation between positivists and post-positivists is the focus of the third great debate in international relations. Rationalists, including neorealism, accept the complexity of the social world, but prefer to measure and analyze observable issues. They are positivist in method. On the other hand, reflectivists or post-positivists are against these positivist methods of knowledge production. They advocate research based on interpretive and subjective analysis and believe that values are a part of observation. (Kurki & Wight, 2013)

One of the most important criticisms against neorealism is its neglect of the "possibility of change" in the structure of the system. Critics claim that this theory is too static. Therefore, the view of neo-realism is not able to explain and predict changes in the international system. Another criticism is that neo-realism is an approach "free of time and space." They state that social reality belongs to the historical context. The claim is that we cannot generalize a theory and law to the whole by abstracting reality from its historical context. In addition, we are not able to understand the whole from a limited and abstract part of the whole "free of time and space." (Cox et al., 2001; Cox, 1986)

Each of the major international relations debates focuses on one aspect of change. "Human nature" as the first image and "the type of states" as the second image are the focus of the first great debate. "The structure of the system" as the third image is the focus of discussion in the second great debate. Finally, the "structure of process" is the main topic of the third major debate on structural change and transformation (Buzan et al., 1993). The limitation of each perspective is due to the onedimensional analysis of the international system. The purpose of this research is to present a "modified version of the neorealism perspective." This modification includes concepts taken from different perspectives, especially from the critics of neorealism. This research seeks a more comprehensive version of neorealism to provide a conceptual framework. This framework offers the possibility of structural change. It also shows the effect of changes in the structure of the process on any changes in the structure of the system and interacting units.

Statement of the problem: Change is an important feature of the international system, and the focus of all major debates in the field is the issue of change. When we look at the international system, we encounter two types of changes. One is gradual and the other is the transformation of the system. The transformation of the system is a structural and revolutionary change. To understand this type of change, we refer to Waltz's theory of international politics. Waltz states that a change in ordering principle and in the functional specifications is too rare and if it happens, it is a revolutionary change. The change can be in the third element of the structure "distribution of capabilities." (Waltz, 1979) As we know, in his theory, Waltz proposes the change within the system and does not consider a place for the transformation or structural change of the system. Neorealism's critics also claim that Waltz's theory is too static. Therefore, this theory is unable to explain the change in the first two elements of the structure of the international system. They claim that Waltz closed these two parts against any change. Therefore, this makes the theory that could not predict any structural change (Ashley, 1986; Ruggie, 1986). Others point to Waltz's lack of attention to the historical context and social forces as the weakness of his theory in predicting change and the possibility of its occurrence. (Cox, 1986)

By examining the points of view of Waltz's critics, this research tries to identify the limitations of Waltz's model of neorealism in explaining the structural change of the system. Therefore, the issue of structural change, its possibility and its origin based on the modified version of neorealism, is the issue of this research. In other words, the problem of this research is to show how this theory can explain and predict the structural changes of the international system by making reforms and moving towards a comprehensive model of the international system's structures.

**Research Questions:** Several questions drive this research. The main question is, based on the modified version of neorealism, how does structural change occur in the international system? What is the influencing factor for this change? In addition, why is it important to identify the component influencing change in the structures of the international system as a whole?

The sub-questions of this research are as follows; what is the limitation of Waltz's neorealism in explaining the problem of structural change? How does this research solve this limitation? In addition, why is it necessary to remove the limitations of neorealism to explain the structural change of the international system?

**Research objects:** The first objective is to explain the way of change in the structures of the international system as a whole based on the modified version of neo-realism in the form of the conceptual framework of this research. In fact, identifying the elements influencing the change of the structures of the international system as a whole is the goal of this research.

Identifying and examining the limitations of neorealism to explain structural changes in the international system is another goal of this research. The Waltz model of neorealism and the point of view of critics of Waltz in the book edited by Robert keohane under the title "Neorealism and Critics" is the basis of this research. This research proceeds by examining the limitations raised by critics in the direction of explaining and solving them. Presenting the theoretical framework of the modified version of neorealism is a tool to investigate and achieve these goals. Clarifying the importance of these modifications for understanding the structural changes of the system is also one of the goals of this research.

The scope and limitation of the research: The focus of this research is on the structures of the international system as a whole. Therefore, it will not focus on other levels of analysis outside of this basis. The focus of this research is on the political sector of the structure of the system. In this research, we do not discuss other sectors such as societal, economic, or cultural sectors. In other words, the scope of this research is the defined boundaries of other social sciences and it does not enter the levels of analysis based on other social sciences.

This research bases its work on Waltz's theory of international politics. On the other hand, considering the point of view of critics of neo-realism, it seeks to create a modified theoretical framework and conceptual framework for this research. In this way, the point of view of the critics is to start modifying the original version of neorealism and apply it to explain the structural change in the international system. The reason for applying Waltz's theory is its structural point of view.

Significance and contribution: Cox, Ruggie, and Ashley emphasize the historical context and social forces. They do not consider the structure of the system and the structure of the interacting units as constituent parts of the international system and ignore the importance of these structures in structural change (Ashley, 1986; Cox, 1986; Ruggie, 1986). Buzan and others consider the political structure with other structures of the system (Buzan et al., 1993). Therefore, they ignore the boundaries of different fields of social sciences. Holsti emphasizes the institutional dimension of change. He considers ideas, norms, and institutions as components of structural change

(Holsti, 1998; Holsti & Holsti, 2004). Keohane emphasizes on institutions and information flow as a component of change. (Keohane, 1986b) Gilpin examines hegemonic war as a component of structural change and transformation. (Gilpin, 1981)

This research seeks a more complete and comprehensive plan to explain the structural change in the system. A conceptual and theoretical framework that includes all the structures of the international system as a whole based on the modified version of neorealism. This research is an attempt to get a complete picture of the structural change and its possibility in the structures of the international system. Therefore, while focusing on the structure of the system and the structure of the interacting units and the mutual relations of these structures, we will also focus on the process and the historical context.

#### II. METHODS AND MATERIALS

In data collection, this work is library based and has two theoretical and historical parts. The main sources for data collection are Waltz's publication "The Theory of International Politics" and the book edited by Robert Keohane "Neorealism and its critics." Further, we use other books, articles, and other resources related to the topic of structural change. We collect all data from online or library sources.

This study analyzes collected data through qualitative content analysis and theoretical analysis. We seek to analyze and identify the limitations of neorealism. Removing the limitations from this theory provides the ability to analyze and predict structural change. In this way, this research aims to present a modified version of neorealism by adding historical context and process to the structures of the international system.

The level of analysis in this research is structural. This research tries to investigate and explain the nature of change in the international system at the level of the system's structures. In addition, the purpose of this research is to investigate the feasibility of structural change in the international system. This research will plan and present a synthesized and modified theoretical framework in the way of theoretical data analysis. The intended theoretical framework is an attempt to explain the role of other parts of the international system in any structural change.

# III. RESULTS: THE MAIN CONCEPTS OF WALTZIAN NEOREALISM AND ITS CRITICS

In this section, while reviewing the presentation of the conceptual model of Waltz's definition of the

international system and its components, a schematic model of the main concepts and the relationships between them related to each of the critics separately. By extracting these concepts, this research seeks to identify and remove the limitations of neorealism in explaining the structural change of the international system. First, we will start with Waltz's definition of the international system, and then we will examine Waltz's critics separately.

# 3-1. International system in waltz's theory of international politics

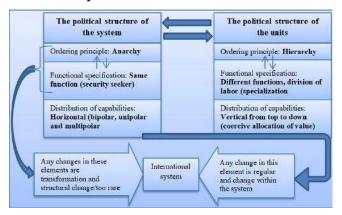


Fig.1: Schematic representation of waltz's theory of international politics "concepts and their relations"

Waltz's definition of the international system consists of two elements. These two elements include the system structure and interacting units. Figure one provides an overview of Waltz's definition. According to Waltz, each of the constituent elements of the system has a political structure consisting of three principles. These principles include the ordering principle, the functional specifications, and the distribution of capabilities. (Waltz, 1979, 2010)

In "domestic societies," Waltz explains, the ordering principle is "hierarchical." On the contrary, this principle is "anarchic" in the "international system." In domestic society, the hierarchical nature of governance differentiates the function of its subjects. On the other hand, in the political structure of the international system, the functions of the units are "similar" and not "different." In the distribution of capabilities, the more or less capabilities of units for a similar function are the case. Great powers are matters. The way to evaluate the power of a unit is by comparing the relational power of different units. On the other hand, in domestic societies, the distribution of capabilities is vertical and from top to down. In other words, in our internal societies, we are facing the coercive allocation of values. (Waltz, 1979, 2010)

Figure one show well that there are two sources of change in Waltz's model. In this model, he discus two types of change. Changes in the first two principles of the Waltz model structure are very rare. If there is a change, it is a revolution and a structural transformation. The change in the third element of the structure of the Waltz model is of its usual and regular type. (Waltz, 1979, 2010)

# 3-2. Limitations of Waltzian neorealism raised by its critics

All of Waltz's critics believe that Waltz's international system theory has limitations. They seek a theory with a more comprehensive explanation of structure. Some of these critics point to another aspect of the structure other than its political aspect. Some explain the interpretation of social forces in the historical context and movements in international relations. They do not accept value-free explanations. Others are looking for the connection between the level of structural analysis of the Waltz system and the level of analysis of interacting units. (Waltz, 1979) In the following, we examine a summary of the points of view of the main critics of neorealism. Below, we made schematic model of the basic concepts of each of these critics. Each of these models presents the concepts and the relationship between them from the author's point of view.(Buzan et al., 1993)

### 3-2-1. John Ruggie point to neorealism

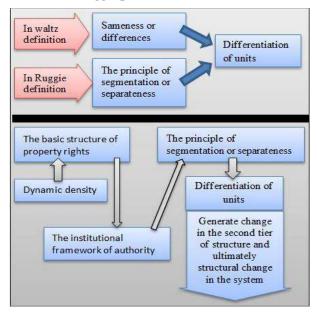


Fig.2: Schematic representation of john Ruggie point to neorealism

According to Ruggie, Waltz borrowed the concept of political structure from Durkheim. This structure in the main model consists of three analytical concepts. These three concepts consist of the ordering

principle, the functional specifications, and the distribution of capabilities. Ruggie states that Waltz do not provide a complete understanding of the concept of political structure and the most important part of this deficiency is the principle of differentiation. Waltz reduces the distinction of units to similarity or difference. To evaluate the units and distinguish them, he focuses on the relative power and ignores the attributive and absolute power. If Durkheim means the distinction of units, he refers to the principle of separation and division. In other words, Durkheim refers to the differentiation of units in such a way that they form parts of a whole in relation to each other. Therefore, any change in the principle of differentiation causes a change in the structure of the system and its transformation. Waltz has closed this section on any changes. The change of the feudal system to the modern system is the result of the change in this principle. Ruggie reiterates that constituent units separate from each other through "differentiation." (Ruggie, 1986)

Ruggie states that the above structure is a "generative structure." According to Ruggie, prestructured layer made by the deeper structure levels affects the structural levels of the surface. He further states that Durkheim's three principles of structure have causal priority as a deeper structural level. Deep structures are "generative" because they produce observable patterns of behavior throughout the system. (Ruggie, 1986)

Ruggie states that Waltz also ignores Durkheim's concept of dynamic density. This concept also determines the change. This concept refers to the three elements of quantity, velocity, and intensity of interactions. As the amount of these three elements increases, we will witness a change in the structure of the system. Globalization results from increased dynamic density. (Ruggie, 1986)

# 3-2-2. Robert Keohane points to neorealism

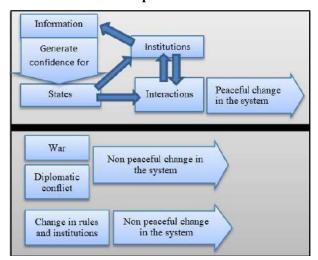


Fig.3: Schematic representation of Robert Keohane points to neorealism

The schematic model of Figure 3 presents a summary of Keohane's concepts and points of view regarding the limitations of neorealism and solutions to overcome these limitations. As shown in this figure, Keohane focuses on the imperfect flow of information in the international context and international institutions. He explains how incomplete information misunderstandings in states and non-peaceful change in the international system. He goes on to explain how information through international institutions can bring about peaceful change. Here, he introduces international institutions as an intermediary for extracting and providing perfect and complete information to states. (Keohane, 1986b)

According to keohane, the three assumptions of neorealism are a good starting point. The first is its attention to a system-level theory focusing on a group of interacting units. The next assumption is that states behave rationally. In addition, the assumption that states try to influence other states. Emphasizing these assumptions, he presents his proposed model for structural research. First, while confirming the assumption that states are the main actors in the world, he focuses on the role of international institutions and non-state actors. Second, while confirming the assumption of rationality for states, he acknowledges the imperfect flow of information as a source of states misunderstanding. The third and last case is the assumption of power seeking and calculation of states in their interests. (Keohane, 1986a)

# 3-2-3. Robert Cox points to neorealism

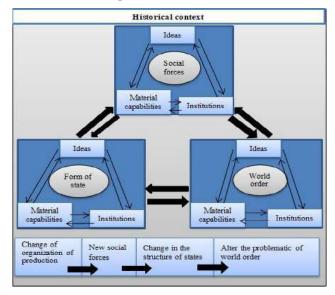


Fig.4: Schematic representations of Robert cox point to neorealism

In the schematic model of Figure 4 presents Cox's definition of historical structures including three categories of forces. As this model shows, the forces in a structure interact. Among the material capabilities, we can mention industries and weapons, which are both productive and destructive. Ideas and institutions are also subsequent forces that reflect the prevailing power relations at their starting point. On the other hand, the historical structure does not reflect the whole world; rather, it indicates a specific field of human activities in its historical totality. (Cox, 1986)

Cox applies the method of historical structure in three levels or areas of activity. The first level of this structure is the organization of production, especially in relation to the social forces created by production. At the second level is the form of states. Finally, the third level is the world order or the specific combinations of forces that determine whether a group of states should run a war or peace. These three levels are interconnected. (Cox, 1986)

In the last part of the schematic model of Figure 4, it presents the effect of changes in the organization of production on the creation of social forces. As seen in this model, new social forces in turn create changes in the structure of states. Moreover, the spread of changes in the structure of states changes the problematic of world order. Social forces, forms of states, and world order are each independently composed of material capabilities, ideas, and institutions. Together, these elements represent a more complete profile of a historical context and process. All influence each other. (Cox, 1986)

According to Cox, neorealism reduces the ability of the state to the dimension of material capabilities. Moreover, it reduces the structure of the world system to the balance of power as a configuration of material capabilities. He goes on to say that neorealism generally rejects social forces as irrelevant to the international system. In addition, Waltz does not distinguish much between the forms of states. Neorealism also places little value on the normative and institutional aspects of world order. (Cox, 1986)

# 3-2-4. Richard Ashley points to neorealism

While criticizing the staticity of Waltz's neorealism, Richard Ashley criticizes the structure itself in this model as a fixed and unchanging structure. He goes on to say that, Waltz underestimates the importance of variation in time and space and emphasizes static rather than dynamic. The schematic model of Figure 5 is a summary of Ashley's criticisms and solutions to neorealism. Ashley points to Waltz's neglect of the agents and his exaggeration in explaining the structure. According to Ashley, Waltz's theory reduces the political leader to the

implementation of the limited rational logic that the system requires of him. According to Ashley, there is a mutual and productive effect between the agent and the structure. In the middle of the model in Figure 5, it shows the historical context and the mutual determination of the agent and the structure. In agents, the change in consciousness creates the motivation to change the structure. In the structure, changes in norms cause changes in restrictions and then agents. (Ashley, 1986)

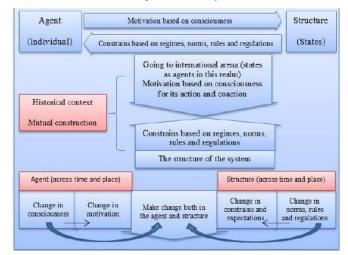


Fig.5: Schematic representation of Richard Ashley points to neorealism

Ashley reiterated that neorealist structuralism was silent on the four dimensions of history. First, it denies history as a movement and reduces history to a closed field. A predetermined structure determines the boundaries of history. Second, by denying the historical significance of practice (praxis), it accommodates all forms of historicism. Thirdly, despite the emphasis on power politics, neo-realism has no understanding of the social foundations of power. Social constraints deny power. In other words, Waltz fails to understand that the will is necessary for power. Finally, neorealism reduces politics to economic aspects under structural constraints. As a result, politics becomes nothing but technique. (Ashley, 1986)

### 3-2-4. Barry Buzan et al point to neorealism

The schematic model of figure six summarizes the point of view of Buzan and his colleagues. He and his colleagues define the international system in two ways. One is the Interhuman system and the other is the interstate system. In both of them, he adds new elements to Waltz's definition of the system. The extended concepts to the Waltz model are "distributive structure" and "deep structure." In inter-human systems, the actors of the system include individuals, non-governmental

organizations and states, and in the interstate system, states are present as interacting units. (Buzan et al., 1993)

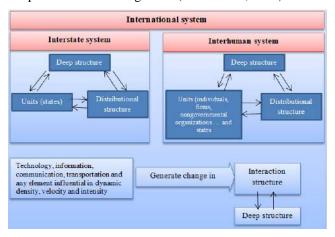


Fig.6: Schematic representation of Barry Buzan et al points to neorealism

They call the third element of Waltz's definition of structure "distributive structure." The distributional structure, like the first two elements of the Waltz model structure, does not have a mutual relationship with them. Any change in this sector usually occurs without any fundamental change in the international system. In other words, the change in power distribution from bipolar to multipolar or unipolar and vice versa has no effect on the fundamental structure of the system. The first two elements of Waltz's model of system's structure constitute the "deep structure." Waltz refers to the function of units in functional differentiation, but the differentiation of roles is also applicable at the unit level. (Buzan et al., 1993)

In the distribution of capabilities, Waltz's model focuses on "relational power." On the other hand, Buzan and his colleagues focus on "attributive power" or "absolute power." While rejecting attributive power, Waltz states that this type of power belongs to the level of units. While introducing "technology," "communication ability", "common norms" and "institutions" as "attributive power", Buzan and his colleagues state that these attributive powers have an impact both at the unit level and at the international level. . "Interactive structure" focuses on attributional power or disaggregated forms of power. The interactive structure gives the theory the ability to observe any changes in this sector that have structural consequences in the international system. (Buzan et al., 1993)

Buzan and others consider the agents under the units as an intermediary between the structure of the system and the structure of the units. According to them, the agents of the interacting unit are facing a double and two-way security dilemma: one security dilemma comes from the inside and another security dilemma comes from the outside, that is, from the international system. Separating power into its components is the first step in making changes. Separation of power increases the possibility of changing the structure of distribution. That is why; we will face different types of political, cultural, social, or technological polarization. (Buzan et al., 1993)

As mentioned above, according to Waltz, the functional distinguishing element of the anarchic structure is not open to change. Buzan and his colleagues believe that by opening this part of the structure of the Waltz model, the structural change caused by this part becomes possible. Therefore, this modification provides new opportunities for change not only in the context of an anarchic system with similar units, but also in the context of an anarchic system with dissimilar units and with different classifications of functional differentiation. (Buzan et al., 1993)

The addition of "interactional capacity" as a new level of analysis is the third aspect of the change. This change makes it possible for structural realism to meet the requirements of a complete systems theory. The capacity for interaction is sensitive to continuous technological, normative, and institutional changes; because instead of the relative weight of relational power, it relies on the absolute qualities of attributional power. (Buzan et al., 1993)

### 3-3. The dynamic of change from a different perspective

In this section, we examine some works related to the issue of change in the international system are examined with a structural approach. As in the previous section, we present the concepts of each expert in the form of a schematic model. The presented models present the main concepts, their relationships, and their impact on structural change in the international system. Robert Gilpin, KJ Holsti, and Jeffrey L. Herrera are selected experts who present the discussion of structural change in the international system. The logic of choosing the above thinkers is their macro and structural view of the theory of international relations and the issue of change.

# 3-3-1. Robert Gilpin's explanation of the international system and change

The schematic model of figure seven presents Robert Gilpin's main points of view and concepts. He introduces an international system consisting of three main components. The first part is that the international system consists of different entities. Among these entities, states are the most important actors in the international system. Then, he continues that other transnational or international actors like institutions may have an important role to play. The second component of his definition is regular

interaction in the international system. The nature, frequency, and intensity of interactions are different depending on the international system. The third and last component of his definition of the system is the type of control. Anarchy is a state, but the degree of control depends on three things. The distribution of power between governments is the first. The second item is the hierarchy of prestige. Finally, the third case is a set of laws and rules that regulate or at least affect how governments interact. (Gilpin, 1981)

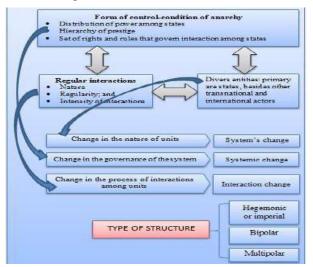


Fig.7: Schematic of Robert Gilpin's explanation of the international system and change

As shown in figure seven, Gilpin introduces three types of structures. These structures include imperial or hegemonic structure, bipolar structure and multipolar structure. In the following, he describes three types of changes: 1. Systems: changes in the characteristics of system actors. 2. Systemic: change in the way a system is controlled. 3. Interaction is the change in the regular processes or interactions of a system. According to Gilpin, change can be gradual or revolutionary. (Gilpin, 1981)

# 3-3-2. K.J Holsti's discussion of the problem of change in the international system

Figure eight provides a summary of Holsti's views on change in the international system. Holsti discusses four indicators of change. These indicators include major events, trends, the structure of the international system and international institutions. He mentions the end of the Cold War as a great event. In his opinion, globalization is an example of a trend-based transformation. Holsti states that the change in the structure of the international system makes the change in power relations between the main actors. In his opinion, change in international institutions is another indicator of change in the system. (Holsti, 1998)

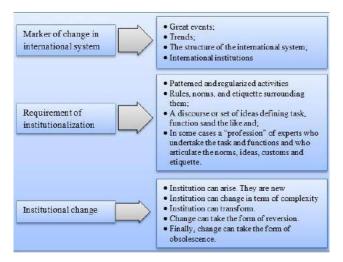


Fig.8: Schematic representation of K.J Holsti about the problem of change in international relations

According to Holsti, four conditions are necessary for institutionalization. The first condition is "patterned and regular" activities. The second condition he wants is the norms, laws, and customs surrounding them. The third condition presented is discourse or a set of ideas that define things like tasks, functions, and features. Finally, the "professional" work of experts who have responsibility and create norms, ideas, customs, and manners is the final precondition he presents for institutional change. (Holsti, 1998)

Finally, as shown in Figure 8, he explains about institutional change. In his opinion, institutions can change in several ways. The first way of change is that institutions may emerge as new mechanisms. In the late 18th century, diplomacy was a new institution in Europe. The second way of institutional change is change in terms of complexity. This change in practices, beliefs, laws, and customs is not fundamental. Instead, it changes the number of activities and agents and the tasks they perform. The third way of change is institutional transformation. This means changes in their basic functions, activities, and rules. While some of their basic features may remain. Monarchy is a good example. The next way of institutional change is reversion. This change occurs when new practices, norms, rules, and ideas revert to forms that are more "primitive." Deinstitutionalization process will be part of this. The last way of institutional change is obsolescence. It is possible that a global institution is already obsolete or about to disappear. According to Holsti, colonialism in its institutional form is no longer alive. The above five possibilities do not occur in the same direction. Every institution has its own history. (Holsti, 1998)

According to Holsti, there are two types of institutions. These two types include procedural institutions such as diplomacy and fundamental institutions such as the state sovereignty system. Fundamental institutions give personality to certain actors and give them a special place. They also define the basic principles, guidelines, and standards governing their mutual relations. In the end, they lead to patterns of action in many ways. Territorial sovereignty, states, and things like that are fundamental institutions of the Westphalian international system. Procedural institutions are practices, ideas, and norms that regulate interactions between individual actors. These institutions address questions about how we treat each other in normal conflicts and interactions. Compared to the fundamental institutions, they are of secondary importance. Dissolving a procedural institution such as war has no effect on fundamental institutions.(Holsti, 1998)

# 3-3-3. Herrera's discussion of the problem of change in the international system

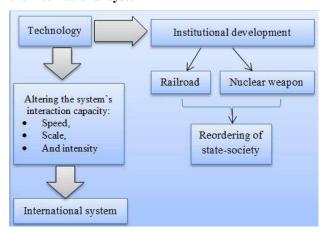


Fig.9: Schematic of Geoffrey l. Herrera's discussion of the problem of change in the international system

The schematic model of Figure 9 provides a summary of the main concepts and relationships between them from Jeffrey 1 Herrera's point of view. According to Herrera, a satisfactory theory of international relations needs logic of change. He states that the logic behind this need is the historical nature of the international system. Herrera emphasizes that technology should be embedded as a component of change in the theory of international relations. He states that societies undergo institutional changes by adopting technology. In this regard, he points to the railroads and nuclear weapons and their impact on redefining the relations between the state and the nation as institutional consequence. Therefore. Herrera emphasizes more on the institutional and political aspects of technology than on its technical aspects. Herrera explains how the organizational differences of each of these technologies in different countries lead to different outcomes. (Herrera, 2012)

According to Herrera, technology entered to all aspects of life in the international environment. In other words, big technologies, while expanding in societies, attach into international structures. In a sense, technology has become a defining part of the structure. He continues to state that technology leads to a change in the "capacity of interaction" in the international system. The speed, scale, and intensity of interactions between states are components of interaction capacity. Herrera explains that the international system based on the communication of the World Wide Web is different from the international system based on the communication of horses and primitive boats. (Herrera, 2012)

#### IV. DISCUSSION

The first issue of this research, as stated at the beginning, is to achieve a modified conceptual framework of neo-realism with the ability to explain how the change occurs in the structures of the international system as a whole. In other words, the primary goal of this research is to identify the factors affecting the structural change in the international system in order to design the abovementioned conceptual framework. In this regard, identifying and examining the limitations of neorealism to explain structural changes in the international system, considering the neorealism of Waltz's model and the viewpoints of his critics is another issue that this research is trying to achieve.

In the previous section, the schematic models represent the main concepts and relationships between them of waltz and his critics one by one. We extract the concepts mentioned in each of the schematic models based on the original text of the book theory of international politics by Kenneth Waltz and the original text of the book Neorealism and its critics edited by Robert keohane. We used some other literature related to experts who have written under the title of change in the international system with emphasis on the macro theory of international relations. We extract the main concepts of these theorists and present them in the form of a schematic model.

Based on waltz's definition of the international system, the two main concepts are the structure of the system and interacting units, or in other words, states. Waltz did not consider a place for process in his definition and referred to it as the attributives of units, which has no effect on international outputs. In other words, according to Waltz's belief, absolute power only has an effect at the level of units and has no role at the level of the structure. Waltz considers each of the components of the

international system to have an independent political structure. The political structure of both the international system and interacting units have three components including ordering principles, functional specification, and distribution of capabilities.

In the discussion of change, Waltz states that the structure of the system in the first two elements has inverse relationship to the political structure of interacting units. In other words, while the international system's structure is anarchic in ordering principle, it is hierarchical in interacting units. Functional specifications as second principle in the international system under anarchy and security dilemma refer to same functions. At the other hand, this function in the units under prepared security and hierarchical authority from top to down, refer to specialization and different functions. Therefore, any change in the first two elements has a revolutionary effect and complete transformation in both components of the system. Waltz states that changes in these two elements are very rare due to the above reasons. What remains open to change in Waltz's definition is the third element or the distribution of capabilities. In this section, the relative or relational power is the subject of discussion, which is also an indicator for evaluating the power of the states or interacting units.

The first and almost the most important problem with Waltz's model is that the first two elements are "closed" to change. In this section, we can mention the constructive criticism of John Ruggie. As Ruggie states, regarding the functional specifications, Waltz has a misunderstanding and instead of considering the principle of separation and segregation of units and the linking index of units in a whole, he focuses on the difference and similarity of function. Therefore, Waltz simply closed this section on any changes. If considering the principle of differentiation and segregation, this principle will be the subject of change. The type of society structure in the feudal system with the society structure in the modern Westphalian system is a good example for this change. The change in property rights from its feudal form to private property rights led to a structural change in the feudal system and its transformation into a modern system. By expanding this discussion, it is possible to explain the change from the modern system to the post-modern system.

In the discussion of the ordering principle, Barry Buzan and his colleagues provide constructive comments. According to their belief, the ordering principle can be subject to change both in the structure of interacting units and in structure of the international system. Buzan and his colleagues propose a different degree of anarchy between

the negative and positive limits of the X-axis. Therefore, international systems can be different depending on the intensity or weakness of the level of anarchy. Considering this tolerance, interacting units can also differ in the degree of hierarchical governance. Therefore, the interacting unit can play the role of intermediary between the international system and the agents within interacting units. With this assumption, there is a double dilemma for the interacting unit. The security dilemma from within and the security dilemma caused by the structure of the system are the double security dilemma.

Ashley and Robert Cox focus on process and the historical context. Ashley states that Waltz ignores the social origin of power and does not pay attention to the social recognition of power. Like Buzan and others, he focuses on different layers of power and the effect of paying attention to these layers on structural change in the international system. On the other hand, Cox focuses on social forces and their impact on the structure of states and the international system. According to Cox, Waltz has neglected the two elements of ideas and institutions by focusing on material capabilities. He states that these three elements, i.e., idea, institution, and material capability, interact with each other and play a role in the structure of social forces, forms of states, and the international order problematic. This is how changes in these three elements cause changes in social forces. Changes in social forces also lead to changes in forms of states and ultimately changes in the international order problematic.

Robert keohane focuses on international institutions and information flow. He proposes change in two ways, peaceful and non-peaceful. Peaceful change occurs following the perfect flow of information and the intermediary role of institutions to provide this information to states. On the other hand, non-peaceful change is the result of imperfect information flow, diplomatic disputes, and changes in norms and rules in institutions. K.j Holsti and Jeffrey L. Herrera both focus on international institutions and the institutionalization of ideas. While emphasizing institutional change as the factor of change in the system, Holsti introduces two types of institutions. Fundamental institutions will leads to structural change, such as Westphalian's institution of sovereignty. The second type is the procedural institutions, which does not have a significant effect on structural change in the international system. The institution of war is a procedural institution, the elimination of which has no effect on the international system. Herrera also deals with the role of technology in the institution and its impact on the change of the international system by examining the two technologies of railroads and nuclear weapons. He discusses the role of these two technologies in redefining

the relationship between the states and the society. Herrera also states that technology has become a part of social life with its ever-increasing expansion and became an influential element in the theory of international relations. He explains the impact of technology on the capacity of interaction, which includes the three elements of speed, scale, and intensity of interactions between states. According to him, the international system based on internet communication is different and distinct from the international system based on horsepower communication.

Robert Gilpin defines the international system as consisting of three components, different entities, order, and form of control. According to him, the degree of control in the system depends on three factors: distribution of power, hierarchy of prestige, and a set of rights and laws that affect how governments interact. The structures of Gilpin's model include the imperial or hegemonic structure, bipolar structure and multipolar structure. He proposes three types of changes for the international system. The first type of modification is the change in the characteristics of the actors of the system. Another type of change that Gilpin wants is a change in the way of implementation or control in an international system. According to him, the third type of change is changes in interactions or regular processes of an international system. His first type of change is within the second element of Waltz's model of structure. The second type of Gilpin's definition refers to the ordering principle and the first element of Waltz's model, and the last type focuses on process, which have no place in Waltz's definition.

As mentioned above, Waltz rejects any possibility of change in the first two components of the structure. At the same time, he denies the historical background and social foundation of the change of power. He also reduces attributive power to the level of units. In order to overcome these limitations and achieve the ability to explain and predict structural change in the international system, we explain and present the conceptual model of this research with the previous concepts of the main theory, critics, and other experts studied.

The schematic model of Figure 11 shows the main concepts and the relationships between them in the international system of the modified model of this research of neorealism. In the modified model of the research, the international system consists of three components including political structures of the system, the political structure of the units and the political structure of the international process. The obvious change in this modified model is the adding up of the structure of the process. In this way, we discuss the historical background and process as a source of influence on structural change in the

international system. These structures have a two-way relationship and influence on each other. The schematic model below shows the elements that make up the structure of the process.

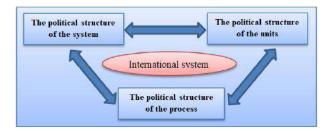


Fig.10: Schematic representation of the international system from the modified version of neorealism

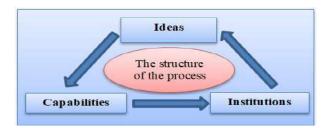


Fig.11: Schematic representation of the political structure of the process based on a modified version of neorealism

As the schematic model of Figure 12 shows, the structure of the process consists of three elements including ideas, capabilities, and institutions. These elements are also interconnected. Every new idea takes hold through institutionalization and creates new capabilities. Since this research emphasizes the main assumptions of neo-realism, including the priority of states as interacting units, this structure apply only in the field of state's interactions. From this point of view, we can pay attention to issues such as technology, terrorism, responsibility to protection, or humanitarian interventions in the form of ideas that have passed the way of institutionalization and have acquired productive or destructive capabilities. Of course, we will deal with these issues by focusing on the states and the macro-discussion of international relations theory. In the following, due to the similarity of the structure of the units and the structure of the international system, we draw the schematic model of Figure 13 both for the interacting units and for the structures.

In this model, like the Waltz model, the political structure consists of three elements: the ordering principle, functional specifications, and distribution of capabilities. The modified model of the research, despite its apparent similarity to Waltz's model, is qualitatively different from this model. The first difference is in the way of looking at the ordering principle of the international system or the

interacting unit. In the figure below, we offer the perspective of the research on the ordering principle.

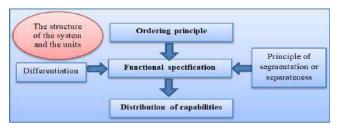


Fig.12: Schematic representation of the structure of the interacting units and system

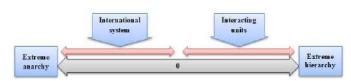


Fig.14: Schematic model of the ordering principle from the research modified perspective

Waltz observes this principle both in the international system and in interacting units in its absolute limit, i.e. extreme anarchy and extreme hierarchy. On the other hand, Waltz considers the inverse relationship between this principle in interacting units and the international system. Therefore, the possibility of changing this principle is unlikely and if any happen, is a revolutionary event. However, in this Research model as shown in the above schematic model, there is a range of fluctuation between these two limits. In fact, both in the interacting units and in the international system, on the xaxis of the vector, there is a possibility of change between extreme anarchy and extreme hierarchy. In domestic sphere, in the Westphalian system, this fluctuation is between zero and extreme hierarchy, and in the international system, between zero and extreme anarchy. Now, this assumption also opens the possibility of structural change from the origin of the ordering principle to the international system of the modified model of this research.

Taking into account the fluctuation in ordering principle, the security dilemma is no longer specific to the international system and this leads to security dilemma in interacting units too. Therefore, the basis of functional specifications as the second element of the structure of both the system and interacting units cannot be the issue of security. With this assumption, the issue of similarity and difference is not the matter in this section. Considering these cases, the next point of departure is the principle of differentiation as a configuration of interacting units in the system as a whole. As a result, it opens the principle of

functional specifications to change both in interacting units and in the international system. This opening allows the structural change based on the origin of this element. A clear example of this kind of change is the change in the type of configuration of societies in the feudal system based on overlapping ownership to societies based on private ownership, which led to the change of the system from feudalism to the modern international system.

#### V. CONCLUSION

The aim of this research is to access a framework for explaining and predicting structural change in the international system. For this purpose, we examine the theory of neorealism as a theoretical foundation. In order to identify and solve the existing limitations in Waltz's model of neorealism, this research observes the published literature relating to his critics. Regarding the issue of structural change in the international system, we also observe the points of view of some other experts and extract their main concepts. By summarizing all the reviewed opinions and the main concepts of Waltz's neorealism, we offer a model and present the synthesized conceptual framework of this research. In the following, we give a summary of these cases.

In the definition of international system based on research model, we add the structure of process to Waltz's definition. Therefore, the international system based on research model consists of three political structures including the structure of the units, the political structure of the system and the political structure of the process. In the research literature, the only case that tried to present an alternative model was Barry Buzan and his colleagues who made the changes in the Waltz model as follows. First, they transformed the political structure of Waltz's model into two structure including deep structures consist of the first two elements of Waltz model and a distributive structure consist of the third element of Waltz model, and then presented a new interactive structure resulting from the view of attributive and absolute power. Another change they wanted, which was the result of the division of power into its components, led to the emergence of a vertical level of analysis consisting of social, security, political and cultural layers, which is a way of crossing the border of different knowledge of social sciences. The difference between the synthesized model of this research and the model of Buzan and his colleagues is that in this research model, the overall structure of the Waltz model remains intact and the only addition to it is the structure of process. Another difference is that in the synthesized research model, the focus is on the political structure, and other structures raised in Buzan model, are not the subject

of this research. Of course, we made our modifications in the political structure in terms of quality and concept. The first adjustment is in ordering principle and consideration of fluctuation for it both in the units and in the international system. The second adjustment is in the functional specifications, which instead of focusing on similarities and differences, focuses on the principle of differentiation and separation, which is the basis of the configuration of both units and the international system.

In this research, it was not possible to review the entire literature related to the change in the system, and we analyze only those works that have a macro perspective in the theory of international relations and have a structural perspective. This research focuses on theory and is not a case study. Focusing on the historical background and process as a new structure provides a new horizon for explaining and predicting future structural changes in the international system.

Therefore, in this research, there was not an opportunity to conduct a case study and to examine this modified version of neorealism in its practical context. Our next effort is to conduct a case study and examine the research-modified version of theory in an independent research project.

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# Stylistic Analysis on Selected Literary works of Alicia Tan-Gonzales

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#### **Abstract**

This study looked into the stylistic analysis of the selected literary works of Alicia Tan-Gonzales. Specifically, this study analyzed three of her Hiligaynon literary works using frameworks for stylistic analysis. Using descriptive research design, this study examined phonetic structures and figures of replacement in the poem, Sentensya (Sentence); semantic structures and stylistic deviations in the short story, Mga Luha Para Kay Tatay Jose (Tears for Papa Jose); and turn-taking patterns and topic control that determined power and politeness strategies in the play, Pinustahan Nga Gugma (Betting Love). The stylistic analysis of the poem reveals that (1) for phonetic structures, the rhythmical description and effect of the syllables depended on the divisions of the word structure and grammatical structure; (2) for metrical structures in the poem, unstressed syllables were predominantly used rather than stressed syllables; and (3) for figures of replacement, the significant use of metonymy gave the poem an exaggerated impact. The stylistic analysis of the short story shows that (1) semantic structures based on emotive meaning disclosed the inner mind of the characters; (2) expressive meanings exposed the negative emotional state of the characters; (3) evaluative meanings depicted the characteristics and choices of a strong family woman in society; and (4) as to the reduction on sentence constructions, nominative sentences and ellipsis were evident in the short story, while simple repetition was present, indicating redundancy of sentence construction. The stylistic analysis of the play indicates that (1) the characterizations of different strong women made intuitive descriptions of power based on turn-taking patterns and topic control, although they may not be true in all circumstances in the conversations; and (2) politeness strategies were evident in the play, with positive politeness strategies as the most frequently used, followed by bald on-record, negative politeness, and off-record. Based on the overall results of the study, an instructional module in teaching Stylistics was designed to help students understand the literary style of Alicia Tan-Gonzales in fashioning her selected literary pieces, as well as styles of other literary writers.

Keywords— Figures of Replacement, Phonetic Structure, Politeness Strategies, Semantic Structure, Speech Act, Stylistic Deviations

# I. INTRODUCTION

New criticism closely highlights the reading of poetry, prose, and play to determine how pieces of literature work as self-sufficient and self-referential artistic pieces of art. Undoubtedly, style has been extensively used as a term in literary and language analysis for years. Scholars like Short (2010), Leech (2008), and Lawan (1997) conducted studies on styles in literary texts with concentration on the comprehensive and scientific study of language use and literary criticism.

Accordingly, stylistics is the scientific study of literary styles evident in the language structures and meanings employed by writers in crafting their literary works (Graff, 1987). Furthermore, Lawal (1997) believed that language style in literature is an interactive term that

signifies the structures of the author's language usage, which relate to some added etymological individual aspects. For that reason, Short (2010) stated that language can be understood as the only singularity through which people in authentic speech communities effectively intermingle and pass information transversely. Consequently, style is acknowledged by the prime features of the period (Babajide, 2000, as cited in Baro & Dwivedi, 2020).

In light of the foregoing premise, an in-depth stylistic analysis of the literary works of Alicia Tan-Gonzales was deemed noteworthy. Likewise, the researcher believed that the importance of cultural consciousness and traditional awareness could be best achieved through an understanding of one's language. Indubitably, the best way to fully understand a particular language is to appreciate its

literature as it infers a lot of beauty that deserves to be discovered for the purpose of language preservation and literary appreciation.

In reality, there are some studies on literary analysis and stylistic analysis that were conducted by researchers and scholars. Tribunal (2015), Alejandrino (2016), Belza et al. (2014), Cordero et al. (2019), and Acevedo (2020) explored Hiligaynon literature with their studies on literary criticism. Furthermore, stylistic analysis in the Philippine setting would be evident in the studies conducted by Ramos and Gatcho (2019), Caparas (2017), Hernandez (2017), Cruz and Pariña (2015), Tribunal (2011), and Tismo (2008). However, none of them dealt with the scientific and systematic explorations of the structures and meanings of Hiligaynon language through literature with the use of stylistic analysis. Particularly, none of them investigated into the styles of Alicia Tan-Gonzales in dealing with the metrical structures and rhythmical patterns, figures of quality, and figures of quantity in Hiligaynon poem Sentensya; the emotive, expressive and evaluative meanings and stylistic deviations on the aspects of reductions of sentence structure and redundancy of sentence structures in Hiligaynon short story Mga Luha Para Kay Tatay Jose; and the turn-taking pattern and topic control that determine power and politeness strategies in Hiligaynon play *Pinustahan Nga Gugma* in one study alone.

Therefore, it was but relevant to conduct a stylistic analysis of the selected works of Alicia Tan-Gonzales. Certainly, the scientific investigation into the structures and meanings of Hiligaynon language through the works of Alicia Tan-Gonzales may provide a new way of teaching Stylistics to college students as the materials for analysis would be regional literature, not the usual English pieces of literature. As this study dealt with the scientific scrutiny of language styles, it was appropriate to use Alicia Tan-Gonzales's selected literary works, which could be used as reading materials for the understanding, promotion, conservation, and preservation of the language and literature of Hiligaynon-speaking people. All things well thought out, this study may provide research-based claims on the language styles of Alicia Tan-Gonzales as evident in her literary works.

### Objectives of the Study

The primary concern of this study was to investigate the language styles of Alicia Tan-Gonzales in her selected Hiligaynon literary pieces.

Specifically, the following questions were answered:

1. What phonetic structures could be established in the poem *Sentensya* based on the following:

- 1.1. Rhythmical pattern;
- 1.2. Metrical structure?
- 2. What stylistic devices are prevalent in the poem *Sentensya* in terms of the following:
  - 2.1. Figures of quantity;
  - 2.2. Figures of quality?
- 3. What semantic structures are dominant in the short story *Mga Luha Para Kay Tatay Jose* in terms of the following:
  - 3.1. Emotive meaning;
  - 3.2. Expressive meaning;
  - 3.3. Evaluative meaning?
- 4. What stylistic deviations on syntactic constructions are predominant in the short story *Mga Luha Para Kay Tatay Jose* in terms of the following properties:
  - 4.1. The reduction of sentence structure;
  - 4.2. The redundancy of the sentence structure?
- 5. What conversational patterns indicate powers in the characters of the play *Pinustahan Nga Gugma* in terms of the following features:
  - 5.1. Turn-taking patterns;
  - 5.2. Topic control?
- 6. What politeness strategies are evident in the characters of the Act 1 of the play *Pinustahan Nga Gugma* based on the following aspects:
  - 6.1 Bald on Record;
  - 6.2. Positive Politeness;
  - 6.3. Negative Politeness;
  - 6.4. Off Record?

# II. MATERIALS AND METHODS

# Research Design

This study utilized the descriptive qualitative method since it involved the collection of data for the purpose of describing the existing condition. According to Vanderstoep and Johnson (2009), descriptive qualitative method focuses on cultural, social and personal identity. Hence, for this paper, qualitative method was chosen as the appropriate method as it represented the purpose of presenting the styles of Alicia Tan-Gonzales in crafting her literary works through stylistic analysis.

In addition, quantitative method was employed to support the interpretation of the data. Lambert and Lambert (2012) defined quantitative method as a research design that uses data to provide answers which can be expressed through numerical descriptions. Indeed, by engaging in

statistical work in the forms of frequency and percentage, the researcher could easily present the numerical description and explanation of the number of stressed and unstressed syllables, figures of replacement, semantic structures, syntactic deviations, turn-taking pattern and topic control, and politeness strategies in the analysis of the selected works of Alicia Tan-Gonzales. Certainly, the researcher used stylistic analysis as a method in the textual investigation of the selected works of Alicia Tan-Gonzales to arrive at a generalization of the author's styles.

#### Data

In this study, the selected Hiligaynon literary works of Alicia Tan-Gonzales were used throughout the study. *Sentensya* is a two-page poem with 242 words (1997). *Mga Luha Para Kay Tatay Jose* is a short story that garnered a Palanca Award and a Second Prize. It has eight pages with 4245 words (1997). *Pinustahan Nga Gugma* has 5 acts with 8928 words (2000).

The contexts of the data were the words, verses, and stanzas, of the poems that contained rhythmical patterns and metrical structures, and figurative expressions; words, phrases, clauses, and sentences in the short stories that contained semantic structures and syntactic deviations, and dialogues of the plays that contained topic control that determines power and politeness strategies.

#### **Data Gathering Procedure**

This research employed the following steps of data gathering in qualitative data analysis.

The first step required organizing and preparing the data to be used in the course of the study. Accordingly, all literature and studies related to stylistic analysis and the works of Alicia Tan-Gonzales that were available online and in printed books were gathered and organized after the identification of the research problem.

Second, the next step involved reading all the data. This step sheltered the chance to reveal the whole meanings of the reading materials downloaded from the internet and scanned from the books. Availability and accessibility are the inclusion criteria of the study.

The third phase was about coding the data. The researcher systematized the collected data by classifying and labeling the texts under the categories to which they belonged. In this study, the researcher identified the literary works of Alicia Tan-Gonzales that were available on the internet employing the technique of extraction of data from the websites.

The fourth step involved the utilization of the coding process to have the explanations of the analysis. This step was necessary because it aided in presenting

thorough explanations of the different procedures of research.

The last step instructed the researcher to advance the way in which the descriptions of the data would be characterized in the qualitative narrative. Since the discourse structure of the selected literary works of Alicia Tan-Gonzales had yet to be ascertained, nothing else but accessibility and availability were considered as the inclusion criteria.

### **Data Treatment and Analysis Procedure**

The succeeding steps of the data analysis are described as follows:

The first step was categorizing the data. The categorization was about the identification of the different genres of the literary works of Alicia Tan-Gonzales and about the labelling of the concepts in stylistic analysis to determine the phonetic structure, figures of replacement, semantic structures, stylistic deviations, conversational patterns and topic control, and politeness strategies.

The second step was classifying data. The selected lines, stanzas, words, phrases, clauses, and paragraphs that were believed to comprise stressed and unstressed syllables, stylistic devices, semantic structures, syntactic deviations, conversational patterns, and politeness strategies were put into tables.

The third step was analyzing the data. The collected data were readied for analysis. The data that were written in tabular forms were analyzed to describe the data.

Frequency and percentage were used for the following:

Problems one to six, which aimed to conclude the frequency count and percentage of stressed and unstressed syllables, figures of quality and figures of quantity, semantic structures, reduction and redundancy of sentence constructions, conversational patterns and politeness strategies. The secured frequencies and percentages were used to get the numerical description of the data that support the interpretation.

The fourth step was the discussion of the data. Certainly, the researcher confirmed the findings of the data with the theoretical and conceptual frameworks that were used in the data analysis. Consequently, the analysis of the poem *Sentensya* utilized Short's (2010) Phonetic Structure and Zhukovska's (2010) Figures of Replacement. The short story *Mga Luha Para Kay Tatay Jose* was scrutinized using Zhukovska's (2010) Semantic Structure and Zhukovska's (2010) Stylistic Deviation in Syntactic. The play *Pinustahan Nga Gugma* was examined to determine the conversational patterns that indicate power in the characters of the play using Short's (2010) Turn-taking Patterns and

Topic control and the politeness strategies using Brown and Levinson's (1987) Politeness Strategies.

The fifth step involved making an interpretation of the results. The researcher opted to use the narrative passages from the reading materials to discuss the outcomes of the analysis.

The last step was reporting of the results. In this phase, the researcher enhanced some ideas in the conclusion and recommendation sections of the study.

#### thical Considerations

This study guaranteed that 1) the researcher properly presented all extracted sources from the internet and from the books, 2) the reading materials of the writers/authors were recognized with the use of the American Psychological Association referencing style, 3) objectivity and impartiality in the examinations, analyses, interpretations, and discussions were observed throughout the study as stylistic analysis that deals with the scientific examination of literary pieces was utilized, and 4) the author, Alicia Tan-Gonzales, and the titles of her selected literary works were identified as the researcher used the accessibility criterion in choosing the data. In this study, the researcher based her analysis on the theories and concepts of stylistic analysis. Hence, conformity and credibility were achieved through the result of the agreement of the intercoders with the use of Holsti Index of Inter-Coder Reliability.

# III. RESULTS & DISCUSSIONS

Stylistic analysis on selected literary works of Alicia Tan-Gonzales provided a scientific description of the prevalent styles in the use of Hiligaynon language in crafting her selected literary pieces. In particular, this study focused on the scientific investigation of the phonetic structures and stylistic devices in the poem *Sentensya*, the semantic structures and syntactic deviations in the short story *Mga Luha Para Kay Tatay Jose*, and the turn-taking pattern and topic control that determine power and politeness strategies in the play *Pinustahan Nga Gugma*.

# Phonetic Structure of Sentensya (Sentence)

In the examination of the poem *Sentensya* on the basis of phonetic structures, there are 154 identified stressed syllables, which comprise 35% of the total number of syllables. Additionally, there are 281 recognized unstressed syllables, which constitute 65% of the total number of recognized unstressed syllables. Hence, it is evident that in the identification of rhythmical patterns, the use of more unstressed syllables than the stressed ones, is manifested. Moreover, the metrical structure of the poem revealed 435 syllables.

### Sample Examination and Analysis:

STANZA 1, VERSE 2: Metrical Structures and Rhythmical Patterns

X X X / X X / X / X

Nga gin/hu/man sang mga (ma/nga) di/nag-/on (That was mad 1 2 3 4 5 6 7 8 9 10

It can be noted that when saying the line, the rhythmical pattern can be uttered aloud as Nga gin/hu/man sang mga (ma/nga) di/nag-/on, the thumps of the verse coincide with -man, -nga and -nag-, which means an increase in the intonation is applied when uttering them. The rhythmical beat of Nga gin/hu/man is di di di dum in which there is the lengthening of pronunciation of the first three weak syllables nga, gin- and -hu-, before an increase in the intonation of the fourth strong syllable man-. The rhythmical beat of sang mga (ma/nga) di/nag-/on is di di dum di dum di. A weak syllable sang has prolonged pronunciation. The sixth syllable ma- is read fast followed by a strong syllable -nga with rising intonation. A falling intonation on the eighth weak syllable di- and a raise on the ninth syllable -nag- before it falls on the tenth syllable -on are evident. In this verse, Alicia Tan-Gonzales used more weak than strong syllables. Also, the determined strong and weak syllables identified the word and grammatical structures in the verse.

# Figures of Replacement of Sentensya (Sentence)

In the enquiry of the poem *Sentensya* on the basis of figures of replacement, there are 11 extracts in the poem that typify the figures of quantity in the aspect of hyperbole. it is 33% of the total number of stylistic devices taken from the poem which shows the presence of high degree of intensity in expressing the ideas in the poem. Moreover, there are 22 extracts that illustrate the figures of quality in the aspect of metonymy, and such comprise 67% of the total number of stylistic devices evident in the poems, which shows that transference of contiguity in the poem is substantial. Hence, it is vivid that the significant number of metonymies made the deep structure of the text hyperbolic.

# Sample Examination and Analysis:

EXTRACT 1: Figures of Quantity on the Aspect of Hyperbole (Stanza 1, verses 1 and 2)

Ako ang ginsumbong sa kasal-anan (I was accused of a sin)

*Nga ginhuman sang mga dinag-on* (That was made by the winners)

The extract above shows the figure of replacement under the category of figure of quantity on the aspect of hyperbole. It could be noted that stanza 1, verses 1 and 2 showes an exaggerated expression of sensitivity in the point of view of the persona in the poem. Consequently, the line

Ako ang ginsumbong sa kasal-anan Nga ginhuman sang mga dinag-on (I was accused of a crime that was made by the winners), Alicia Tan-Gonzales's style of expressing the thought of the old maid in the poem is through overstated countenance of words. In Filipino society, old maids are teased by their family and friends for being alone, but for the old maid in the poem to relate the joke as a crime is certainly an exaggeration of sensitivity to the teasing.

Additionally, Alicia Tan-Gonzales used the aspect of metonymy in the hyperbolic line which is evident in stanza 1, verses 1 and 2, the word, 'dinag-on' (winner) is a metonymic expression which refers to a concept of those who are married, especially the female population. Further, it could also be symbolic. If someone is married, she is a winner - a dinag-on. Certainly, the old maid in the poem claimed that the accused crime she committed was made by the winners (ginhuman sang mga dinag-on). Hence, ginhuman, which means 'made' consummated by the dinag-on or winners, showed another point of exaggeration as the line pointed out that she was being mocked by the ones who were married. Indeed, the verses produced a dramatic effect that made them hyperbolic.

# Semantic Structure of Mga Luha Para Kay Tatay Jose (Tears for Papa Jose)

In the examination of *Mga Luha Para Kay Tatay Jose*, there are 27 extracts that illustrate semantic structures. Consequently, 8 extracts exemplify emotive meanings, which comprise 30% of the total number of extracts taken from the short story. Additionally, there are 8 extracts that illustrate expressive meanings, which make up 30% of the total number of extracts obtained. Lastly, 11 extracts characterized evaluative meanings, which account for 44% of the total number of extracts taken from the short story. It can be gleaned that among all the connotative meanings, evaluative meanings got the greatest number of extracts, followed by expressive meanings and emotive meanings.

# **Sample Examination:**

EXTRACT 1: Semantic structure on the basis of expressive meaning

"Pero **libakon** naman ako sina nila. Masiling naman ina sila nga **dalukdalok** 

gid ang asawa ni Berting." ("But they will gossip about me again. They will

say again that the wife of Berting is not generous.")

The above extract demonstrates semantic structure on the basis of expressive meaning. Expressive meaning aims a direct expression of the speaker's defiance toward what the speaker talks about and gives interjections as the main example of this function. Also, it contains negative emotions that makes it different from emotive meaning (Zhukovska, 2010). The lines, "Pero libakon naman ako

sina nila. Masiling naman ina sila nga dalukdalok gid ang asawa ni Berting.", has the strong sense of emotive meaning. The extract above contains strong emotional colloquial words libakon (gossip) and dalukdalok (not generous). These are strong Hiligaynon words with negative meanings. Additionally, in the culture of Hiligaynon-speaking people the idea of libakon (gossiped by other people) would lead to anger by the ones being chattered.

Certainly, the wife believed that her in-laws would talk ill about her every time she refused to give any financial help as being dalukdalok (not generous enough). This is because in reality, there are some instances in Filipino culture that a daughter-in-law could be called dalukdalok if she disagreed to the requests of her husband's families. Most of the requests would be financial help in times of sickness or difficulties. In Filipino culture, financial problems should be assisted by the members of the family who are financially stable. This could put the wives in difficult situation, especially if the budget of their own family might be in trouble. Indeed, the above extract shows the speaker's attitude and emotion to the family of her husband. This qualifies the extract under expressive meaning. Indeed, Alicia Tan-Gonzales perfectly crafted in her style of writer the typical concerns of a Filipino wife.

# Syntactic Deviations on Mga Luha Para Kay Tatay Jose (Tears for Papa Jose)

The examination on sentence constructions in *Mga Luha Para Kay Tatay Jose* shows that on the aspect of reduction on sentence construction, 7 extracts are nominative sentences, covering 54% of all extracts. Also, 4 extracts are ellipsis, which comprise the 31% of all extracts. On the contrary, there are 2 evident repetitions which determined the redundancy on sentence constructions. These sentences make up the 15% of the total number of stylistic deviations in the syntactic constructions evident in the short story. Hence, Alicia Tan-Gonzales used more reduction than redundancy on sentence constructions as stylistic deviations in her short story.

# **Sample Examination:**

EXTRACT 1: Reduction of sentence structure on the aspect of ellipsis

Napilitan ang tigulang magtuad. "Naghambal ang doktor nga may bato ako sa kidne.

*Kinahanglan operahan*." (The old man had no choice but to say his intention. "The doctor said I have kidney stone. I need to undergo operation.")

The above extract illustrates stylistic deviation on the aspect of reduction on sentence construction. In order to complete the sentence, it should have been "Kinahanglan ako nga operahan." (I need to undergo operation). Comparing the extract with the complete sentence mentioned, the pronoun ako which means 'I' and the

particle *nga* that functions as a modifier connector (Motus, 1971) are missing. Thus, the absence of either the subject or the predicate or both in the utterance makes the sentence elliptical (Zhukovska, 2010). Hence, among the Hiligaynon-speaking-people, the line could be understood as it is strange to completely state the sentence in delivering the utterance in a conversation.

Most importantly, the manner of how the old man uneasily delivered his words in front of his daughter-in-law would show Alicia Tan Gonzales' style of crafting the clear role of the wife in the life of her husband and their family as a whole. Also, *tatay* (papa) Jose was implying that he needed money for the operation. Indeed, he omitted *Ako* (I) because he focused on the 'operation' as a matter-of-fact, rather than on himself. Among Filipino culture, if the immediate family members of the husband ask for financial help, it is important to seek the permission of the wife. Hence, the line showed the awkwardness of the father-in-law while he was telling the amount of money he needed.

# Turn-taking Patter and Topic Control on *Pinustahan* Nga Gugma (Betting Love)

Based of Short's (2010) intuitive idea of power, evident turn-taking pattern and topic control that determined power in the Act 1, Scenes 1 to 7 is manifested. Dory had the greatest number of turns, with a total of 29 turns, while Pearl had the least number of turns, with only 11 turns. This shows that Dory was the powerful speaker while Pearl was the powerless speaker. *Tyay Maring* had the longest turn with 106 words in her utterance, whereas Emma, Lisa, Frank and *Tyay Maring* had 1 word each in their utterances. Hence, *Tyay Maring*, the nanny of Dory, was considered as a powerful speaker at the same time powerless together with Emma, Lisa and Frank based on Short's (2010) notion of power on the aspect of the longest and shortest turns.

Dory initiated conversational exchanges 4 times. At the same time, she responded 25 times in the conversational exchanges. Indeed, Dory had the highest number of initiated responded conversational exchanges, which illustrates that she was both a powerful and powerless speaker. Lisa controlled the conversation topic 8 times while Dory interrupted the conversation 1 time, which made them powerful speakers. It can likewise be demonstrated that Dory used terms of address marked for respect 20 times while Tiyay Maring used terms of address not marked for respect. This made Dory a powerless speaker and Tiyay Maring a powerful speaker. It could be seen that no one allocated conversation turned to others in Act 1, Scenes 1 to 7. Most importantly, based of Short's (2010) intuitive idea of power on the basis of turn-taking power and topic control would not be true to all.

Certainly, Alicia Tan-Gonzales is known to craft picture-perfect-images of different empowered women. Indeed, *Pinustahan Nga Gugma*, signify her signature style, which is the characterization of woman power. Unquestionably, Alicia Tan-Gonzales' style of creating a static and foil minor but powerful characters in her play *Pinustahan nga Gugma* would be evident. It turned out that minor characters could also become powerful speakers based on Short's framework with regard to the number of turns and to the initiator of conversation topics. Hence, the characters did not change from the beginning until the end, and they helped enhance the main character's role.

Gonzales presented a dynamic main character to show that a determined career woman who got no interest to love could change into a submissive lover. Also, the writer's style of making the exchange of conversation between friends were done in a plane transition where the powerful minor characters initiated and controlled the topics while the other characters, including the main character, responded. Certainly, a better understanding of the five female characters gave a better understanding of how turntaking pattern and topic control could determine who was powerful or not among the friends.

# Politeness Strategies on *Pinustahan Nga Gugma* (Betting Love)

The characters' politeness strategies in act 1, scenes 1 to 7 are manifest. The characters uttered significant number evident bald on record politeness strategies: Dory 11; Lisa 1; Cushi 2; Peach 2; Emma 4; Frank 6; and Tyay Maring 3. All in all, 29 extracts illustrate bald on record or 23% of the characters' total utterances under the category. The characters articulated substantial politeness strategies under the aspect of positive politeness: Dory 13; Lisa 8; Chuchi 8; Pearl 5; Emma 10; Frank 2; while Tyay Maring expressed 2. Certainly, there were 48 utterances that exemplified positive politeness or 39% of the total uttered politeness strategies. The characters voiced considerable negative politeness strategy: Dory 9; Lisa 7; Pearl 1; Emma 1; Chuchi 5; Frank 2 and Tyay Maring 3. Surely, 28 utterances showed negative politeness strategies that represent the 22% of the entire politeness strategies. The characters in act 1 enunciated exhaustive number of offrecord politeness strategy: Dory 9; Lisa, Emma and Frank 1; Pearl and Chuchi 2; and Tyay Maring 4. 20 extracts or 16% of the full off-record politeness strategies in the play. Lastly, as to the greatest number of obvious politeness strategies uttered by the characters in act 1, scenes 1 to 7, positive politeness strategies got the most number, followed by bald on record and negative politeness strategies and offrecord strategies.

# Sample Examination and Analysis:

EXTRACT 1: Politeness Strategy on the Aspect of Off the Record (Act 1, Scene 1)

# Dory: Ti, ikaw, Tyay Maring, kay wala ka nagpili nakapamana ka?

(That's why Auntie Maring, because you did not choose, were you able to marry / did you get married?)

The above extract expresses politeness strategy on the aspect of off-record. Off-record politeness strategy exhibits indirect strategies to escape direct face threatening acts by being purposely confusing or unclear (Brown & Levinson, 1987). Henceforth, The line, "Ti, ikaw, Tyay Maring, kay wala ka nagpili nakapamana ka?" (So, Auntie Maring, because you did not choose, were you able to get married?), is an off-record strategy. Gonzales's style of wording showed in the line that the question was not actually to get any answer because Tiyay Maring was an old maid in her 60s. Definitely, Gonzales used rhetorical question to purposely tell Tiyay Maring a question not intended to be answered. The line is also ironic because it inferred the question, "Should women choose any man so they can get married?" Another way of how Gonzales shows irony in her style of showing off-record is the presence of the character of Tyay Maring. Obviously, it is a big irony for a sixty-year-old old maid to impose that Dory should get married because she was already an old maid. Apparently, Gonzales's rhetorical question and ironic statements are her style, which can be illustrated in the extract above that shows off-record politeness strategy.

# IV. CONCLUSIONS AND RECOMMENDATIONS

#### Conclusion

Based on the findings of the study, the following conclusions were drawn:

It is apparent in the results of the study that the rhythmic patterns of the poem *Sentensya* depend on whether a word is a lexical full or a single-syllable grammatical word. It is also evident that the divisions of the group of words in the poem into noun phrase and verb phrase regulate the separation of the sound effects. It is right to say that the phonetic structures of the poem *Sentensya* could be determined through word structures and grammatical structures. Henceforth, these aspects of Hiligaynon language explain why Alicia Tan-Gonzales' style of rhythmical patterns in the poem *Sentensya* contain more weak syllables than strong syllables.

Additionally, Alicia Tan-Gonzales' style of developing the sound scheme of the poem *Sentensya* is simple as the consonants and vowels which are formed into

words are pronounced and uttered by syllables. Also, a substantial style in the choice of words of Alicia Tan-Gonzales is the use of words that have more than one vowel, encompassing a two or more-syllable utterance and the use of apostrophe (') and hyphen (-), which are all syllabicated.

Certainly, the sound scheme in the poem is simple because the words in the poem have no consonant cluster and no silent letters. It is then evident that Alicia Tan-Gonzales's style of measuring the metrical structure in her free-verse poem *Sentensya* is by the means of Hiligaynon language syllabication.

It is perceived in the examination of the figures of replacement that the figurative languages in *Sentensya* could be a figure of quality and at the same time, a figure of quantity. Unquestionably, Alicia Tan-Gonzales's style of expressing dismay in the poem *Sentensya* is also exaggerated. Hence, the verses in the poem could either be hyperbole or metonymy.

Obviously, the style of Alicia Tan-Gonzales in presenting metonymy in the poem *Sentensya* creates thought-provoking dramatic language that utters truth about the mind of an empowered old maid, and that is expressed in an overstated manner, which makes the metonymical expressions hyperbolic.

Indisputably, the examination of *Mga Luha Para Kay Tatay Jose* provided a clear interpretation of Alicia Tan-Gonzales's distinct style of word formations with dissimilar structures of sentences to come up with a precise understanding of texts based on their connotative meanings. Semantic structures on the aspects of emotive, expressive and evaluative meanings impeccably exemplify the style of Alicia Tan-Gonzales in crafting the characteristic of a strong family woman in our society as evident in her short story *Mga Luha Para Kay Tatay Jose*. Indeed, Alicia Tan-Gonzales painted a typical daughter-in-law, wife, and mother who is strong enough to validate her feelings about the presented circumstances, her negative side as a woman and her approval or disapproval of other people's opinions about her, and the situations around her.

A significant style of sentence deviations in Alicia Tan-Gonzales's *Mga Luha Para Kay Tatay Jose* is the use of nominative and ellipsis sentences. Gonzales's use of the reduction of sentence construction added to the strength of a strong woman, the main character that Alicia Tan-Gonzales built in her story, while her way of using the redundancy of sentence construction exposed the negative side of the strong woman character that she made. Hence, Alicia Tan-Gonzales used the nominative and ellipsis sentences to express the main character's power over her husband, child, and father-in-law.

Distinctly, the examination of the dialogues of the characters in the play *Pinustahan Nga Gugma* provided a logical conclusion of Short's conventional intuitive descriptions of who the powerful or powerless speaker is based on the concepts of turn-taking pattern and topic control would be not true to all. Indeed, Alicia Tan-Gonzales's style of creating a static and foil but empowered and intelligent female characters in her play *Pinustahan Nga Gugma* made the exchange of conversation between friends' plane in transition wherein a particular character may be considered powerful or powerless in one conversation setting based on the concepts of turn-taking pattern and topic control.

Direct statements that show an obligation for great will power were Alicia Tan-Gonzales's style to show politeness strategy on the aspect of bald on record. Utterances delivered in an ironic manner to avoid conflict or misunderstanding were used by Alicia Tan-Gonzales to display positive politeness strategy. Indirect sentences that display respect even in awkward situations were used by Alicia Tan-Gonzales to exhibit negative politeness strategy.

Lastly, Alicia Tan-Gonzales used rhetorical questions and ironic statements to illustrate off the record politeness. Indeed, Alicia Tan-Gonzales's style of sending her message about the different points of view of women towards being an old maid is evident in conversations that deal with politeness strategies.

In totality, Alicia Tan-Gonzales's style of using Hiligaynon language in her selected pieces entitled *Sentensya*, *Mga Luha Para Kay Tatay Jose*, and *Pinustahan Nga Gugma* to illustrate the meanings and messages of her literary works revolved around her signature style of crafting strong-willed and empowered women in the Hiligaynon-speaking society.

#### Recommendation

In the light of the foregoing conclusions, the following recommendations are offered.

Bachelor of Arts in English Language students and teachers must be determined to obtain additional knowledge and information about the study and appreciation of regional literature, language, and linguistics. Curriculum planners and specialists in Western Visayas may see the relevance of Hiligaynon literature to teaching Stylistics to Bachelor of Arts in English Language students. Language and linguistics researchers may conduct more studies on stylistic analysis of regional literature to bring about discoveries that will lead to language development and literary appreciation. Lastly, the local writers and literature enthusiasts may have a place where they can gather and plan ways on how to preserve, conserve, and restore the culture

and tradition that could be mirrored in the Hiligaynon literature.

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# Hanlam: Marriage payment in the 21st Century: A Case Study from Wokha Town

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#### Abstract

Marriage is one of the oldest social institutions in human society. During this occasion, some marriage payments are made in the form of bride price, dower, and dowry. In the Lotha community, a marriage payment, "Hanlam" is practiced. Hanlam is different from any of the marriage payments mentioned above. Thus the study's main objective is to find out the relevance of the Hanlam practiced among the Lotha community and its impact on women's rights. The paper is descriptive, where the respondents were selected based on purposive sampling. Altogether 50 couples from Wokha town were interviewed. The study found that Hanlam still holds relevance among the Lotha couples as it indirectly benefits the newly married couple not only in terms of monetary help but through hanlam the couples are recognised and accepted by their kin, especially the groom is regarded as one of the kin members by the brides' paternal kins. Furthermore, it is the only traditional practice left in Lotha marriage ceremony. Finally, the continuation of the practice of Hanlam has not led to the curtailment of women's rights.

#### Keywords— Marriage payment, Lotha, Hanlam, Relevance, Women's Right

# INTRODUCTION

Marriage is considered one of the oldest social institutions in human society and is found in every known human society. It is an institution or complex of norms that sanction a man and a woman's relationship and bind them in a system of mutual obligations essential to the functioning of family life. It grants the status of a person socially acceptable and admitted to privileges maintained and upheld by the social code. Marriage is not only a union between two individuals, but it is a union between families, clans, villages, and communities. And this institution differs from community to community, religion to religion, and place to place. The marriage institution is recognized in all cultures and communities and has many rituals, customs, and traditional morals and values. Marriage marks the formation of the family, the primary unit of production, consumption, procreation, human interaction, and linkages within the larger society. Sociologists, anthropologists, and other social scientists have attempted to provide definitions of marriage sufficiently general to encompass its various manifestations.

Many scholars have defined marriage in different ways taking into account different aspects, ways, and generations. Therefore, there is no universal definition of marriage. However, an explanation given by Westernmark(1992) is most acceptable by all where he defines marriage as; marriage is more or less a durable connection between a male and female, lasting beyond the mere act of propagation till after the birth of offspring. He completes this definition "as a social institution, on the other hand it has a somewhat different meaning, a union regulated by custom and law. Society lays down the rules relating to the selection of partners, the mode of contracting marriage, its form, and its duration."

During marriage, some form of monetary transaction among the bride and groom's family before and at the time of marriage is not a new practice. Marriage payment can be categorized into brideprice (prevalent among the tribal), Dowry (commonplace among the Arab/Muslims), and Dowry in South Asia (Goody, 1974).

# THE PRACTICE OF BRIDE PRICE AND DOWRY

The custom of bride price as marriage payment dates back to the ancient civilizations of the Egyptians, Mesopotamians, Hebrews, Aztecs, and Incas. Under Islamic Law, a valid marriage contract requires a form of brideprice. Ancient China required the negotiation of a bride price for the validity of marriage, and these transfers continue to be a norm in many rural areas today. Finally, Bride price are

currently most prevalent in Africa, where more than 90% of sub-Saharan societies typically make such marriage payments (Goody, 1974). In terms of marriage payment in the form of dowry dates back to at least the Greeks and Romans. For instance, in medieval Western Europe and later, dowries were a common practice among most social and economic groups. Dowry as a marriage payment was also prevalent in Latin America until countries gained independence. In contemporary times, dowry is almost universal in India. In other parts of South Asia, such as Bangladesh, Pakistan, and Sri Lanka paying a dowry at the time of marriage is increasingly common (Anderson, 2007: 13).

# SOCIAL CHARACTERISTICS AND MARRIAGE PAYMENT

The social characteristics and nature of marriage payment practice go hand in hand in most societies. For instance, marriage payment of the brideprice is primarily practiced in the tribal community, where women play an active role in agriculture. Boserup (1970: pp 64-67) says the brideprice is found in societies where agriculture relies on light tools (such as the hoe) and, thus, where women are actively engaged. Hughes (1985: pp 13-58) also argues that the historical absence of bride price in Greece and Rome was an important demarcation of the complexity of Greco-Roman civilization. This contrast with contemporary Indo-European peoples (the Germanic tribes) and the ancient and more primitive people of the Mediterranean whose legal and religious literature from the code of Hammurabi to the Bible records the practice of brideprice. The dowry on the other hand as marriage payment exists in complex, advanced, non-kinship, and class-based societies.

#### **Background of the Lotha Tribe:**

Like the word Naga the derivation of the word Lotha is obscure. It has been interpreted in various ways. According to Zanao Mozhui, 'Lo' means sacrifice or offering, 'Tha' means fully or satisfactorily (Mozhui, 2004:04). Therefore Lotha means people who fully sacrificed to the satisfaction of the Gods. Another interpretation is that their original name was *kyong* which means human. J. P. Mills mentions that the Lothas called themselves as *kyon*, meaning simply Man (1922: 01).

The Lotha is one of the major tribe inNagaland. Wokha is the district of the Lothas which covers an area of 1,628 sq.km. According to 2011 census, Lotha population is 166,343 and the densityper.sq.km is 102. The literacy rate is 87.69% as of 2011(Nagaland census, 2011). TokhuEmong is the post harvest festival of the Lothas, which is celebrated with the harvest done, granaries full and people settle down to enjoy with feasting. It is celebrated in

1<sup>st</sup> week of November every year (LH, Tokhu Emong Motsu, 2016: 9)

### **Hanlam: Marriage Payment Among the Lothas**

The concept of Lotha marriage encompassed all the above conceptual understanding of the marriage institution. Marriage in Lotha society is a union of a man and woman, created by following the prescribed rules, rituals, and obligations the society set. Through marriage, a family is created, and not only that, but the marriage bond creates a linkage between two different groups, that of the husband's family and wife's family in the society. It further results in the formation of a kin group structure, whereby the families within the two kin are linked with affinal ties created by marriage between members in the group and society as a whole. Social norms- culturally defined rules for behaviour- help define marriage, which includes customs, laws, rituals or religious ceremonies, etc., that specify what is acceptable and unacceptable. It is not simply a relationship between two individuals but also creates a link between two social groups.

Among the Lothas, marriage is considered an essential obligation to be fulfilled by both man and woman for fecundity. One was disdain and looked down upon unless marriage had been fulfilled. Marriage, according to the traditional Lotha concept, is considered not only for sexual enjoyment and legalised procreation but also for the establishment of a good relationship. One of the social ties in the community was rooted in inter-clan marriage, which directly or indirectly promoted mutual understanding and kinship relations. The traditional marriage practices of Lothas, known as hanlam, act as a customary binding requirement without which marriage is not socially sanctioned and recognized. The etymological meaning of hanlam is hanlamvu, which literally means to carry back. Hanlam is practiced by giving pig's meat - a pig without blemish - given by the groom to the bride's family. Nrio(2009 p.82), after pikhuchak (feast of prosperity) a day is fix for giving hanlam (price of equilibrium ). The meat is then distributed to the bride's paternal jiwotsu (phratry) members and married sisters. In return, the distribution of meat yields gift (usually in cash) in favour of the bride. This practice not only strengthens the bond between the kins; it also recognizes the man/husband as an affinal member of the kin group. Generally, marriage must pass through customary stages in a particular society to be legal.

# Relevance of the Practice of *Hanlam* among the Lotha Community

Traditional practices of the people over various generations have evolved to adapt to the social needs of the people. However, in the process of evolution, there also exists the need to revive the culture that is fast losing its foothold in modernization. As Longkumer (2011: 190) mentions, modernisation associates it with abandoning traditional religious and cultural practices in favour of economic and scientific notions rooted in post-Enlightenment European thought. This change, described as 'modernising,' arises in context in which there are identifiable and crucial continuities between past and future and where religious, economic, educational, medical, and domestic beliefs and practices are deeply intertwined. With the advent of modernisation, there is a fragmentation of 'traditional society' into differentiated and dispersed practices. 'Old practices' are reassessed in a new light that transforms how they are understood, while 'new practices' under the aegis of 'reform' are formulated so as to maintain continuities with the past.

Owing to the adoption of Christian faith and belief and education, the Lotha society has witnessed a number of social changes, including the marriage system. It has changed the form of compromise between indigenous practices and Christian values. As Kikon (2016:86) mentions, at present, Lotha's practices a combination of Christian marriage and an indigenous marriage system with traces of traditional customs observable in a Christian church marriage. The church has shifted from traditional marriage to the western practices of white weddings. Like any other society swept by the wave of westernization, the Lotha tribe is thoroughly blended with western ideals and traditional institutions. The bride's wealth and gift-giving as it is practiced today are different from the normative tradition prescribed by the customary laws of the traditional Lotha society. The practice of *hanlamstill* exists among the Lotha society but in a more modified way.

Traditionally, the Lotha Naga marriage payments involved exchanges of objects in material and ceremonial value. The payment of marriage was commonly practiced in Lotha Naga society. Marriage price was a prestige value which indicated recognition of the girl's worth and some kind of social protection for her future married life. The marriage"payment" varied from village to village. Hanlamacts as a customary binding between the bride and the groom, without which marriage is not sanctioned even today and hanlam was a part of the 11 different marriage payments practiced in the past. In the past, the pig for giving hanlam was reared. Usually, the piglet would be designated for marriage and reared for anywhere between one to three years, as the case may be. As one of my informants mentioned, the pig for hanlam should be male and black in colour without any blemish or injuries and would be

¹ Oral Interview Alamo Tsaglao, Elumyo Village age 86 years

designated for marriage purposes. One ritual which is practiced even today with regard to *hanlam*is once the pig is brought to the bride's house, an elderly person prays over it, and it is speared to death. Marriage in the past was complete on the day *hanlam*exchange was done. However, with the influence of Christianity, the *hanlam*ceremony is done three days before the church wedding ceremony.

According to the couples that I interviewed about the practices of hanlam in Wokha Town, almost the couples state that hanlam still has its significance in marriage. It carries with it many indirect benefits to the newly married couple not only in terms of monetary help but through hanlamthe couples are recognised and accepted by their kins, especially the groom is regarded as one of the kin members by the brides paternal kins. Thus, Hanlamhas a numerous role and purposes within Lotha society in which materials (in terms of distribution of both productive and consumable resources), symbolic (relating to construction of social identity, particularly sexual and gender identities, and also the transition to adulthood), and establishing the nature of relationships between people. These functions are intricately interconnected. As one of my informants explain,

Hanlam is more than giving live pig to the bride's family. It denotes or marks the man and woman who have become one and are committed to each other. Not only that, hanlam helps recognise and extends family kinship. It marks the sign that they are a married couple. Hanlam invokes the unseen blessing for the newly couple for the procreation of children, long life, during the olden days. It invokes blessings of bountiful harvests, blessing during hunting, and everyday life.<sup>2</sup>

Similarly, young couples I interviewed are of the opinion that hanlamalone does not cause any economic burden to the couple, but the practices of sotak(distributing junk of meat to relatives, friends, colony etc.), which can even range up to slaughtering of 14 to 15 pigs or more and other unplanned expenses do.3 Maybe at present, hanlamdoes not play the same role like it did in the past because back then, there was no money economy, so understandably, there was no personal savings. Only after marriage, a couple was regarded as a responsible member of the community. However, with the changing of time, it still holds customary binding significance, and most of the couples in the present generation wish to continue this practice. Reason being it is the only traditional practice left in Lotha's marriage system, and all other ceremonies and practices are influenced by western culture.

<sup>&</sup>lt;sup>2</sup> Oral Interview on 4/07/2022 Mr. PhalanthungEzung from Longsachung Village, age 89 years

<sup>&</sup>lt;sup>3</sup> At present, Wokha town Baptist church regulates the hanlam weight to 150 kg and encourages the public not to practice *sotak* however; it is less or no cooperation.

#### CONCLUSION

Despite the practice of giving and receiving hanlam, an ageold tradition, such marriage payment customs has been questioned on several grounds. First, whether such practices are detrimental to women's rights in marriage, especially economic rights, secondly, does it cause newly wedded couples to experience severe financial issues that rob them of the joys of being freshly married, does continuation of such practices do more harm than good? Based on the data collected, Lothas considered Hanlam essential traditional marriage practice, which most advocate being upheld, and does not see the practice as detrimental to women's rights. Therefore the way forward for the community would be to ensure that such indigenous marriage practices like hanlam should not be misused as a source of income for the bride's family and relatives and prevent such practice from becoming a burden for the groom's family in the pretext of upholding age-old marriage practices. Finally, the community must ensure that such practice should be educated to the present generation about its significance and not allowed to become a license for the groom's family to deprive the bride of her rights in the marriage relationship under the pretext of tradition and culture.

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# Area Calculation using Measure (iPad and iPhone App)

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Received: 14 Jan Dec 2023; Received in revised form: 15 Feb 2023; Accepted: 24 Feb 2023 ©2023 The Author(s). Published by TheShillonga. This is an open access article under the CC BY license (https://creativecommons.org/licenses/by/4.0/)

#### Abstract

Mobile applications are rapidly growing in importance and can be used for various purposes. They are now widely used in education. One of the educational purposes for which mobile applications can be used is to calculate the exact result of surface area. This research aims to study the relationships between behavioral factors and the perceived usefulness of using the Measure mobile application in calculating polygonal surfaces. Also, the purpose of the research is to investigate the performance, satisfaction, and perceived behavior of the students while using this application. The methodology of the study is the observation method. The sample of the study includes 50 students from the primary and lower secondary school "Heronjtë e Lumës" Vërmica /Prizren, and from the primary and lower secondary school "Zef Lush Marku" Velezha/Prizren from the Republic of Kosovo. For data collection, the observation list with three sections of 10 indicators is the main instrument. The results of this study show that the use of the Measure mobile application in learning mathematics for students using the application helped to increase student achievement and success. Also, the application was considered satisfactory and promoted a significant increase in students' knowledge, being appropriate for its intended use.

### Keywords—Area, Learning, Math, Measure, Mobile Apps, and Students

### I. INTRODUCTION

Traditionally, education is provided in classrooms where students can interact directly with their teachers, making the physical presence of students very important. However, the widespread distribution of computers and communication technologies has made the learning process easier. Since the advent of mobile phones in the 1980s, they have been widely used by people of all ages around the world. It can be said that the whole world is becoming mobile, where mobile phones are not only communication devices but also mobile and private devices of technological equipment [1].

Nowadays, mobile technologies are becoming more and more widespread and networked. Such technologies can be creatively used in various fields. The use of mobile technologies in education is a clear example of such innovation. Mobile devices equipped with Internet connections have created the need for a new form of elearning, called mobile learning. Internet-enabled mobile devices can help learners access learning resources and online courses anywhere, anytime. The mobile application industry is growing rapidly [2].

Students will learn how to calculate the area of various shapes during their time in elementary and junior high school. They will start by calculating the area of squares and rectangles. The area is the term used to define the amount of surface area occupied by a 2D shape or surface. We measure the area in square units: cm² or m². The area of a rectangle is calculated by multiplying the length of a shape by its width. Whereas, to calculate the area of the square, we simply multiply two of the sides together. Learning about the surface area of different surfaces helps students estimate and quantify the size and space they take up. These learning units also pave the way for more complex concepts later in their learning journey. In their everyday lives, students will also need to recognize and apply their understanding of calculating surface area.

Technology in the classroom is about more than just pleasing students who want to see you realize value from their investment. New digital tools can help you engage students at all levels, activate multiple learning styles, and provide exciting and memorable activities for them. So, technology, and especially various mobile applications are promoting the love of mathematics which is one of the biggest obstacles to getting students interested in science, technology, engineering, and mathematics careers [3].

Measuring apps, on the other hand, are apps designed to help you quickly measure real-world objects without relying on a conventional tape measure. Powered by AR (augmented reality) and on-device sensors, these apps are pretty reliable as long as you're not going to use them for professional use cases. If you are someone who wants to measure length, width, or area, you can use one of the apps available on the iPad and iPhone [4].

# 1.1. Purpose of Study

This research aims to study the relationships between behavioral factors and the perceived usefulness of using the Measure mobile application in calculating polygonal surfaces. Also, the purpose of the research is to investigate the performance, satisfaction, and perceived behavior of the students while using this application. Also, to compare the area of the polygonal surfaces calculated with the relevant formulas with the one calculated by the application.

#### II. MATERIALS AND METHODS

Technology is a tool and how teachers use that tool greatly affects how well students learn math. Good use of technology, like making other instructional decisions about mathematics, requires teachers to have a solid knowledge of mathematics and a working knowledge of available technologies. There is nothing wrong with students knowing more than their teachers about how to use certain features of a calculator or an application [5].

Being able to accurately estimate area is important for certain areas of mathematics, and calculating the area of a shape is not always an easy task. Technology is providing dynamic opportunities for learning in math and STEM classrooms. We can enhance the learning process and make concepts come alive through engaging and interactive media. We can also provide additional support to address the needs of all learners and create personalized learning experiences [6]. Here are some important ways students can benefit when we incorporate apps into our geometry lessons.

Therefore, we will elaborate on one of the benefits that mobile applications offer to serve the subject of mathematics. The app in question is the Measure app installed on iPhone and iPad mobile devices.

Measure app uses augmented reality (AR) technology to turn your device into a measuring instrument. You can measure the size of objects, automatically detect the dimensions of rectangular objects and save a picture of the measurement. And with the iPad Pro 12.9-inch (4th generation), iPad Pro 11-inch (2nd generation), iPhone 12 Pro, and iPhone 12 Pro Max, you can measure objects more easily with visible guides, measure the length of a person and see a history of your measurements. However, the measurements are approximate [7].



Fig.1. Measure (iPhone App) [7]

### 2.1. How to make a single measurement

Open the Measure app, then follow any onscreen instructions that ask you to move the device. This gives your device a frame of reference for the object you're measuring and the surface it's on. Keep moving your device until a circle with a dot in the center appears. Move your device so that the point is over the starting point of your measurement, then tap the Add button. Slowly move your device until the point is over the end point of your measurement, then click the Add button again. After taking a measurement, you can adjust its start and end points. Touch and hold one of the points, then drag it where you want it to go. The measurement changes as you move the point [7].

# 2.2. Measuring an area

If your device detects that the object you are measuring is square or rectangular, it automatically places a measurement box around the object. Tap the Add button and measurements are displayed for the width and length of the object. Move your device slightly and the calculated image area is displayed. While the measurement is displayed, you can tap the calculated area number to see the length of the diagonal, as well as the area in square inches or square meters [7].

#### III. METHODOLOGY

# 3.1. Design of Study

Based on the literature review and previous studies that have focused on factors affecting mobile learning applications and their impact on users, the research model for this study consists of three dependent variables: learner performance, learner satisfaction, and student behavior. In addition to these dependent variables, there are four independent variables: learning outcomes, perceived usefulness, ease of use of the application, and content quality. However, for this research, the method of observational research was chosen. Observational research is a research technique where you observe participants and phenomena in their most natural settings. This allows researchers to see their subjects make choices and react to situations in their natural environment, as opposed to

structured settings such as research labs or focus groups. The choice of this method was specifically for the live situation in the environment where the students are performing surface measurements using the application. During the observation of the students, the teachers also took an active part in the study itself. In addition to observing the students' behaviors, the teachers took notes while the students performed the tasks.

#### 3.2. Participation

The study group of this research consisted of 50 students from the primary and lower secondary school "Heronjtë e Lumës" - Vërmica /Prizren, and from the primary and lower secondary school "Zef Lush Marku" Velezha/Prizren from the Republic of Kosovo. The students were from classes VI-IX and voluntarily participated in this research.

# 3.3. Research Objectives

The objectives of the research are identified as follows:

- 1. Are there any significant gains in student learning outcomes while using the Measure mobile app?
- 2. Is there any significant difference between calculating surface area with a pencil versus calculating with the Measure mobile app?
- 3. Are there any significant differences between students' attitudes and views when using the Measure mobile application?
- 4. Are there any significant benefits and usefulness of using the Measure mobile app when calculating the area of polygonal surfaces?
- 5. Is there any significant relationship between the use of the Measure mobile application and students' motivation and satisfaction when calculating surface area?

# 3.4. Data Collection and Analysis

To test our model and understand the factors that influence the performance, satisfaction, and behavior of students in using the Measure application, an observation of students using this application was conducted. To achieve our research objectives for data collection, we used a control list, which contained three sections of 10 indicators each, describing indicators such as student performance, student satisfaction, student motivation, student behavior learners, perceived usefulness, quality of content, and ease of use of the application. The indicators were divided on a three-point scale, that of meeting the objectives a high, moderate, and low. These data were then coded and systematically organized to find themes and patterns around the study.

#### IV. RESULTS

In our observational study, we examined how research students behave when using the Measure mobile application in calculating polygonal surfaces and comparing them when solving problems manually. The following figure shows the use of the Measure mobile application by students:





Fig.2. Calculation of distance and surface area using the Measure application

Therefore, during the observation, we used a control list and our results from this study show that our study objectives were met.

The results from the first section of the control list for students' performance when calculating surface area and their comparison with the Measure application are presented as follows:

Table 1. Results from student performance

I. Student performance							
No.	No. Indicators		Percenta ge	Moderate	Percenta ge	Low	Percenta ge
1.1	Success in learning outcomes	38	76.0	10	20.0	2	4.0
1.2	Precision in measuring the lengths and dimensions of polygons	45	90.0	5	10.0	0	0.0
1.3	Impact on error correction when calculating	34	68.0	15	30.0	1	2.0

	the surface area of polygonal surfaces						
1.4	Applying the concept of polygonal surfaces to real-life problem solving	35	70.0	13	26.0	2	4.0
1.5	Self-evaluation of results	39	78.0	10	20.0	1	2.0
1.6	Conceptual learning	34	68.0	15	30.0	1	2.0
1.7	Supports math domain results	35	70.0	13	26.0	2	4.0
1.8	It achieves the learning objectives	35	70.0	11	22.0	4	8.0
1.9	Learning strategies about the learning topic	36	72.0	13	26.0	1	2.0
1.10	Understanding mathematical concepts	32	64.0	16	32.0	2	4.0

From table 1 and the analysis of the control list from the first section, the results of the study show that students were successful in learning outcomes with a mean of 2.72 and a standard deviation of .536. They were accurate in measuring the lengths and dimensions of polygons with a mean of 2.90 and a standard deviation of .303. However, the impact on the correction of errors during the calculation of the surface area of polygonal surfaces was an average of 2.66 and a standard deviation of .519. The application of the surface of polygonal surfaces to real-life problem solving had a mean of 2.66 and a standard deviation of .557. On the other hand, the results from the students' performance show that the self-assessment of the results was with an average of 2.76 and a standard deviation of .476. Conceptual learning had a mean of 2.66

and a standard deviation of .519. The observation with the control list for the support indicator of the results of the field of mathematics had a mean of 2.66 and a standard deviation of .557. Students achieved learning objectives with a mean of 2.62 and a standard deviation of .635, and they had a learning strategy around the learning topic with a mean of 2.70 and a standard deviation of .505. And finally, the results from the first section show a mean of 2.60 and a standard deviation of .571 for the understanding of mathematical concepts.

The results from the second section of the control list for students' motivation and satisfaction during the calculation of surface area and their comparison with the Measure application are presented as follows:

Table 2. Results from motivation and satisfaction of students

	I. Motivation and satisfaction of students								
No.	Indicators	High	Percenta ge	Moderate	Percenta ge	Low	Percenta ge		
2.1	Motivated to learn	44	88.0	6	12.0	0	0.0		
2.2	They enjoy doing the tasks	43	86.0	7	14.0	0	0.0		
2.3	Active during class discussions	33	66.0	15	30.0	2	4.0		
2.4	Concentration during task solutions	21	42.0	22	44.0	7	14.0		
2.5	Effective classroom debates (critical thinking)	28	56.0	22	44.0	0	0.0		
2.6	Encourage cooperation	34	68.0	15	30.0	1	2.0		
2.7	Stimulation of creativity	27	54.0	18	36.0	5	10.0		
2.8	Active participation in forms of learning	34	68.0	14	28.0	2	4.0		
2.9	Providing immediate feedback	25	50.0	20	40.0	5	10.0		
2.10	Positive attitude toward mathematics	30	60.0	18	36.0	2	4.0		

From table 2 and the analysis of the control list from the second section for indicators of student motivation and

satisfaction, these results emerge. The results show that they were highly motivated to learn with a percentage of 88%. Likewise, 86% are very satisfied while performing tasks, while only 12% on average are satisfied with performing tasks with the Mesasure application. About 66% of students were more active during class discussions, about 14% on average and only 4% of them were not active during class discussions. They had a higher concentration of 42% during task solutions, while the rest was on average concentrated as in other lessons. Classroom debates were more productive with 56% effective (critical thinking) and 44% average. The results of the control list show that about 68% more encourage application collaboration, 30% on average, and only 2% do not encourage collaboration. The application stimulates creativity more by 54%, on average by 36%, and in 10% of

students, it did not affect the development of creativity. Students had active participation in most forms of learning at 68%, on average at 28%, and no active participation at 4%. The results from the indicators in the second section show that the Measure app provides half of the students with immediate feedback. And about 60% of students changed their attitudes to positive ones about mathematics after applying the application while measuring surface area.

The results from the third section of the control list for the benefits and usefulness of students when calculating surface areas and their comparison with the Measure application are presented as follows:

Table 3. Results from benefits and usefulness of students

	I. Benefits and usefulness of students							
No.	Indicators	High	Percentage	Moderate	Percentage	Low	Percenta ge	
3.1	Supporting the learning process	35	70.0	13	26.0	2	4.0	
3.2	Optimizing available time	37	74.0	10	20.0	3	6.0	
3.3	Didactic tool	25	50.0	24	48.0	1	2.0	
3.4	Visualization of geometric figures	35	70.0	12	24.0	3	6.0	
3.5	Interest in geometric figures	36	72.0	13	26.0	1	2.0	
3.6	Acquiring the necessary digital skills	38	76.0	11	22.0	1	2.0	
3.7	The more engaging learning environment	33	66.0	16	32.0	1	2.0	
3.8	Applies measurement processes by selecting appropriate techniques	31	62.0	15	30.0	4	8.0	
3.9	Development of computational skills	46	92.0	3	6.0	1	2.0	
3.10	Classifies and promotes relationships between geometric figures	12	24.0	27	54.0	11	22.0	

From table 3 and the analysis of the control list from the third section for indicators about students' benefits and usefulness from using the Measure application, these results emerge. The results show that the Measure app influenced 70% to support the learning process as much as possible, 26% on average and only 4% had no support. The application with a mean of 2.86 and a standard deviation of .587 optimized the available time and with a mean of 2.48 and standard deviation of .544 was used as a didactic tool during the calculation and comparison of surface area. The results show that about 70% of students helped them visualize geometric figures, 24% on average, while only 6% of students did not help them visualize plane geometric figures. The application with a mean of 2.70 and standard deviation of .505 created students' interest more in geometric figures, and it helped by about 76% in acquiring the necessary digital skills students. The results of the control list show that 66% of the application created a more engaged learning environment, 32% average and only 2% did not create a more engaged learning environment. The results show that with a mean of 2.54 and a standard deviation of .646, the application implements measurement processes by selecting appropriate techniques and formulas to perform measurements of the dimensions of polygons. Also, with a high percentage of 92%, the application had benefits in the development of calculation skills in students. However, the Measure application was not useful in classifying and promoting relationships between geometric figures, with the results showing that only 24% indicated usefulness, 54% indicated it had a moderate impact, and the rest indicated the opposite.

T-tests were performed to test the objective of whether there is a significant difference between the pencil surface area calculation versus that calculated with the Measure mobile app. The following table is a summary of the t-test analysis for the research objectives:

Table 4. One-Sample Test results from the control list

	Test Value = 0						
	t	t df Sig. (2- Mean Di tailed)		Mean Difference	95% Confidence Interval the Difference		
					Lower	Upper	
Student performance	46,977	49	,000	2,780	2.66	2.90	
Motivations of students	41,243	49	,000	2,700	2.57	2.83	
Benefits of student	36,962	49	,000	2,680	2.53	2.83	

From table 4 we notice that the p-value is equal to .000. In other words, this means that the probability that the sample has a mean difference of 2.78, 2.70, and 2.53, respectively, will indicate that there is a statistically significant difference. Also, the lower and upper bounds do not tend to zero, and that indicates that there are significant differences. Our results from Table 4 show that the lowest values are 2.66, 2.57, and 2.53, respectively. And the upper values are 2.90, 2.83, and 2.83, respectively. Since

the bottom and top values do not touch zero, there is a significant difference between calculating surface area with a pencil versus calculating with the Measure mobile app.

Correlation tests were conducted to test the objectives, to understand the relationship between the variables, and to determine the strength of the relationships. The following table is a summary of the Pearson correlation analysis of the research objectives:

Table 5. Correlations results from the control list

		Student performance	Motivation of students	Benefits of student
Student performance	Pearson Correlation	1	,601 **	,331 *
	Sig. (2-tailed)		,000	,019
	N	50	50	50
Motivation of students	Pearson Correlation	,601 **	1	,533 **
	Sig. (2-tailed)	,000		,000
	N	50	50	50
Benefits of student	Pearson Correlation	,331 *	,533 **	1
	Sig. (2-tailed)	,019	,000	
	N	50	50	50
**. Correlation is signific	cant at the 0.01 level (2-tail	ed).	l	
*. Correlation is significa	ant at the 0.05 level (2-tailed	d).		

Pearson correlation coefficient is .601 which describes the mathematical relationship between each variable of student performance, motivation, and benefits the Measure application has high coefficient values indicating that these relationships are statistically significant.

### V. DISCUSSIONS

Technology in the educational process is not new and mobile learning applications have now become more widespread. Therefore, it is necessary to understand the impact of mobile applications used in teaching and learning options. This research aimed to investigate the Measure application on the iPhone and conduct observations to verify its impact on students when

calculating surface areas. Control list results during observation overall, the Measure app was found to be more effective for learning than repeated exposure to the learning material in all learning conditions.

Math apps and mobile technologies in general offer improved communication, collaboration, creativity, and in classrooms [8]. In addition, problem-solving pedagogical features in math apps support theoretical components meaningful learning, personalized feedback, self-regulation, and customization [9]. Mathematics applications are used effectively in problem-based settings [8]. So, our results confirm similar findings as the performance of students as shown in table 1 presents an average of 2.78, which indicates that the objective of the study was achieved and shows that there is significant success among the learning outcomes of students while using the Measure mobile application.

Importantly, there is growing evidence that educational applications should include high-quality activities that rely on research-based principles to improve learning in general. In particular, educational apps promote (a) active, engaged, and meaningful learning, supporting high-quality social interactions and clear learning goals, and (b) intentional practice that is focused, active, and includes feedback. regular and combines different activities in different contexts [10]. Our results parallel the findings of the above study, as the Measure mobile app stimulated not only the desire to learn but also systematic learning.

It is an accepted fact that students nowadays are very comfortable with mobile applications and the need to use these applications in learning is very evident. The results of the study show that students learn quickly through the Measure mobile app for iPhone and iPad which is the best way these days. Therefore, even to support our study objective, we can say that the Measure mobile application during the calculation of the area of polygonal surfaces had significant benefits and utility. From the results of table 3 from the observation through the control list, we can mention the benefits and uses of the application, where it supported the learning process, optimized the available time, was used as a didactic tool, visualized geometric figures, added interest to students for geometric figures, acquire the necessary digital skills, create a more engaged learning environment, students apply measurement processes by selecting appropriate techniques and formulas to measure the dimensions of polygons, and develop students' calculation skills.

The results of our study show that the t-test value is .000, which is less than the .05 level of significance. Since the bottom and top values do not touch zero, there is a significant difference between calculating surface area

with a pencil versus calculating with the Measure mobile app. From this, the other objective of the study was also achieved. So, it is an accepted fact that students nowadays are very comfortable with mobile applications, and the need to use these applications in learning is very evident. The results of the study show that students learn quickly through the Measure mobile app for iPhone and iPad which is the best way these days.

The more motivated students are to learn something new, the more likely the student will learn the material. Research shows that in the ever-increasing world of technology, incorporating technology helps motivate students to learn [11]. The use of applications in the educational field increases the motivation of students during school activities [12]. Also, the results from the study show that the Measure mobile application motivated participating students for mathematics lessons. Our results are presented with an average of 2.70 in favor of students' motivation and satisfaction to use the Measure mobile application. Applications positively affect student participation during the educational process and encourage new ways to achieve learning [13]. The results of our study from the control list show that the other objective of the study was achieved, as a significant difference between the attitudes and views of the students when using the Measure mobile application is proven. The Measure mobile app helps students who are looking for new things in the learning universe. Apart from the sense of novelty, the app adds an element of fun and involvement to the learning process.

A positive Pearson correlation coefficient of .601 shows that with the increase in the value of the student motivation variables and the benefits that the Measure application has the average of the student performance variable tends to increase. From this, we can fulfill the objective of our study that there is a significant relationship between the use of the Measure mobile application and the motivation and satisfaction of students during the calculation of surface area. Also, the impact of mobile applications on student performance is currently related to the use of digital media, computers, and the Internet to facilitate learning. This means that the direct relationship between the Measure mobile app and student performance depends on student motivation and the benefits has this app.

### VI. CONCLUSION

Mobile applications open a new way for teaching and learning mathematics in 21st-century classrooms. This study determined the effects of using a Measure mobile application in teaching mathematics when calculating the area of polygonal surfaces.

The study concluded that the use of the Measure mobile app in learning mathematics for students using the app helped to increase student achievement and learning. Also, it was found that the Measure mobile app not only improves learning outcomes but also increases student engagement when calculating surface area. Students had a relatively high level of motivation to perform and learn more, and relatively high perceived satisfaction with the app. Likewise, the use of the Measure mobile application had a significant relationship with student's motivation and satisfaction when calculating surface area. The results also show that students' attitudes and views when using the Measure mobile application are not seen as positive. Additionally, we found that students perceived the Measure app as engaging, interesting, and fun and that they spent some time calculating polygon surface areas in the classroom environment. Overall, our results underline that the application was a useful and effective tool that can support the acquisition and retention of semantic knowledge in different learning environments. Against this background, our results emphasize that the application supports effective learning through integration in different environments and that even its core features can provide students with an enjoyable and motivating experience. In conclusion, the application was considered satisfactory and promoted a significant increase in student knowledge, being suitable for its intended use.

### VII. LIMITATIONS OF STUDY

However, our research had some limitations, one of the limitations of the research was that not all students had iPhone or iPad mobile devices available to calculate surface area. However, we have tried to overcome this limitation by distributing the mobile device to other students after completing the task with a classmate.

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#### **AUTHOR CONTRIBUTIONS**

All authors have sufficiently contributed to the study and agreed with the results and conclusions.

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### **DECLARATION OF INTEREST**

No conflict of interest is declared by the authors.

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