Strategies and Attitude in English Vocabulary Learning of Grade 11 Filipino Students: A Literature Review

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Introduction

The ever-increasing amount of new vocabulary terms can be difficult to learn at the appropriate rate, making vocabulary a key source of dissatisfaction in language learning. Additionally, vocabulary development is required for efficient communication and higher levels of competency. "Little can be conveyed without grammar; nothing can be conveyed without vocabulary," Wilkins (2012) stated. After a long period of neglect and a focus on grammar in English language classrooms, vocabulary teaching and learning has finally received the attention it deserves for effective learner vocabulary development (ELT). Learning vocabulary, on the other hand, is challenging since each competency level requires a significant number of high frequency vocabulary items, and their usage is often complicated, with several meanings and collocational applications. According to Nation (2013), basic word knowledge consists of knowing the form and meaning, and it then expands to encompass linguistic and semantic properties that span the categories of meaning, form, and use.

Gardner (2013) also mentioned that a large vocabulary is required for successful second/foreign language acquisition. Learners who have a good vocabulary may communicate effectively and perform well in the skills of listening, speaking, reading, and writing. It is a necessary basis for later language acquisition as well as real-world communication. As a result, the more language a learner grasps, the more skilled expressions he or she can produce. Furthermore, language experts understand that vocabulary knowledge and reading ability are inextricably linked.

Furthermore, second and foreign language learners grasp the importance of vocabulary right away. When it comes to vocabulary learning, however, each situation is unique. Because the alternatives for target-language input, output, and interaction are limited in the setting of foreign language acquisition, Tseng & Schmitt (2018) believe that using motivated and successful learning techniques is critical for vocabulary learning. A lack of vocabulary knowledge was revealed to be a major factor in learners' resistance to being exposed to reading and listening skills in both foreign and second language learning situations.

Successful language learners have also been described as those who build language learning techniques and practices. Cook (2013) justified that the process of vocabulary development will take place in light of giving learners opportunities to first be introduced to new words and their meanings, and then to be placed in situations where they must retrieve, recall, and use the target vocabulary items across a variety of settings and circumstances.

However, Kayi-Aydar (2018) acknowledged that vocabulary growth is multidimensional, needing not just knowledge of word meanings but also pronunciation, spelling, grammatical features, connotations, morphological alternatives, and semantic linkages. When English learners are scaffolded and led, they can successfully develop vocabulary.

Meanwhile, the extent of one's vocabulary can predict eventual reading success and overall academic accomplishment. Because pupils are likely to come across 100,000 words that they are unfamiliar with, those who have a strong vocabulary find reading easier and improve their vocabulary as they read. Kindle has defined this term (2011).

Despite its importance, Roe, et al. (2011) pointed out that learning and teaching language is one of the most difficult abilities to master. This problem could be caused by bad schemata. Students with less prior knowledge, according to the Schema Theory, have more difficulty learning new terms. They may also be affected by the Matthew Effect, which occurs when pupils who do not read well do not read, resulting in a lack of vocabulary building opportunities.

According to Cruz (2015), vocabulary knowledge is important in the Philippines, especially for senior high school students, in order to meet the Department of Education's (DepEd) competences and to endure additional reading demands, which are mainly intellectual. The core, applied, and

even specialized subjects, whether pupils are enrolled in TVL or academic strand, are among the senior high school subjects that require a lot of reading and language skills. The same subjects focus on skills that are required to grasp tertiary-level English studies. However, not all tertiary students have been prepared to meet the requirements. Poor vocabulary is caused by a variety of circumstances, including poverty, a lack of exposure to meaningful discourse, vocabulary instruction, and poor reading. Students struggle with fluency, standardized testing, and reading in general as a result of their weak vocabulary. As a result, the researcher came to the conclusion that in order to grow one's vocabulary, one must first grasp vocabulary acquisition techniques and attitudes, as well as the importance of both strategies and attitudes in vocabulary improvement.

Literature Review

2.1 Learning a language through vocabulary learning

According to Easterbrook (2013), learning a language is a long, complex, and gradual process in which knowledge about the language is acquired, stored, retrieved, and used. Learners use language learning strategies (LLSs) to attain this goal, which are defined by Oxford (2020) as specific activities, behaviors, stages, or techniques that students frequently use to increase their progress in gaining second language (L2) abilities and competency. Internalization, storage, retrieval, and use of the new language can all be aided by these tactics.

Cohen (2011) defined LLSs as thoughts and behaviors that language learners actively choose and operationalize to help them carry out a variety of activities from the beginning of their learning to the most advanced levels of target language (TL) performance.

Similarly, Griffith and Cansiz (2015) proposed the following definition: acts chosen (either consciously or unconsciously) for the purpose of language learning and regulation. Despite various discrepancies in definitions (mental activities vs. actions, conscious vs. automatic behaviors), LLSs are valuable tools for learners to improve their language acquisition efficiency. Based on the criteria provided above, the author of this article believes that LLSs (with VLSs as a subclass) are actions or mental processes that learners utilize actively to support and regulate their own learning.

Schmitt (2015), on the other hand, created a thorough taxonomy of VLSs. These were classified into two groups: discovery techniques, which are used to figure out what a word means, and consolidation strategies, which are used to remember what a term means when it comes up again. In turn, learners' discovery techniques were classified into determination strategies (using a dictionary, context clues, or structural understanding of the word to identify the meaning of a new word on their own) and social strategies (when learners ask someone who knows for the meaning).

Easterbrook (2013), Cohen (2011), Griffith and Cansiz (2015), and Schmitt (2015) have all emphasized the difficulty of acquiring a language through vocabulary learning. This is a time-consuming process that must be injected with the appropriate approaches or methodologies in order to succeed. It's also been argued that learning a language is impossible without first acquiring vocabulary.

2.2 Vocabulary learning strategies

The use of methods is required when learning a vocabulary. Learners use social strategies (such as practicing the meaning of new words in a group), cognitive strategies (which include repetition and mechanical methods such as using word lists and flashcards to study vocabulary), memory strategies (which involve using imagery or grouping to link the word to be learned with existing knowledge), and metacognitive strategies (which include planning, monitoring, and evaluating learning), according to Webb & Webb.

As a result, teachers should create opportunities for students to meet words in a variety of situations (Webb & Nation, 2017) and train them to apply effective VLSs tactics (Alqahtani, 2015), as these pedagogical actions contribute to enhancing students' vocabulary competency. In this approach, regardless of the amount and quality of direct vocabulary instruction they get in the English language classroom, learners can contribute actively and independently to the growth of their vocabulary both inside and outside the classroom.

Furthermore, the usage of tactics is influenced by a variety of factors in the learning environment, including the teacher, students, classroom, parental support, and social and cultural norms (Gu, 2013). The learner's linguistic proficiency and maturity play a significant effect. Younger learners or novices typically utilize shallower tactics, while more cognitively developed learners or those with higher degrees of competency use deeper strategies (Cohen & Aphek, 2011).

Furthermore, studying vocabulary is the first stage in learning a language. It is also a constant part of language learning (Gifford, 2013). According to Thornbury, vocabulary development continues long after the grammar system is in place (2012). Zimmerman (2019) also described language learning as a lifelong process. In interviews, personality tests, and even many competitive exams, vocabulary aids in judging a person. It was discovered that the vocabulary test and overall intelligence had a substantial relationship.

According to Gifford (2013), a person with a greater breadth and depth of vocabulary has a greater ability to communicate and understand a conversation, and is therefore regarded intelligent. Any language's vocabulary is essential. Even a slight change in pronunciation can easily fool listeners. It is also necessary for effective communication when using language skills.

Gifford (2013) has discussed the relationship between vocabulary and linguistic abilities. Reading and listening vocabulary is a type of vocabulary that aids comprehension of linguistic material while reading and listening. Reading vocabulary is the most extensive since it aids in recognition and understanding.

The situational and nonverbal hints, on the other hand, encourage listening vocabulary. Furthermore, reading material has a substantial influence on vocabulary and understanding (Curtis, 2016). Writing and speaking vocabulary are two types of vocabulary that are utilized in written and oral communication. Users' verbal thoughts drive writing vocabulary, yet speaking vocabulary is erroneously used due to a lack of understanding of nuances that are compensated by non-verbal indications. Vocabulary is vital for the advancement of four language abilities as well as efficient communication, whether it is receptive (passive) or productive (active) (Gifford, 2013).

Finally, there is no one-size-fits-all method or mix of strategies that can be determined to be the most effective. Instead, each student must choose tactics that are appropriate for their learning environment and requirements. However, it is the instructor's responsibility to abandon traditional vocabulary teaching methods, which are still widely utilized in many EFL settings around the world, and in which the teacher is the sole authority and source of all knowledge, and learners are merely passive recipients (Ali & Zaki, 2019).

To summarize, Webb & Nation (2013) stated that there are four ways for learning vocabulary: one that involves mingling with people, another that uses the brain and memory, and a fourth that involves planning and evaluation. In terms of cognitive and memory methods, Alqahtani (2015) concurred with Webb & Nation (2013). It is a wonderful approach to understand and memorize a vocabulary by repeating words over and again.

Gu (2013), on the other hand, agreed with Webb and Nation (2013) in that vocabulary development is primarily a social activity. They feel that acquiring vocabulary should be done in groups rather than individually. Cohen and Aphek (2011), on the other hand, argued that methods are determined by learners' capacities. They believe that younger students should use simpler tactics, whereas older students should employ more advanced ones. Vocabulary learning is a step-by-step process, according to Gifford (2013), Thornbury (2012), and Zimmerman (2019). They believe that mastering vocabulary is critical to a student's success in school. Curtis (2016) and Ali & Zaki (2019) both agreed that knowing and comprehending terminology, whether spoken or written, qualifies someone as competent. All of these authors have a common belief. Learning vocabulary is a two-way process in which the teacher professionally instructs and the pupils actively and truly study.

2.3 Attitude in Vocabulary Learning

Students believe vocabulary is a critical component in their capacity to perceive and express themselves clearly in oral communication, according to Vasu and Dhanavel (2015). Even if the book contains one or two unfamiliar terms, children should be able to comprehend it without difficulty. In written communication, pupils may prefer to express themselves using common terms rather than formal sentences. Second, language learners prefer to learn from their peers as well as through mobile phones, laptops, the Internet, and SMS. Third, female students employed more resources to acquire language than male students. As a result, the study demonstrates how students' attitudes about vocabulary learning are influenced by gender and media. In general, pupils understand the importance of vocabulary and the need for vocabulary learning resources.

There was also a report that looked into the vocabulary attitudes of students. Students' attitudes are unaffected by their ambitions, according to the data (academic vs. leisure). Whatever the goal, university students were enthusiastic about vocabulary approaches. Previous research has related positive attitudes regarding reading texts to the application of cognitive and metacognitive learning approaches, as well as perceived task worth. Positive attitudes among university students predict learning motivation and academic success, whereas negative attitudes predict motivation and academic success in the opposite direction (Mega, et al., 2014).

Finally, Vasu and Dhanavel (2015) and Mega, et al. (2014) place attitude in vocabulary learning at the top of their lists. They believed that no language learning could take place without a positive attitude toward it. When it comes to acquiring vocabulary, attitude is so important that if it is compromised, learning success may never happen.

2.4 Alignment of the Language and Literacy Domains with the 5 sub-strands

Finally, Vasu and Dhanavel (2015) and Mega, et al. (2014) rank attitude as the most important factor in vocabulary development. They believed that learning a language was impossible without a favorable attitude toward it. When it comes to learning new words, attitude is so crucial that if it is harmed, learning success may never occur. At progressively demanding and advanced levels, the abilities, grammatical items, structures, and other types of texts will be taught and repeated. Using this method, students can progress from the fundamentals to greater levels of language proficiency (Department of Education, 2016). The alignment of the language and literacy domains with the five sub-strands of listening, speaking, reading, writing, and viewing is shown in the table below.

Table 1. Alignment of the Language and Literacy Domains with the 5 sub-strands

Integrated Language Arts Domains	LISTENING	SPEAKING	READING	WRITING	VIEWING
1. Oral Language	√	√			
2. Phonological Awareness	√				
3. Book and Print Knowledge			√		
4. Alphabet Knowledge	√	√	√	√	√
5. Phonics and Word Recognition	√		√	√	
6. Fluency		√	√		
7. Spelling			√	√	
8. Writing and Composition	√	√	√	√	
9. Grammar Awareness & Structure	√	√	√	√	
10. Vocabulary Development	√	√	√	√	√
11. Reading Comprehension 11.1 schema & prior knowledge 11.2 strategies 11.3 narrative text 11.4 informational text			√	√	√
12. Listening Comprehension	√	√			
13. Attitudes towards language, literacy and literature	√	√	√	√	√
14. Study Strategies	√	√	√	√	√

The 5 macro-skills in English are required for alphabet knowledge, vocabulary development, attitude toward language, literacy, and literature, and study strategies, as illustrated in the table above. If a learner succeeds in growing his or her vocabulary skills, these 5-macro skills are also much improved. This is where we can see how vocabulary learning, as well as techniques and attitude, are all valued in the K-12 English language learning curriculum in the Philippines.

Conclusion and Implication

This research looked at the most recent vocabulary learning strategies and attitudes studies, publications, and research papers. Aside from that, numerous related factors are highlighted, such as reading and listening abilities, which are both important skills in vocabulary learning. Following the completion of this work, the author hopes that English teachers, especially those in the senior high school department, would utilize it as a tool to promote awareness of the present issues that students face when studying vocabulary. The author kindly offers this work as a reference to English teachers who find it useful in better understanding their students' vocabulary learning attitudes and practices.

The author wanted to include all relevant literature to fully comprehend students' vocabulary learning strategies and attitudes, which could be very useful in developing innovative projects and interventions to ensure that students achieve their full potential in learning English vocabulary, which is a stepping stone to mastering all other English skills. However, the researcher noticed that there are fewer studies that focus on the most recent or "state-of-the-art" strategies of students in vocabulary learning that have emerged from the modular distance modality that most schools in the Philippines use, and what might be the emerging attitude of students in vocabulary learning given the new normal set-up of teaching and learning processes.

Following the foregoing, it is suggested that English language teachers consider upgrading their pedagogical abilities in vocabulary instruction by attending seminars/workshops on the most up-to-date teaching strategies that will withstand the test of time in the new standard education system. Students' insights from these experiences should be implemented in a real-world setting to reduce challenges with language acquisition.

Finally, all of the associated literatures offered only discussed basic studies undertaken by teachers to better understand their students' vocabulary attitudes and methods. Despite the fact that these literatures provide a clear perspective on students' strategies and attitudes toward vocabulary learning, the author did not come across anything that mentioned an innovation or project initiated by a researcher or teacher to address concerns about students' vocabulary learning. That becomes a very important target for future research.

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Identifying and Understanding the Language Curriculum Across the World

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Article Info	Abstract
	This article compares and contrasts the Language Curriculum in the United States, United Arab Emirates, Mongolia, Philippines and Indian Language Curriculum for the year 2022. This is a comparative analysis; a research journal conducted to analyze the ideological, cultural, and political-economic elements that impact the development of language curricula in five different countries. Furthermore, the educational goals and ideologies that underpin both curricula are discussed. A very intriguing conclusion emerges when considering the curricula's unspoken aims. All the five (5) nations' language and literature curricula emphasize the significance of citizenship and character education and are interwoven into curricula instruction.

Meanwhile, the US language curriculum prioritizes creating American identity, with a focus on improving learning for the professional workforce and career-ready persons, which will help the global economy in the future. Meanwhile, moral and religious training is prioritized in the United Arab Emirates, Mongolia, Philippines and Indian language curriculum. Language education or curriculum are intertwined in nation-building. After examining, comparing, and contrasting both curricula, the author discovered that the US successfully instills character education to mold the worldview and characteristics of its population derived from their clear ideology, whereas the United Arab Emirates, Mongolia, Philippines and India are rather unexplained and ambiguous. As a result, this article demonstrates that there is an opportunity for development for educators and educational leaders in the United Arab Emirates, Mongolia, Philippines and India to be more explicit in determining which character is best exposed in the language curriculum.

Introduction

In this article, the author examines, identifies, understands the language curricula across the world, and aims to give a framework for discussion.

One of the most important symbols of social conduct is language. We utilize language to communicate crucial social messages about who we are, where we come from, and whom we associate with through language's usual movement of information (Goldberg et al., 2015). Language is a medium of communication among members of society. Language is an important part of cultural expression. It is the technique used to communicate group identity's customs and ideals (Parra, 2016). According to Garcia (2016), the language functions' significantly tied to a language's social character since there are interdependence and mutual conditionality relationships between language occurrence and society with its intrinsic culture.

Further, language is an essential component of civilization. It elevated man from a primitive to a plane that he was capable of achieving. The language was the only way for a man to become a man (Axel, 2014). As per Abad (2005), the one important distinction between humans and animals is that humans are the exclusive possessors of language. Animals, without a doubt, have some degree of communication ability, but it is not only inferior to human language in degree but also profoundly different in kind. Moreover, it is frequently surprising to learn how much we may assess a person's origin, character, and intentions based only on their language, dialect, or, in some cases, the choice of a single word (Chun, 2016).

Language is one of the most noticeable, visible, and essentially important of man's faculties. The value of language to man and society cannot be overstated (Durano, 2008). As a personal entity, language is not only a tool of communication between persons, but it is also a means of expressing one's individuality.

Language shapes the individual from birth, according to sociology. Additionally, Rogers (2014) stated that a child learns the majority of what he or she knows about the world through language. As a result, a language subject was developed by different educational institutions around the world that focus on language meaning, concept, and acquisition, as well as home language, school language, spoken language, and written language. It also discusses the purposes of language and the link between language and culture, specifically it was called language curriculum (Roca & Valdes, 2016).

Language curriculum development, like other areas of curricular activity, is concerned with ideas and techniques for learning design, management, and evaluation (Department of Education, 2016). However, although language curriculum development has generated a significant educational business in general educational practice, what is intended by language curriculum development in language instruction is frequently fairly narrowly defined (Kubanyiova & Crookes, 2016). The emphasis has been focused on language syllabuses rather than the larger processes of curricular reform. As a result, there was a dearth of literature on language curriculum development until recently. Such debate, which can be found in language teaching publications from the 1940s, 1950s, early 1960s, and 2000s, is largely concerned with techniques for selecting linguistic material for language courses.

Subsequently, the United States has no national curriculum in terms of language (Teale & Thompson, 2019). As a result, curriculum creation, instruction, and material have been dispersed among districts or states. This allows each state's leaders complete power to create their own curriculum. In terms of language curriculum, the United States includes language and literature education (CCSS, 2020), which includes both literary and non-literary works. For the past two decades, most states have maintained that literary instruction should be based on educational standards developed by each state (Teale & Thompson, 2019). These are the principles that students should strive for.

Unlike in the United States, where the curriculum is centralized and formed by the Ministry of Education and Culture, the curriculum in India is centralized and developed by the Ministry of Education and Culture (Ministry of Education and Culture, 2018). The Indian language and literature curriculum serves as a strategic basis for knowledge. Students should grasp how to use the Indian language and literature effectively in order to master other knowledge.

In the United Arab Emirates (UAE), the education sector is experiencing substantial educational reform, particularly in terms of teaching and evaluation techniques across all subject areas. The Abu Dhabi Education Council (ADEC) has mandated the revamping of English language teaching and assessment in grades 6-12 through the introduction of English Continuous Assessment Rich Task (ECART), a framework that assists teachers in implementing ongoing and alternative assessments in the English as a Foreign Language classroom (EFL).

As a result of English's global status and widespread use in the UAE, where it has become "associated with business, modernity, and internationalism" (Clarke, 2007, p.584), the Ministry of Education recognized the importance of reforming English teaching and learning in schools and higher education institutions. The UAE government recently mandated that public institutions utilize English as the medium of teaching, putting pressure on K-12 schools to graduate students who are fluent in English (Fox, 2007).

As a consequence of the implementation of an unique English language framework termed "English Continuous Assessment Rich Tasks," the Abu Dhabi Educational Council (ADEC) has brought about enormous improvements in the curricula and assessment of English language (ECART).

Strydom and Veliu (2011) state that the ECART "is mandatory for all students following the ADEC program" (p.55). However, the attitudes of Emirate EFL instructors regarding the ECART, particularly the new teaching and evaluation procedures incorporated in it, and how such ideas may affect their classroom practices, remain a relatively unexplored subject. For language reform to be effective in the UAE, Emirate teachers' attitudes about language teaching, learning, and assessments must align with the ECART's content, aims, and assessments. As a result, instructors' beliefs are an essential aspect that should be investigated for ECART success.

Currently, the UAE considers education to be essential to the country's growth ambitions. As a result, the government saw educational reform as a crucial element in sustaining the UAE's prosperity and development by delivering well-educated and highly competent individuals to occupy positions in the corporate and governmental sectors. The revision of language curricula in UAE schools is part of a bigger reform agenda advocated by the UAE Ministry of Education and Youth in its "UAE Education Vision 2020."

This educational plan advocated for fundamental changes in the principles, practices, and methods of teaching/learning employed in schools (UAE Ministry of Education and Youth, 2000). There has been a push to modify the conventional teaching techniques that have been common in UAE schools to a more learner-centered approach in which students take responsibility for their own learning (Truscott, 2010).

Furthermore, EFL teachers were advised to shift away from using standardized examinations to assess language learners and toward including more alternative and genuine assessment approaches that "occur as part of the learning process rather than as an artificial add-on" (Truscott, 2010, p.5).

The Abu Dhabi Education Council (ADEC), which governs schools in Abu Dhabi, Al Ain, and the Western region, has mandated massive reform in the teaching and assessment of all subject-matter areas in order to fulfill its vision of a New School Model, which was intended to "improve student learning experiences and raise the academic outcomes of Abu Dhabi students to an internationally competitive level" (Abu Dhabi Education Council, 2010, p.2). ADEC was founded in 2005 and is known as "the supra-government education agency entrusted with overhauling education in Abu Dhabi's capital city and eponymous emirate" (Gallagher, 2011, 7 p. 62).

Furthermore, ADEC is in charge of establishing educational standards that regulate K-12 schools in the emirate of Abu Dhabi. According to their website, ADEC seeks to develop education and educational institutions in the Emirate of Abu Dhabi, to implement innovative educational policies, plans, and programs aimed at improving education, and to support educational institutions and staff in achieving national development objectives in accordance with the highest international standards.

Additionally, because language had previously been infrequently studied in Mongolia, teachers were nearly nonexistent when language like English began to spread throughout the country following the democratic revolution. Prior to 1990, the study of language curriculum was restricted to a small group of students at the National University of Mongolia's interpreter program, and skilled teachers of the language were few and far between (Ibid, 5).

As a result, the Education Ministry decided that, in order to address the critical shortage of language curriculum instructors, a large-scale effort to retrain former Russian teachers was required. The government began educating teachers in academic-year intensive training programs in 1992. Since the first class graduated, over 400 Russian language instructors have been educated

to teach English, and the bulk of them are now teaching in secondary schools in both the city and the countryside (Ibid, 5). Each major state institution in Ulaanbaatar's capital (National University of Mongolia, University of the Humanities, Mongolian Technical University, and Mongolian Teacher's Institute) has created bachelor's and master's degree programs in language teacher training.

As of 2003, there were 634 language curriculum instructors employed in public secondary schools, 64 in public college or university departments, and around 50 in private secondary schools or universities (Mongolian Ministry of Education, Culture and Science, 2003). Because of the growing importance of language curriculum in the early 1990s, the study of the language increased dramatically in secondary schools and private institutes throughout the country.

As a result, the government determined that an official strategy on language instruction was required if substantial reforms were to be implemented at the national level. Although some substantial but unofficial innovations in language education had been implemented for several years prior (such as the teacher retraining courses noted above), the Ministry of Education did not issue an official policy decision on English language instruction until 1995.

In addition, in 1998, the Ministry of Education formed a cooperation with the Soros Foundation to provide a set of English textbooks for secondary schools. Until then, language curriculum lessons in public secondary schools were unstandardized, and teachers were unable to accurately assess their pupils' skills using defined criteria. Teachers were also having a tough time arranging classes because teaching tools and textbooks were nearly totally unavailable. The first series of textbooks for grades 5-10 was completed in 2000 (the entire series is currently being reedited to include new material), and now that the textbooks are being used in every state secondary school in the country, the Ministry of Education has been able to draft an official series of changes to its national language curriculum.

The language teaching curriculum standards, which were revised in 2003 13 and will be officially implemented in 2005, address the following areas: (a) all language classes and teachers' syllabi should be based on specific competencies in the four skills found in the national textbook series, (b) testing and evaluation will be based on these competencies, (c) the communicative and constructivist approaches to learning will be stressed (d) if teachers employ themes and subjects outside of the textbook, they must be culturally and educationally acceptable, and (e) grammar instruction should be integrated and assessed with the four skills, rather than as a distinct subject (Mira, 2003).

As language curriculum becomes more popular, new advances in language curriculum education in Mongolia are anticipated to emerge in the next few years. The MPRP administration issued an official white paper on language curriculum education in 2000. It stated that the Ministry of Education, in collaboration with participating international organizations, should seek to diversify the language curriculum resources of schools across the country, update language curriculum to a level consistent with "international" standards, and build English "villages" for summer school

programs. However, given the recent defeat of the MPRP by the Democratic Coalition in the June 2004 legislative election, it is uncertain whether these pledges would be fulfilled. In addition, the newly formed coalition has not yet established its formal position on language curriculum instruction.

Meanwhile, in the Philippines, it has been noticed that a 10-year basic education curriculum is still overburdened and that students cannot legally engage in contracts for work and business after they graduate from high school (Calderon, 2014). It was also discovered that when kids graduate from high school, they lack maturity and competency in a variety of academic areas. In actuality, records reveal that the performance of basic education pupils in the Philippines in national achievement tests (NATs) across topics remained much below the Department of Education's objective of 75%. Because of recent regional developments and the need to educate ICT-literate persons, the Philippine government has pushed for a new basic education curriculum that aims to deliver a quality 12-year basic education program for Filipino children.

Along with these advancements, the curriculum is being reviewed, and the language curriculum is being improved in order to generate a pool of talents that have a good grasp of the English and Filipino language. However, several textbook authors and classroom instructors have indicated that they are having difficulty adopting the K-12 language curriculum in terms of English for a variety of reasons (Pazzibugan, 2018; Valerio, 2020). For example, instructors reported being perplexed about re-planning their classes as a result of curricular revisions (Valerio, 2020). Some writers found problems in aligning the specified skills each week into one consolidated and cohesive lesson while authoring textbooks. One source of these difficulties is the language curriculum's lack of clarity and precision. Before teachers can effectively execute a language curriculum, they must thoroughly comprehend its fundamental concepts and consequences for classroom practice (Carless, 1998; Rahman, 2014; Smit, 2015), as well as the pedagogical principles it promotes (Wang, 2018). As a result, the new language curriculum must be clear, explicit, cohesive, and connected with proven pedagogical ideas such as 21st-century learning. However, keep in mind that education is a complicated institution that is enmeshed in a cultural, economic, and political environment.

One important aspect of the curriculum reform is the incorporation of a 21st-century learning framework to assist students in succeeding in the 21st-century environment (DepEd Order No. 55, 2015; SEAMEO INNOTECH, 2012). The K to 12 curricula extends education by including a two-year senior high school with technical and vocational subjects. However, this education reform should not only focus on educating students for competitive jobs and entrepreneurship, closing development gaps, reducing overcrowding in the curriculum, and incorporating ICT. Equally important is transforming them into socially conscious and productive citizens and providing them with the tools they need to resist the exploitative and oppressive aspects of globalization that benefit only the global elite (Jackson, 2014).

Although clarity, specificity, coherence, and alignment of a curriculum to 21st-century learning and language learning principles are important components for successful curriculum

implementation, they may not be sufficient conditions to enhance language education. Other factors to consider include learners' overall well-being, a safe and healthy learning environment, pedagogical processes that facilitate learning (UNICEF, 2018), facilities (Chun, Kern, & Smith, 2016), teachers' roles and responsibilities (Kubanyiova & Crookes, 2016), implicit language practices, and the degree to which the curriculum is understood, valued, and implemented (Wiley & Garcia, 2016). .

This article aims to identify and understand the language curriculum across the world in this 21st-century learning. The report finishes with probable implementation issues, recommendations for future design and implementation, and implications for future research. This paper aims to demonstrate that a common language is one of the most significant elements of a community and that the continued use of the same language is the most definite indication of a people's historical continuity.

This shall also investigate the similarities and contrasts of the language curriculum in the United States, United Arab Emirates, Mongolia, Philippines and India for the year 2022. The author will look into what can be gained from the five different language curricula.

In a nutshell, these researchers above emphasize the importance of learner quality, learning environment, content, procedures, and sociopolitical, cultural, and historical contexts in the successful implementation of the language curriculum

Literature Review

This part discussed the collected literature and studies to support and guide the paper. Additionally, the collected supporting details came from books, journals, magazines, articles, published dissertations, and previous research, that are in line with identifying and understanding the language curriculum across the world.

2.1 Policy of Language Curriculum

Policy support for the use of the mother tongue as a language of instruction is evident in Southeast Asian countries. To some extent, mother languages are employed in teaching. However, this does not imply that Mother Tongue is a language of teaching in all subject areas. Singapore allows numerous languages as subjects, but only prominent ones such as Malay, Mandarin, and Tamil (Ministry of Education, 2017).

In Thailand and Vietnam, mother tongue as a medium of teaching is still used in some action research programs (Djite, 2018). In Malaysian national-type primary schools, dominant mother languages are employed as the language of teaching. In various parts of the nation, non-dominant languages are taught as subjects (David and Govinsamy, 217; Nagarathinam, 2018). Mother Tongues are used as the language of teaching in all public schools in the Philippines, from

kindergarten to Grades 1, 2, and 3. (DepEd, 2017). According to this assessment, the five Southeast Asian nations are gradually moving toward possible mother tongue-based multilingual education.

Furthermore, legislative developments in Southeast Asia over the last decade have mainly been promising in terms of the use of Mother Tongue languages in education and the latitude provided to ethnolinguistic minorities. If existing trends, efforts, and lobbying continue in the following years, it is probable that the condition of non-dominant languages and ethnolinguistic minorities will improve in various Southeast Asian nations.

This is consistent with SEAMEO's (2019) conclusions that MTB-MLE has begun in these nations, as well as in other regions of the world. It is non-formal in character and generally begins with community and Non-Governmental Organization activities in adult and pre-primary education. As a result, the government's formal system may integrate local language components in the curriculum, primarily via speaking these languages or teaching them as topics in schools. This has prepared the path for more robust types of multilingual education, or even a shift in national language policy, as seen in Papua New Guinea (SEAMEO, 2019).

2.2 *Language Curriculum in the Philippine Context*

Several thousand languages are used in global academic institutions to transmit meaning. This language variety creates a plethora of issues in the educational system. Questions such as: What language should students learn, and what language should be used in schools for instruction? Require serious analysis in order to comprehend the current condition of language use in education. Indeed, the importance of language in cognition and learning processes is widely known (UNESCO, 2017).

Several studies conducted throughout the world have shown that using mother tongue as the primary medium of instruction in elementary school is successful. Improved academic skills (Cummins, 2010; Thomas & Collier, 2017; Walter & Dekker, 2018); stronger classroom participation (Benson, 2010; Dutcher, 1995); increased access to education (Benson, 2014); and development of critical thinking skills are among the benefits of mother tongue highlighted in these studies (Brock-Utne, 2016). Research has also found that bilingual education increases cultural pride (Cummins, 2010; Wright & Taylor, 1995), increases parent engagement (Cummins, 2010; Dutcher, 1995), and increases females' success (Benson, 2015; Hovens, 2012). Another significant advantage of mother tongue training is its basis for acquiring literacy in other languages (Cummins, 2010; Thomas & Collier, 2017).

Moreover, many youngsters are educated in languages that are not spoken in their immediate community in many parts of the world. According to studies, these youngsters are over-represented in the out-of-school population. As a result of increased attention to this issue, several nations have begun to experiment with the use of various Mother Tongue languages in education (UNESCO, 2015).

In the Philippines, experimental investigations on the use of mother tongue in the pre-elementary classroom had favorable outcomes in terms of literacy and second language development. Its importance is highlighted in the execution of DepEd Order No.16, s. 2012, also known as Guidelines on the Implementation of Mother Tongue-Based-Multilingual Education (MTB-MLE). According to this DepEd Order, the MTB-MLE will be implemented in all public schools, especially in Kindergarten, Grades 1, 2, and 3, as part of the K-12 Basic Education Program beginning in the 2012-2013 school year.

Because it was just adopted three (3) years ago, issues and obstacles have arisen. Some of these include a lack of supplies and infrastructure and insufficient teacher training. With the value of mother tongue-based instruction in learning processes in mind and awareness of national and local issues regarding its implementation, this study determined how Mother-Tongue-Based Multilingual Education is implemented in Southeast Asian countries, specifically Malaysia, the Philippines, Singapore, Thailand, and Vietnam. It specifically assessed the parallels and variations in their implementation in terms of language policy, curriculum, and the qualifications and training of instructors. It also identified excellent practices and problems in the deployment of MTB-MLE. Following that, appropriate output was created to enhance teaching among local academic institutions and educators in the Philippines, which will ultimately aid in curricular improvement and possibly change.

2.3 Language Curriculum and Literature Education of U.S

Curriculum Development in the United States changed somewhat in 2010. It is the year in which the United States is on the verge of establishing what is known as a national curriculum. The Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA) have pushed most states in the United States to embrace Common Core State Standards (CCSS) (Teale and Thompson, 2019).

These requirements are intended to help ensure that all pupils are college and career ready in terms of literacy (CCSS, 2017). The other change between the previous standards is that the CCSS now provides literary teaching to all American secondary schools, which is known as "Reading Standards for Literature for Grades 9-12." (Teale & Thompson, 2019). The Council of Chief State School Officers (CCSSO) and the National Governors Association lay the groundwork for this foundation, resulting from states' consistency in developing local education standards (CCSS, 2017). The standards are the result of an extensive study involving state departments of education, researchers, assessment makers, professional organizations, and educators from kindergarten through college, as well as parents, students, and society (CCSS, 2018).

Furthermore, the CCSS establishes a set of objectives for states, districts, schools, and instructors to use in incorporating the standards into local curricula (Jones & King, 2017). However, schools may modify the CCSS in a different way. Because the standards do not prescribe how teaching should be carried out, the contents and directions are up to instructors' and curriculum creators'

discretion (CCSS, 2017). Teachers, for example, may utilize textbooks and literary books that differ from those used in other states.

Moreover, there has been no substantial change in the development process. The curriculum begins with a national parliament agreement, proceeds through the ministry of education and culture, which involves a variety of educational stakeholders such as scholars, curriculum developers, academic administrators, teachers, parents, and business actors, and finally reaches schools and classroom teachers (Thomas, 1991 cited in Galam, 1997).

The content standards are designed and documented by the Ministry of Education with the assistance of educational practitioners, curriculum creators, scholars, school administrators, and instructors. Teachers will execute and interpret the curriculum in the classroom as lesson designers, instructors, and evaluators. Parents are involved because they supervise the learning activity at home as prescribed by the curriculum.

Additionally, the stakeholders are reacting to the existence of these Common Core State Standards. These criteria have been formally approved by 47 of the 50 states (Jones and King, 2015). The Massachusetts Board of Elementary and Secondary Education (2016) improved the standards by designing its own curriculum, instruction, and assessment. In contrast, the state boards of education in Virginia and Nebraska have refused to adopt the standards since both states are in the process of redeveloping language curriculum and are still trusted by local teachers. Another reason for the rejection is the Federal Government's goal of pursuing money rather than excellence (State Education Standard, 2017).

Meanwhile, higher education is eager to participate in this endeavor. Because the standards seek to build college and career preparedness, higher education favorably reacts to these standards, allowing for easy tracking of college and worker language capacities. In contrast, underprivileged pupils, such as those with autism, react in the opposite way to this norm. This will be difficult for handicapped persons since they are expected to reach the criteria while still coping with their impairment (Marsh, 2019). People in the business sector, on the other hand, will be considerably more interested in the new language curriculum development since it will help their organization thrive by locating talented individuals sooner.

2.4 Language Curriculum and Literature Education of India

Because India is largely multicultural, the government grants local governments more flexibility to build their own curriculum in the topic of local knowledge. It is a reaction to the need for cultural identification as well as wisdom in shaping Indian identity. Furthermore, it is consistent with the development of language and literature curricula by utilizing local literature to maintain Indian culture (Rudy, 2018, cited in Inderawati, 2019).

As a reaction to the global world's poor academic competency, India has now introduced Curriculum 2013 (K-13). The modification is based on learning methodologies and curriculum

organization (Ilma and Pratama, 2015). India has embraced text-based learning in the language and literature curriculum, in which language is treated as a text rather than as a set of rules (Ilma and Pratama, 2015). It more accurately reflects the speakers' ideals and ideologies.

Similarly, the curriculum 2013 for Indian language and literature has not yet been accepted by all provinces (Sufanti, 2016). Some provinces are still examining the curriculum, while others are ready to go and are in the process of implementing it. Any educational stakeholder will find benefits and drawbacks in the curriculum (Ilma and Pratama, 2015).

One may believe that no adjustments are required because of the irregularity of curricular labeling in the Indian educational system. The other believes it is a magnificent plan for moral and mental change.

However, Indian society differs from that of the United States in terms of goals and practices. If the United States' reformation is more career-oriented, Indian society wants the language curriculum to be more cultural and morale-building in nature (Ministry of Education and Culture, 2018). This topic is important because all educational practitioners, from policymakers to teachers to parents, are worried about the decline of morality in Indian society. The new curriculum aims to establish cultural identity and moral values and form critical thinking (Ministry of Education and Culture, 2018).

2.5 Language Curriculum and Literature Education of United Arab Emirates

The issue of Arab pupils underperforming in Arabic language throughout elementary and secondary schools in the UAE, and failing to have the necessary written and spoken abilities, has been repeatedly emphasized over the years (Pennington, 2015b). It was recently claimed that Arabic is on the verge of becoming a foreign language in the UAE (Pennington, 2015b). In response to this unique problem, the MOE's 2015–2021 strategy prioritizes the development of students' Arabic language abilities as the primary priority in achieving its goals (MOE, 2015c). The proposal emphasizes the importance of rethinking the Arabic language curriculum and pedagogy.

The UAE, as an Arab country with a diverse population and official bilingual education in state-funded schools, provides an unusual setting for study on first language curriculum creation and regulations. According to internally gathered data, the Federal National Council (FNC) stated in 2013 the prevalent nature of inadequate Arabic literacy skills among UAE youngsters. Hundreds of youngsters are unable to read or write Arabic, making this a "new handicap" problem (Salem, 2013).

Currently, the Arabic language in schools is not given the attention it deserves in order to facilitate student development due to a lack of time. Furthermore, the quality of human resources and educational materials in Arabic is inferior to that of English courses, making it harder to improve and innovate (Al Farra, 2011). The director of the MOE's curriculum section stated that the

Ministry is eager to improve Arabic language and has accepted the task (ECSSR, 2011). As a result, the MOE has commenced work on an Arabic language development document that contains a framework for skill accumulation from elementary to secondary school pupils (UK Years 1 to 11).

Today's children in the UAE are more likely to have superior English reading and writing abilities than Arabic. Since 2013, the issue of Arabic literacy among schoolchildren has been in the limelight, with frequent media and public dialogues urging for the MOE to take rapid and reactive action to solve the issue.

The UAE's curriculum development issues have contributed to the spread of Arabic language illiteracy. MOE efforts to improve Arabic reading skills may be perceived as contradictory to its reforms aimed at globally competitive, 21st-century abilities. However, the MOE's 2010-2020 policy emphasizes bilingualism in future education reform initiatives, with an emphasis on increasing students' skills in both Arabic and English. With these problems in mind, the UAE has declared that Arabic is the official language of all national entities, and has designated Arabic skill development as a core and top priority in the Ministry of Education vision (Gallagher, 2011).

Moreover, when complex and 'wicked' policy domains develop, the policy literature finds that learning between policy players and the formation of policy networks are desired in policymaking (Rittel and Webber, 2019). In the case of the Arabic language curriculum, the multifaceted issues confronting policymakers participating in policymaking necessitates MOE involvement in finding forms of collaborative learning or policy networks. As a result, MOE's development of the Arabic language curriculum policy community has the potential to have an influence in areas where the difficulties described earlier may be addressed. For example, by enlisting the help of external scholars, these policy communities can establish a practice of policy and curriculum assessment. Similarly, the policy community can help to build local capacity in policy and curriculum by supporting chances for UAE citizens to participate in learning processes with international experts.

2.5 Language Curriculum and Literature Education of Mongolia

There had previously been limited chances to investigate how Mongolians acquire and learn English due to the country's scarcity of English-speaking students until barely a decade ago. The issue of language acquisition among the population has grown critical as the number of students and users has constantly increased since 1990, making English the most frequently studied language in Mongolia. As a result, a better knowledge of how Mongolians learn English can lead to more successful teaching techniques by native and nonnative teachers in the nation, as well as the development of more appropriate curriculum. Finally, another fundamental reason why it is critical to investigate Mongolian students' learning abilities is that English speakers throughout Mongolia, like in many other countries, are beginning to construct their own type of nonstandard English. According to Bhatt, "linguistic and literary originality in English is driven less by its native speakers and more by nonnative speakers, who outnumber native speakers 4:1." (2017).

In many cases, "Mongolian English" functions as a language of communication, and it influences the learning and general usage of the language in the nation. Appreciating the evolution of Mongolian English can thus provide additional insights into how English is learned in the country. Observing the different areas where learners either show a significant degree of interference between the L1 and L2, have special learning challenges, or have unexpected ease can aid teachers in explaining Mongolian pupils' individual requirements.

However, because no data on the issue of English acquisition among Mongolian students had previously been gathered, an observational research was performed in 2003 at the National University of Mongolia to fulfill this purpose. Over the course of the academic year, two English classrooms with 15 and 17 senior year students (ages 19-25) each were observed. Both classes were general English courses with students testing at an intermediate to high-intermediate level at the start of the course.

As English has grown in popularity in many Asian nations, it has lately been adopted and taught as one of the key foreign languages as part of China's educational reforms in Autonomous Regions. As a result, trilingual education has emerged as a new phenomenon in language instruction in China's ethnic minority regions (Guo Tianxiang, Menggen qiqige and Tang Suge, 2013, pp.48-50). However, in most universities in Inner Mongolia, English is mostly taught by Chinese teachers in the learner's L2 Chinese, rather than in their native Mongolian. Even some Mongolian teachers teach English to Mongolian learners mostly in Chinese, but occasionally in Mongolian, neglecting the fact that for the vast majority of Mongolian English learners, their mother language skill exceeds that of their L2 Chinese and L3 English. One of the main reasons is that there are no adequate textbooks developed specifically for Mongolian English learners in Mongolian.

Furthermore, while they were students, the Mongolian instructors were taught English by Chinese teachers using materials written in both Chinese and English. As a result, they acquire accustomed to thinking in Chinese, making it simpler for them to teach English in Chinese as the primary medium language. Even some Mongolian instructors who do not speak Chinese fluently are teaching Mongolian students English in both Chinese and English. Mongolian instructors can teach English in Mongolian since there is no legislation requiring them to teach English to Mongolian students learning English in Chinese in the Inner Mongolian Autonomous Region. In summary, three languages are employed in the Mongolian learner's English teaching and learning process at university, with the learner's L2 Chinese dominating in most circumstances. Recent theoretical and empirical work has investigated concerns such as instructors' use of L1 and TL in L2 and FL classrooms, student motivation, exposure to language curriculum input, and suitable teachers' use of the L1, with the goal of promoting TL learning at cognitive considerations.

Many SL and FL educators emphasize that if students' motivation is high, they should be exposed to information in the TL (Krashen quoted in Turnbull, M & Arnett, K, 2017, p.205), because L2 educators and researchers have long acknowledged the importance of student motivation on language curriculum learning.

However, how much exposure to language curriculum information is ideal from a theoretical and pedagogical standpoint has been a hot matter of debate. According to MacDonald (2018), instructors' maximum use of the language curriculum in the classroom has an effect on student motivation, and depending on it too much may de-motivate pupils to study (cited in Turnbull, M & Arnett, K, 2016, p.206).

However, the use of L1 in teaching and learning is intended to improve the efficiency of second language acquisition. In the language classroom, L1 has been used effectively for a variety of purposes. For example, the mother tongue can be used as a resource for learners to draw background knowledge; most learners prefer to use L1 as an effective learning strategy in the form of translation technique; L1 use can lower affective barriers to enhance L2 acquisition. Cook believes that students' L1 may be exploited as a resource rather than an obstacle to successful learning, resulting in more authentic users of the language curriculum.

According to Van Lier (2015, p.38), teachers' use of the learner's L1 promotes intake, and teachers can use L1 "judiciously" to facilitate the intake procedure, and teachers' use of the L1 can provide an enhanced form of input that is more easily processed, and as a result, the learners can understand the language curriculum better. Brooks and Donato (2019, p.262) assert that learners can use their L1 to impart meaning to and maintain communication in the language curriculum.

According to previous related studies on teachers' uses of L1 and language curriculum, it is widely assumed that it is more effective to learn a foreign language through learners' most familiar language, which is always their native language in most cases considering intake, while language curriculum can be used to provide plenty of language curriculum input. There has been minimal research on how learners' second languages may be utilized in language curriculum learning. However, three languages are involved in the L3 teaching and learning of Mongolian adults at university in Inner Mongolia: Mongolian, Chinese, and English. L2 proficiency and exposure, according to Tremblay Marie-Claude (2016, p.109), play an important influence in third language acquisition.

However, according to the notion of recency in third language acquisition, which might have an impact on cross-linguistic influence (Cenoz Jasone, 2011, p.8), Chinese is more actively utilized in teaching and learning than Mongolian learners' native tongue in the majority of situations.

2.6 The Educational Purposes and Philosophies of the Language Curriculum

Language curriculum is meant to foster autonomous critical thinking (Stotsky, 2018). Language activities or non-literary works, as well as writing tasks, may broaden student analysis and form their knowledge, which stimulates intellectual growth and enhances autonomous critical thinking (Stotsky, 2018).

Students participate as readers and listeners to grasp what an author or speaker is saying and question the author's and speaker's assumptions to investigate the logic (CCSS, 2017). Similarly, language and literature lessons are designed to improve students' critical, logical, creative, and inventive thinking skills (Ministry of Education and Culture, 2018). However, in actuality, the United States, Philippines, and India may face distinct challenges. The notion of critical thinking is well-known in Western society, which has grown up with more liberal norms. Children are even trained to speak out for themselves and to be self-sufficient.

In contrast, students in Indian and Philippine society still show respect for senior voices as a sign of civility. It is socially acceptable for parents to exercise authority over their children. As a result, pupils are hesitant to express themselves, for example, by voicing their disagreement. As a result, critical thinking activities in class and social life may suffer.

The language curriculum includes an integrated literacy paradigm with the capacity to think critically (CCSS, 2018). It stresses the ability to communicate ideas in the expository and expressive speech by reading, writing, listening, and researching (Stotsky, 2018). Furthermore, students must acquire, interpret, analyze, synthesize, and report ideas and information and write what they read (CCSS, 2018). As a result, it may help develop the ability to do research to answer questions and solve difficulties (CCSS, 2018).

Similarly, the Indian language and literature curriculum is intended to provide a basis for knowledge and literacy. The program is designed to assist pupils in developing higher-order thinking abilities that will help them grasp other subjects (Ministry of Education and Culture, 2018). It is also meant to improve student's literacy skills, such as their ability to communicate accurately and nicely in both speech and writing. Furthermore, the curriculum has now transitioned to text-based learning, in which language is considered text that is used to communicate an individual's viewpoint, attitude, beliefs, and ideology and mold human thinking capacity (Ilma and Pratama, 2015).

However, in the Philippines, literacy development in language curriculum is meant to prepare students for college, workforce training, and life in a technology culture (DepED, 2017). Language curriculum integration is required to develop highly competitive individuals capable of reading complex and informational texts from varied backgrounds for college life and to mold capable workforces early in a highly competitive environment.

Meanwhile, the Indian language and literature curriculum stress literacy development in order to form not just knowledge but also moral understanding. Students are expected to be more informed as well as more kind in their daily lives. Furthermore, there is a historical argument that language curriculum has always been associated with national identity (Applebee, 1974; Frye, 1962; Stotsky, 1994; Willinsky, 1998, 2001 cited in Skerrett, 2018). Meanwhile, the language curriculum in America trains students to be self-governing citizens of the United States (Stotsky, 2018). They offer pupils common ground by describing key works in American cultural history so that the

English language arts curriculum may act as a unifying force in schools and society (Stotsky, 2018).

Further, the language curriculum's goal is in line with the nation's culture, in which everyone is encouraged to pursue their aspirations as a means of achieving success (Jones and King, 2017). It also teaches history and politics through analyzing known works of our nation's literature from a range of genres and traditions, encouraging the philosophical, cultural, political, religious, ethical, and social influences of the historical time that influenced the characters, storylines, and locales (California Department of Education, 2017).

Meanwhile, the language and literature curriculum aims to produce devout and well-behaved individuals (Ministry of Education and Culture, 2018). As a result, moral development through literary works is emphasized in Indian, Philippines, and U.S classrooms, where students can acquire numerous moral teachings from literary works. It is meant to build a national and cultural identity with positive characteristics, religious, social, and knowledge (Ministry of Education and Culture, 2018).

Conclusion and Implication

Comparing the language curriculum in the United States, Mongolia, United Arab Emirates, Philippines and Indian language and literature curriculum broadens the authors' understanding of what can be learned from the US curriculum and how it can be tailored for the Indian and Philippines context.

In this article, the author wants to emphasize the significance of establishing particular values in pupils while they are learning language and literature. After examining, comparing, and contrasting both curricula, the author believes there is potential for development in character education in the language curriculum in India and in the Philippine countries. The language curriculum in the United States is constructed with the country's ideological standpoint in mind.

The Common Core State Standards are designed to generate college and career-ready students who will contribute to the development of the country. The standards may be useful in promoting economic opportunity by preparing students to be lucrative business resources. Business agents may gain because the CCSS and higher education work together to improve learning for the professional workforce.

Furthermore, higher education may benefit since the curriculum will transfer capable and prepared high school graduates to colleges. In other words, it makes it easier for colleges to adapt students' strengths and match them with entry-level courses (Jones and King, 2017). Students will be directly streamed in their skills and preferences by then, making the admission process easier for them.

However, the implementation of this language curriculum should prioritize marginalized populations. Those who lose may include disabled persons who require more assistance and are less proficient in employment training. If the US language curriculum prioritizes economic gain over moral training, the language curriculum is a type of moral instruction in the Mongolia, United Arab Emirates, Philippine and India setting. The instruction might aid in the advancement of character education. Some experts believe that moral and ethical traditions may be conveyed through literacy instruction (Skerrett, 2020). As a result, it helps some academics and educators, particularly those who teach language and literature lessons or learning areas, contribute to developing the nation's character (Inderawati, 2018).

Nonetheless, instructors in Mongolia, United Arab Emirates, Philippines and India continue to struggle to comprehend and follow the language curriculum because it is not explicitly stated in any guidelines. Teachers may be perplexed as to which characteristics should be taught and which are required in the classroom, or if they can use the students' mother-tongue or code-switching.

In comparison to the values and moral training provided in the American curriculum, they successfully embed the ideology in the majority of society, whether it is good or harmful. This is a really intriguing discovery that highlights the curriculum's substance and implementation. America does not have a specific religious and moral curriculum and does not place a strong emphasis on it, but ideology, moral values, and characteristics are interwoven and reinforced through the English language arts curriculum. This is possible because America has publicly declared its philosophy.

The educational design derived from the concept is then implemented. Even textbooks chosen and taught in the classroom have ideological principles, although the Philippines' understanding of ideology remains enigmatic and imprecise. Despite the fact that the Philippines', Mongolia, United Arab Emirates, and India have various circumstances, particularly in terms of culture and belief systems, we may still learn from the United States. That does not imply that we should accept its ideals and views.

On the other hand, the Philippines', Mongolia, United Arab Emirates, and India can benefit from the introduction of the language curriculum. America effectively instills character and moral education in its population in order to develop their worldview (thinking) and characteristics derived from its ideology.

Additionally, the author strongly advised educators and educational authorities to be more specific in determining which character should be highlighted in the curriculum. They should also decide what supporting measures would help them achieve their educational goals, such as choosing textbooks that teach more ideological beliefs rather than just grammatical rules. As a higher education teacher who is interested in character and language education, the author would like to conduct additional research on the Philippine language and literature textbooks because this has not been extensively covered in this paper and is an important factor in teaching character

education that can help foster the Philippines' worldview and personality regarding language curriculum.

Moreover, as the language curriculum has grown in popularity in many Asian nations, it has lately been adopted and taught as one of the key foreign languages as part of China's educational reforms in Autonomous Regions. As a result, trilingual education has emerged as a new phenomenon in language instruction in China's ethnic minority regions (Guo Tianxiang, Menggen qiqige, and Tang Suge, 2013, pp.48-50).

However, in most universities in Inner Mongolia, English is mostly taught by Chinese teachers in the learner's L2 Chinese rather than in their native Mongolian. Even some Mongolian teachers teach English to Mongolian learners mostly in Chinese but occasionally in Mongolian, neglecting the fact that for the vast majority of Mongolian English learners, their mother language skill exceeds that of their L2 Chinese and L3 English.

 One of the main reasons is that there are no adequate textbooks developed specifically for Mongolian English learners in Mongolian. Furthermore, while they were students, the Mongolian instructors were taught English by Chinese teachers using materials written in both Chinese and English. As a result, they become accustomed to thinking in Chinese, making it simpler for them to teach English in Chinese as the primary medium language. Even some Mongolian instructors who do not speak Chinese fluently are teaching Mongolian students English in both Chinese and English. Mongolian instructors can teach English in Mongolian since there is no legislation requiring them to teach English to Mongolian students learning English in Chinese in the Inner Mongolian Autonomous Region.

In summary, the findings of this article were obtained mainly through data collected through journal collection and case analysis with the use of different journals, previous articles, and thesis related to language curriculum. In addition, within the Arabic language curriculum policy community in the UAE.

In this section, the author reflects that the UAE language curriculum follows: 1) a structure for policy development; 2) a systematic model for the integration of interaction, learning, and evidence utilization in policymaking; 3) a model enhanced by individual capacities for learning: and 4) a model capable of supporting evidence utilization in policymaking. The language curriculum as a structure for policy development

The concept of language curriculum was defined through the literature review as an interaction structure for collaborative learning. In particular, a structure in policymaking that allows policymakers to engage with diverse participants in an attempt to exchange learning for policy improvement. When faced with challenging policy problems related to language curriculum, as argued by Rittel and Webber (1973), such as the challenge of addressing the Arabic language curriculum policymaking in the UAE, policymakers require collective problem-solving approaches.

In conclusion, with regard to the purpose of this article, language curriculum and its modes of interaction provided new insights to consider. The language curriculum in the five countries was involved in more than supporting or informing policy; it was involved in the actual process of creating, piloting, and implementing policy. As such, for learning - the central concept in language curriculum - frequency of interaction is argued to suggest its successful utilization (Huberman, 2010; Dentler, 2014; Peterson and Emrick, 2013).

Language curriculum as a structure for supporting policy development has multiple implications for policymakers, experts, and researchers. Policymaking institutions that are interested in promoting learning within their decision-making processes can purposefully initiate interaction structures by adopting the model of the language curriculum. This will require organizations to provide resources that support learning and interactions, such as time and access to learning opportunities. In the case of language curriculum development in the five countries where there is a shortage in curriculum, policy, and subject expertise, language curriculum as an interaction structure for policymaking offers a greater opportunity for supplementing current shortages of expertise in MOE by engaging external experts.

In the long run, these interactions with external experts can support enhancing the skills and knowledge of policy actors involved in the learning community. For the practitioners, subject experts, and researchers involved, the language curriculum as an interaction structure in policy development presents an opportunity to develop personal knowledge of policymaking in the five different countries.

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UTILIZATION OF ENGLISH VIDEO LESSONS AND THEIR SIGNIFICANCE TO THE PHILIPPINE LANGUAGE CURRICULUM: A LITERATURE REVIEW

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Article Info	Abstract
	Using the A- Analyze, D- Design, D- Produce, I- Implement, and E- Evaluate (ADDIE) instructional design approach, this study aims to develop and evaluate video clips as instructional materials in teaching English 7 learners. This research was done to establish which lessons should be included, as well as the content validity and acceptance of the created video clips. The researcher used the descriptive survey and developmental methods of study to create the video clips. The following were the critical measures that were taken: 1) planning, 2) video clip development, 3) validation/evaluation, and 4) result stage. Moreover, the researcher used two sets of questionnaires/checklists to gather pertinent data on the content validity of the developed video clips in terms of objectives, lesson, organization, language, and relevance; and the level of acceptability along with suitability, adequacy, and relevance. The suggestions were consolidated and integrated into the revision of the developed video clips in English 7.
Keywords	
development, video clips, validation, instructional material	Students and teachers in public schools should try out the generated video clips in English 7 as extra educational material, according to the researcher. It can also be used to remedy the lack of educational materials that cover the entire teaching and learning process. More changes to the created video clips should be made to accommodate learners' frustration levels. Finally, it is recommended that the school administrators should advise and encourage teachers to produce and come up with instructional materials in the different subject areas for additional learning materials. Also, an in-service seminar-workshop on instructional design in every subject area should be organized and conducted by education authorities in the division or in the region.

Introduction

English is a globally recognized language. Filipino students' English competence has been steadily deteriorating over time, as seen by their generally poor performance in national assessments of their English language proficiency. Learners have a hard time expressing

themselves in the classroom, especially when writing, which could be ascribed to professors' complete lack of interest in helping students develop their writing skills. Teachers who are looking for effective and innovative classroom activities to help learners develop their communication skills appear to be lacking in imagination and inventiveness.

The release of the 2018 Program for International Student Assessment (PISA) report, which indicated that high school students in the Philippines received poorer scores in reading comprehension, mathematics, and science than most of those assessed in other countries, enraged the country in December 2019. In reality, the country's overall reading score was a pitiful 340 points. China, in the first place, received 555 points. According to the statistics, almost 80% of Filipino pupils around the age of fifteen did not achieve the required level of reading proficiency.

Concerns noting on the factors and conditions of the surrounding learners' writing challenges have also become a prominent topic of research in English Language Teaching (ELT) with the help of technology, and the recommendations coming from these queues of research have likewise seen advancements in the progressive pursuit for solutions to the problem such as the formulation of more advanced teaching and learning strategies, as well as relevant instructional materials that are all in aid to alleviate students' difficulties in terms of writing skills.

With that, students generally encounter problems when expressing themselves through written compositions in ways that are systematic and logical (Msanjila, 2011). Moreover, the deficiency in students' written skills is also a factor they complain about when dealing with specific tasks assigned to them and which presupposes their competence in writing.

Moreover, in the K to 12 Curriculum, the instructional materials or references given to English language teachers of Grade 7 students are usually the Learner and Teacher's Manual. To supplement the latter, the concerned teachers sometimes look for inputs and other instructional materials that can be derived from the internet, but these are not always available, especially when a teacher does not personally possess IT equipment to be able to access the internet. Likewise, the soft copies of internet-drawn instructional materials cannot be used all the time, especially in schools wherein classrooms are not equipped with the appropriate audio-visual devices to present them as such to the students.

Trianto (2012) said that the primary purpose of learning is changing a learner's behavior as a result of dealing with an experience, and in such a context, video clips do enrich a student's experience. Using developed and validated video clips in their learning process is essential to guide students in understanding the material. This material also gives an enormous chance for the students to show up their ability and develop thinking processes such as looking for, guessing, and thinking logically.

It is then in the context of the above-stated challenges that the researcher found the motivation to develop video clips as an appropriate instructional material for Grade 7 students, which may function to be supplementary material for the use of other teachers and students in addition to their existing resources. Moreover, the researcher believes that this shall enable her to carefully analyze the nature of each of the competencies appropriate for the level of Grade 7 so that the developed video clips being the output of this study shall presuppose suitable lessons, tasks, and evaluation measures in accordance with the expectation that in the end will imbibe the competency in reasonably high levels.

Literature Review

Starting with the K-12 Curriculum, which was introduced in the school year 2012-2013, the Philippines has been undertaking a substantial makeover to bring it in line with education systems across the world. This shift in domestic education policy has far-reaching implications, which international educational institutions should consider while seeking new student recruitment markets.

The Language Arts and Multiliteracies Curriculum (LAMC) is based on the principles of language acquisition, learning, teaching, and assessment in the context of English education. LAMC's ultimate goal, as stated in the K to 12 English Curriculum Guide (2013), is to produce graduates who can use language conventions, principles, strategies, and skills in 1) interacting with others, 2) understanding and learning other content areas, and 3) fending for themselves in whatever field of endeavor they choose.

Because of the rapid growth of technology, video technology is becoming increasingly popular in education (McNulty and Lazarevic 2012:51). The usage of video clips in the language classroom is not just due to the availability of modern equipment, such as a computer or a DVD player. Another critical reason is that using video clips to teach has a lot of educational advantages. According to McNulty and Lazarevic (2012:49), the essential quality of using video-based activities is that they help overall learning motivation.

The following are the most critical potential learning outcomes, according to Berk (2010): video clips attract students' attention, focus students' concentration, generate interest in class, energize or relax students for learning exercises, improve attitudes toward learning, increase understanding, foster creativity, stimulate the flow of ideas, provide an opportunity for freedom of expression, serve as a vehicle for collaboration, inspire and motivate students, make learning more fun.

Teaching through video clips, on the other hand, allows teachers to improve students' cultural awareness and familiarize them with target cultures while also teaching the four core language skills (listening, speaking, reading, and writing) and expanding their vocabulary. The primary benefit is that video snippets provide teachers and students with what are known as "possible learning outcomes."

Further, Persky and Danne (2013) state three reasons to explain the common writing difficulties among children and young learners. Composing texts is a challenging endeavor for these students because it necessitates the deployment and coordination of many cognitive, linguistic, and physical activities in order to achieve goals related to genre conventions, audience needs, and the author's communicative goals.

Intercultural understanding is also promoted in the classroom using video clips as authentic materials. The foreign language instructor must remember that teaching a foreign language entails not just teaching vocabulary and grammar but also educating about the target cultures. Otherwise, the entire educational process may appear ineffective and fake. However, because teachers have limited time in the classroom and are constrained by the curriculum, cultural topics are frequently placed second in language instruction.

Although nowadays, with the advent of technology and the availability of computers and the internet, electronic materials are frequently preferred by students over printed materials. The

researcher advocates for the creation of video clips to aid learners in acquiring 21st-century skills in the English topic. Teachers are urged to create video clips so that publicly available ideas and exercises can assist them in overcoming their inability to build their program writing skills. Because there are no primary textbooks or suggested books for students to use, the researcher proposed creating video clips as teaching resources for Visual Basic NET. As a result, the students will have easy access to course materials.

Related Studies

Foreign Studies

Video clips can be used for a variety of other things. Video materials, for example, can help promote dialogue in the classroom. 'The great aspect of video films is their ability to offer whole conversational scenarios,' says Lonergan (2013). Indeed, video-based assignments can go beyond passive video viewing by forcing students to respond to and interact with the video content. Students could be asked to answer questions after watching video segments, for example.

Learning new words can also be aided by using video clips. 'When a person has images, actions, goals, and dialogue to attach to words, they have an embodied knowledge of those words,' according to Gee and Hayes (2011). As a result, films assist learners in seeing language "embodied" by supplying them with images, as well as the other elements identified by Gee and Hayes.

Danurwindo (2014) averred that Because English is an international language, it is one of the disciplines that students must master. The goal of language learning is for pupils to master the target language so that they can communicate effectively with others. However, the kids must first make mistakes, a method for analyzing the sorts of grammatical errors and identifying the types of grammatical faults that students in the second semester of IAIN Tulungagung frequently make in their speaking skills.

Moreover, Adib (2012) mentioned that because English is one of the international languages that may be used to communicate around the world, studying English is becoming increasingly vital. English is taught as a foreign language in Indonesia. Learning a new language can be challenging because the target language differs from the native language in terms of elements. These distinctions can cause pupils to make mistakes when utilizing it.

Harrison (2012) insists that the use of featured video clips in the classroom can foster cultural competence in a curriculum that envisions a shift toward cultural studies because featured video clips place language in context, give students an in-depth understanding of a country's culture and history, and eventually become the gateway to language and culture. Indeed, videos are rich in cultural content and cover a wide range of topics, including national diversity, national identity, national character, people's values, and lifestyle.

Likewise, according to Roell (2010:3), 'Not merely as the impresario of a given linguistic performance, but as the catalyst for an ever-widening critical cultural competence,' the language teacher will be defined in the future. Intercultural topics that demonstrate how people from many cultures communicate and interact are becoming increasingly popular in language classes.

Furthermore, according to Koksal (2014:63), one of the benefits of video clips is that they may be customized for use with both large and small groups. Indeed, creating more spoken work for small groups of students and more written tasks for larger groups of students may make it easier to prepare activities for video-viewing classrooms than for other types of lessons. Furthermore, according to Köksal (2014:64), video clips can be a rich source of grammatical structures and terminology, as well as a conversation starter. As a result, teachers can benefit from videos, provided they make use of the opportunities that videos bring.

Mills (2011:32) emphasizes the importance of critical literacy abilities in light of the contemporary abundance of media, print, and online sources. She believes that youngsters who are engaged by movies and television shows require conceptual tools to comprehend, select, question, and evaluate text messages. Teaching with videos can help students build critical literacy skills by requiring them to assess, evaluate, and question the materials they have been exposed to.

Even if there are disadvantages to teaching via video, they are likely to be exceeded by the advantages. However, the most significant disadvantage of teaching through video is that it is time-consuming. First, the teacher must preview and select actual video clips that are appropriate for classroom use in terms of language and context. Teachers must therefore devote additional time to planning activities for students. Second, video clips consume a lot of class time, especially if they are feature films.

Another negative is the danger of making classes more enjoyable than instructional, which could result in meaningless viewing with no aim and hence no educational outcome.

"Teachers occasionally utilize the video as a relaxation or a non-teaching break," says Vetrie (2014:40). The worst application of all is using a feature film as an amusing reward between the end of a teaching unit and a vacation, which is both immoral and illegal."

The study of Abregana 2012 was descriptive in nature as it identified and described what is and what existed in the present situation of the proposed video clips.

Buchan's study, "Development and Validation of Modules in English 2: Writing in the Discipline," found that the materials, activities, exercises, and strategies employed in the module were diversified, allowing students to work autonomously and creatively. Overall, the pool of experts, teachers, and students determined that the modules were appropriate for the student's levels and needs.

To summarize, technology is an essential aspect of the academic world and, when used appropriately, can help students learn languages more successfully. Every language instructor needs to be able to incorporate video technology into their classroom routine and language learning activities. The educational power of video should not be underestimated. On the other side, it is critical to avoid overusing or misusing video snippets in the classroom.

Local Studies

Developed video clips can suffice the needs of the students as the illustrations and diagrams, as well as the words used, are within the understanding of the learners. Moreover, the choice of suitable topics is essential to the pursuit of developing the performance of the students as the objectives and exercises are aligned with each other. Victor (2013) also stated that the chief

purpose of instructional material (IM) is to implement ideas in the minds of students and help them understand specific concepts.

With regard to graduates, Macasinag (2011) mentioned that many people say that high school graduates from decades ago had a more excellent command of the English language than college graduates nowadays. This degeneration manifests itself in a variety of ways, including incorrect grammar, a lack of linguistic fluency, poor reading comprehension skills, and poor writing skills. Filipinos are clearly losing their competitive advantage in terms of English skills. Our claim to being the world's third-largest speaking country does not match our position. We now hear anecdotal stories of contact centers admitting only a small percentage of individuals who apply because only three out of every 100 applicants are English skilled. University teachers bemoan college students' incapacity to comprehend and communicate in English.

Likewise, Salazar, Jr. (2017) wrote that teachers, parents, and students have begun to repair and beautify school buildings, classrooms, and grounds as the education system prepares for the start of classes in June. Among these initiatives, we hope that our educators will intend to redouble their efforts to improve English instruction using technology so that Filipinos can stay up with the global competition. The dismal situation of English proficiency is also evidenced by surveys from the Social Weather stations.

Mabuan (2015) Weblogs were used to study grammatical problems in a corpus of 58 blog entries generated by 58 individuals. Its goals were to find out what students thought about using blogs to help them learn English writing abilities, to discover, categorize, and analyze grammatical problems in students' blog entries, and to find out what students thought about blogging as an alternative to writing platform.

In addition, Rodriguez's (2012) study aimed to establish the acceptable level of the topics included in the modules based on their components which were evaluated by experts. The topics included in the modules were determined after the analysis of the course outline prepared and used by Information Communications Technology teachers handling multi-media production offered by different institutions of higher learning in the Province of Pangasinan.

The betterment of using modified learning materials was shown in Cruz's (2011) research. He found out that students exposed to the developed learning materials in Drawing 2 performed better than the students taught without the use of the developed learning materials. The developed learning materials in Drawing 2 as instructional materials are highly acceptable in teaching the subject.

Thus, Cortez (2013) proposed English I Instructional Materials for Students, and the development and validation of the worktext process followed the four steps which are: a) the planning stage, b) the development stage, c) the evaluation stage, and d) final revision of the developed worktext. Results of the validation in terms of the level of validity of the developed worktext obtained an overall mean of 4.20 with a descriptive rating of very highly valid.

Conclusion and Implication

The following conclusions were formed based on the significant findings:

The least mastered competencies of Grade 7 in their English subject, which inspired the selection of the lessons in the developed video clips, were identified to be grammar, vocabulary, reading comprehension, and literature.

The developed video clips in English 7 were Very Highly Valid in terms of content validity which was further measured through a careful analysis along with the video clips' objectives, lesson, organization, language, and relevance.

The developed video clips in English 7 were Very Highly Acceptable in terms of Level of Acceptability which was further measured through a careful analysis of the video clips' suitability, adequacy, and relevance.

Recommendations

In consonance with the findings and conclusions, the following recommendations are endorsed:

In view of the findings on the least mastered competencies of the students, the concerned teachers of the subject are advised to strengthen and enhance their instructional design for the subject in order to raise the level of their students' grasp of the concerning competencies. Considering that the developed video clips in English 7 generated by this study were custom-fit to the analyzed specific needs of the students in view of their pre-surveyed grasp of competencies, the developed video clips are recommended for use by the concerned teachers to complement their respective instructional designs for the subject.

On the findings that the developed video clips generated by this study were found to be meritorious in both content validity and level of acceptability, the developed video clips are highly recommended for their actual use for classroom use in order to test their actual effect on students in the context of raising their grasp of the concerning competencies. The prototype of this study may be adopted for future parallel research anchored in developing other instructional materials intended for other grade levels.

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English Language Needs Analysis: Its Importance and Contribution to the Philippine Language Curriculum

Christine N. Ferrer & Maribeth T. Sagun

Abstract

Through a review of related literature, this study aims to determine the role of Needs Analysis in the current English Language Curriculum in the Philippines. English is used as a medium of instruction in a variety of educational settings, including the Department of Education. The literature in this paper that shows the results of various studies allows faculty and school administrators to reexamine and reflect on their curriculum development efforts toward meeting the needs by establishing a solid review of literature as a foundation for action and informed decisions. Furthermore, to make recommendations that will help improve the curriculum in order to ensure that all learners who will be a part of this program receive an excellent education.

Keywords: *needs analysis, language curriculum, curriculum design*

Introduction

Needs analysis is frequently used to guide educators and practitioners in developing effective courses. Needs analysis (NA) is an effective method for identifying and validating actual needs (Aykel & Ozek, 2010). It enables educators and practitioners to create curriculum by basing language course content on communication needs, goals, and interests of the learners (Lepetit & Cichocki) (2012). It connects learning to teaching as closely as possible (Grier, 2015), and it encourages educators and practitioners to provide better and more accessible resources for program students (Long, 2005). The foundation of the language's various applications for specific goals are needs analysis. The purpose of determining how English grammar is developed in the language classroom, whether through reading or writing, is to ass ess the needs of the students. When designing a curriculum, goals, materials, resources, learning activities, and evaluation as the foundation for building the curriculum should all be taken account.

Nation and Macalister (2010) proposed twenty design principles for language curriculum. They classified these principles into three categories: 1) content and sequencing, 2) format and presentation, and 3) monitoring and assessment. The first group of content and sequencing principles includes frequency, methods, and autonomy, spaced retrieval, language system, keep moving forward, teachability, learning burden, and interference. These guidelines are intended to ensure that students gain something useful from the course. The second set of guidelines is about format and presentation. This category includes motivation, four strands, intelligible input, fluency, output, purposeful learning, time on the task, depth of processing, integrative motivation, and learning style. In general, these concepts are concerned with what happens in the classroom and during the learning process. They are most directly related to course activities and how the students process the course material. In this aspect of curriculum design, teachers may have the most influence on the course. Monitoring and evaluation are the third set of principles, which include ongoing needs and environment analysis as well as feedback. Nation and Macalister (2010) state in terms of ongoing needs and environmental analysis that the selection, ordering, presentation, and assessment of material in a language course should be based on a continuing careful consideration of the learners and their needs, the teaching conditions, and the time and resources available. This principle, according to Nation and

Macalister (2010), emphasizes the importance of conducting needs analysis during course planning.

The Philippines, like other countries around the world, seeks to produce high-quality individuals through education. To accomplish this, the government established educational goals to be met through the lens of education authorities (Department of Education, and the Commission on Higher Education). As a means of accomplishing this, the curriculum is fully utilized. It should be meticulously organized and structured into specific programs, with curriculum development playing a key role in determining what should be included in educational programs. The primary goal of curriculum design is to develop an overall course blueprint, which includes creating a course outline and building the course, as well as mapping content to learning objectives. The curriculum is adequately prepared and up to date to improve educational quality. To create a well-developed curriculum, the government must first understand the current state of education in the Philippines. As a result, conducting needs analysis is one method for determining the true state of the schools.

A language-based curriculum provides topic information that is well-planned and strategically presented to aid learning and enrich students' language experiences across all subject areas. Language learning is incorporated into all areas of the curriculum, including the arts, physical education, and language arts sessions. Teachers carefully assess curriculum requirements as well as class language demands, bringing content and language together. Teachers evaluate the content and reading resources to be used, as well as the critical speaking, listening, reading comprehension, and writing skills required by each lesson.

As a result, the goal of this study is to review some related pieces of literature aligned with Needs Analysis in curriculum design, and to provide related references that may be of great assistance to other future researchers who will conduct studies related to this.

Literature Review

2.1. *The Importance of Needs Analysis in Curriculum Design*

Needs analysis, also known as needs assessment, is now widely accepted as a necessary component of second language curriculum development and review. Determining the needs of the students at a specific institution is considered a great way to inform curriculum developers of the potential goals and objectives required to create the curriculum. The growing interest in students' needs in the field of English as a Second Language (ESL) has primarily focused on what types of linguistic output the students will require, which is known as an ends-means approach to curriculum design (Pushpanathan and Ramani, 2015).

The goals and content of course are the primary focus of needs analysis. It looks at what the students already know and what they need to know. The need analysis ensures that the course contains relevant and useful information to learn. Good needs analysis entails asking the right questions and finding the right answers in the most efficient way possible (Nation and Macalister, 2010).

It enables educators and practitioners to shape curriculum development by tailoring the language course content to learners' communication needs, desires, and interests (Lepetit & Cichoki, 2012).

According to Lampad (2013), the purpose of language needs analysis is to analyze the current speaking proficiency of this institution's high school teachers through the use of English as a

medium of instruction. This analysis will be based on the following criteria: a.) Self-assessed speaking proficiency; b.) Observed speaking proficiency; c.) Medium of instruction used; and, d.) Speaking pieces of training attended.

Analysis of needs take into account data that is both objective and subjective. An examination of the published research on the subject of academic language needs analysis reveals that these requirements are quite varied, which suggests that the challenges are connected to both productive and receptive macro-language skills (Generoso and Arbon, 2020).

2.2 Conducting Language Needs Analysis

According to Munby, Hutchinson, and Waters (2018), there are common questions that are typically asked during a target needs analysis. Because a needs' analysis must result in decisions about what will be learned during the duration of course, they have been arranged under the heading of four different learning goals. It should be noted that the questions do not always neatly correspond with the objectives and the different types of information. For example, the answer to a question like "Where will the language be used?" can produce data that has an effect not only on language goals but also on content goals, skill goals, discourse or text goals, and so on

.

Table 3.2 Questions for focusing on needs

Goals	Questions	Types of information in the answers
Language	What will the course be used for? How proficient does the user have to be? What communicative activities will the learner take part in? Where will the language be used?	sounds vocabulary grammatical structures functions set phrases and set sentences tasks
Ideas	What content matter will the learner be working with?	topics themes texts
Skills	How will the learner use the language? Under what conditions will the language be used? Who will the learners use the language with?	listening speaking reading writing degree of accuracy degree of fluency
Text	What will the language be used to do? What language uses is the learner already familiar with?	genres and discourse types sociolinguistic skills

The results of the needs' analysis need to be incorporated into the curriculum development. It is pointless to collect data through needs analysis if there is no use for the information that can be found. As a consequence of this, it is advisable to get started with a pilot study in order to eliminate this possibility (Nation and Macalister, 2010).

1.The pyramid method can be implemented at any point during training to carry out ongoing needs assessments (Jordan, 2010). In other words, the students might be provided with a list of items that serves as a description of their wants and needs. They select and rank these items, one at a time, then in groups of two or four, and finally as a collective unit. When they report their ranking to the instructor, they include the points for which they individually ranked highly but for which they were unable to gain support from their group. The instructor will find that this is helpful when it comes to planning a class schedule as well as organizing work for individuals or small groups (Nation and Macalister, 2010).

On the other hand, Alqunayeer and Zamir (2016) mentioned in their research the model "A Learning-Centered Approach" developed by Hutchinson and Waters. This method, as its name suggests, places the emphasis on the requirements of the students who are enrolled in the course. The needs of the learners can be broken down into two categories: the needs of the target and the needs of the learning. Target needs include necessities, desires, and deficiencies. On the other hand, learning needs are comprised of a person's social and educational background, as well as their preferred teaching and learning style and their attitude toward learning.
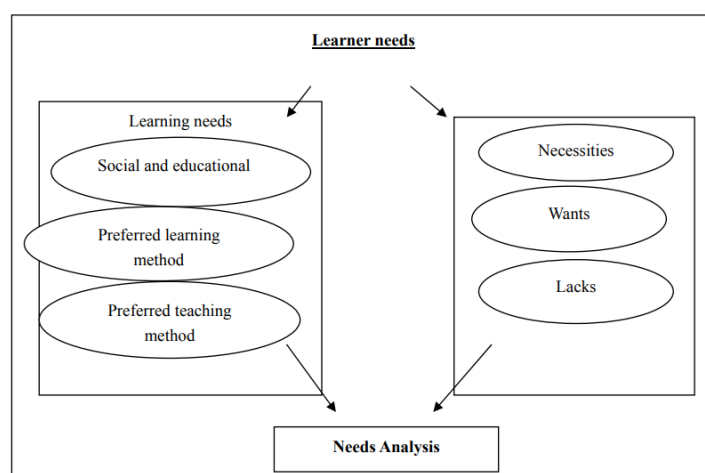

Figure 1. Theoretical Framework of Hutchison and Waters (1987)

According to Hutchinson and Waters (2016), other methods place an excessive amount of emphasis on the requirements of the target language, when a greater amount of emphasis should be placed on the manner in which learners acquire knowledge. They argue that the best way to get students from where they currently are to where they ultimately want to be is to take a needs-based approach to learn. It focuses on two areas, namely, learning needs and target needs, in order to provide a comprehensive approach to the requirements of learners.

2.3 The Philippine Educational System's Language Curriculum

The principles of language acquisition, learning, teaching, and assessment that are outlined below serve as the basis for the Language Arts and Multiliteracies Curriculum that is implemented in grades K-12. There is a close relationship between and dependence on each of the world's languages. The ability to communicate in one's first language (L1) is a critical factor in the development of one's capacity to learn additional languages (L2). The acquisition of specific skill sets and implicit metalinguistic knowledge in one language (referred to as common underlying proficiency, or CUP) serves as the foundation for the development of both the first (L1) and second (L2) languages2. As a consequence of this, any expansion of the CUP in either language will cause the other language to benefit positively from the expansion (s). This principle explains why it is becoming increasingly simple to acquire new vocabularies (DepEd K to 12 English Curriculum Guide, 2016).

The process of acquiring a language and learning new words is one that lasts a person's entire life; it begins when they are born and never ends. It is something that occurs repeatedly and continuously throughout the lives of students. Students strengthen their command of the English language by applying what they have learned in a variety of different contexts, each of which is progressively more difficult (spiral progression). They consider their prior knowledge and put it to use in order to extend and improve both their language and their comprehension.

Students improve their fluency and proficiency in a language when they learn new language structures, add those structures to their existing repertoire, and use those structures in a variety of different situations. Students are inspired to want to continue expanding their knowledge, skills, and interests after they leave school when they have positive learning experiences in environments that are rich in the language (DepEd K to 12 English Curriculum Guide, 2016).

According to the DepEd K to 12 Curriculum in English, the ultimate objective of the Language Arts and Multiliteracies Curriculum is to produce graduates who can apply language conventions, principles, strategies, and skills in the following areas: (1) interacting with others; (2) understanding and learning other content areas; and (3) fending for themselves in whatever field of endeavor they may choose to engage in.

2.3.1 Needs of the Learners: The Context

The term "Generation Z" refers to people who were born between the years 1994 and 2004, and this group is the first to be raised with all available forms of technology. They were the first generation to be born with personal computers, mobile phones, gaming devices, MP3 players, and internet access. They have no concept of what life was like before the invention of technology. As a consequence of this, people often refer to them as "digital natives," and they are very at ease when using various forms of technology. Using e-mail, texting, or computer is not challenging for them in any way. In addition, members of Generation Z are capable of understanding and effectively utilizing new technological developments. Unfortunately, as a result of their over-reliance on technological devices and equipment, the members have suffered negative consequences. They would rather play inside with their electronic devices than go outside and engage in physical activity. They lead a sedentary lifestyle, which increases their risk of developing health issues in later life.

They can communicate with the outside world by using social media platforms as a means of communication. They have no regard for one's right to privacy and are open to disclosing private information about themselves to people they do not know. They have a network of online friends, and socializing with them entails maintaining contact with one another through electronic means such as cell phones, emails, and text messages. On the other hand, members of this generation are believed to be inventive and cooperative, and it is anticipated that when they enter the workforce, they will have a significant impact on the way in which businesses function. Members of Generation Z are experts at juggling multiple tasks at once. They are able to text messages, read, watch television, converse, and even eat at the same time. However, as a consequence of this, people's attention spans have become shorter, a phenomenon that psychologists refer to as acquired attention deficit disorder (ADHD).

Conclusion and Implication

By conducting a review of the relevant literature, the purpose of this study is to determine whether or not a Needs Analysis is included in the Language Curriculum that is currently being taught in the Philippines. In a wide variety of educational institutions, including the United States Department of Education, students receive their education primarily through the medium of English.

Conducting needs analysis as part of the overall curriculum development process aids the process of designing language classes. It is absolutely necessary to acquire a deeper comprehension of the teaching strategy, strategies, or method in order to better assist students in the process of language acquisition.

When developing a course of study, it is imperative that needs assessment be conducted first and foremost. The requirements of each and every learner require adequate consideration. If this is not going to be taken into consideration, then the course may not be appropriate for the circumstances and learners for whom it is used, and it may not be an effective or efficient means of encouraging learning.

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Utilization and Misconceptions of Eclectic Approach in English Language Teaching: A Literature Review

Christine N. Ferrer and Jan Markayne S. Bernal

Abstract

Teaching a language has always been difficult for some English teachers in the Philippines, even though there are various methods available. They eventually become confused about which method works best for a lesson because they are only concerned with successful learning for everyone and not with the most effective way of teaching and learning.

There may also be a question about what approach they can take to develop effective teaching, particularly in the English language, because misconceptions emerge in situations where teachers are only focused on the generic way of teaching. Even though the eclectic approach has been proven effective and widely used, there are classroom situations where teachers using the approach are still struggling to teach the subject matter. This has something to do with the four macro skills in English. One reason for this is a lack of the main concept, which is always used incorrectly. These difficulties and issues in teaching English have a significant impact on the students' learning interests. As a result, some students may find the subject the most difficult, and the worst-case scenario is that they simply stop learning the language. So it is with the other subjects that use English as a medium of instruction because they cannot understand the language itself.

Thus, the goal of this research is to address the issue of using an eclectic approach and dispel misconceptions about effective English language teaching. This article will also serve as a resource for future related studies.

Keywords: Eclecticism, Language Teaching, Misconceptions

Introduction

The continued search for effective language teaching methods is giving new hope to teachers who are still in the process of looking for the best method they can use in their classes. The idea that new methods are interesting and engaging is something that would let students invest their interest in learning. As to the knowledge of those concerned, teaching a language is never an easy task to establish an effective classroom discussion and secure the learning of the language itself. Learning English is essential to everyone as it will bring success to every aspect of a learner's life inside and outside the classroom. At some point, it is really interesting to learn, but because teachers are having a big confusion about the abortion of the methods, particularly the most effective method, the Eclectic Approach, the interest decreases, resulting in the concept of the method never being attained.

Traditional language teaching is less effective than an eclectic approach to English language teaching. It is with a concept that does not rely on a single method or set of paradigms, but rather on a combination of various teaching styles, methods, ideas, theories, or approaches into a more

balanced and secure learning approach. The combination of these methods (Grammar Translation Method, Direct Method, Audiolingualism, Cognitive Code Approach, Situational Method, and Communicative Language Teaching Approach, to name a few) creates an effective way for all students to grasp the lesson and achieve their objectives. As a result, the skills should be easily attainable by the end of the lesson. When all of those skills are used, language teaching becomes effective. Although there is no perfect method for teaching a language, doing what is best for the students to learn the language can help to effectively teach and understand the subject matter.

Eclecticism is a component of effective language teaching methods and techniques used by teachers; it serves the purpose of supporting students' learning needs by enhancing their macro skills. According to Gao (2011), the eclectic approach is a combination of the students' listening, speaking, reading, and writing skills that can be developed within the classroom. They are inextricably linked (Ellis, 2002, 223-232). However, with those various methods in English Language Teaching, teachers are becoming unaware of the true concept of the eclectic approach because they tend to use it in other ways that obscure the main idea.

To better understand the concept of eclecticism, various principles emerge (Ali 1981:7). Giving teachers the freedom to choose what they think is best for them to use in class to achieve their goals and objectives is one of those principles. It also provides a variety of teaching aids that may pique the learners' interest. And, with the use of social media and technology amid the pandemic, teachers would be able to easily solve any problems that may arise in the presentation of textbooks or online materials. Given the variety of methods and techniques available for teaching languages, an eclectic approach will suffice.

According to the Philippine DepEd order, three dominant English language teaching (ELT) practices are Communicative Language Teaching (CLT), English for Specific Purposes (ESP), and Task-based Language Teaching (TBLT). The number of memoranda and circulars, as well as the training program, vary between these well-known and widely used approaches. CLT was discovered to be the focus of the majority of teacher training. Interventions, measures, practices, and evaluations are all part of it. The training is part of the Department of Education's National English Proficiency Program.

There is no exact or best way to teach the language because these methods have both positive and negative effects on teachers and students. The philosophical viewpoint of the study has been studied based on the elements of the language curriculum and teaching: needs analysis, goals and objectives, testing, materials, teaching, and program evaluation, in which the researchers believe that understanding the elements of the language curriculum to easily identify the goals and challenges towards achieving effectiveness in terms of teaching and learning is part of teaching the language.

As a result, the researcher concluded that the use and misconceptions of eclecticism in English Language Teaching have a significant impact on student learning and, more importantly, on English Language Teachers' teaching methods.

Literature Review

2.1 *Eclecticism Approach definition*

Kumar (2013) defined eclectic methods as a combination of different methods or techniques in teaching that rely on the effective delivery of the lesson and the learning that needs to be attainable to assess the learning of the students. He examined the principles of eclecticism as an approach suitable for classroom discussion, measuring cohesiveness, and providing numerous options for teaching a language. His definition implies that when teaching, a teacher should always have a backup plan and not settle for the only option, which could be giving negative feedback after a lesson.

The Oxford Languages defines eclecticism as "the practice of obtaining ideas, style, or taste from a wide and diverse range of sources." The theories or methods of the ancient Eclectic philosophers, who did not belong to or found any recognized school of thought but selected doctrines from various schools of thought. To maintain an interactive classroom discussion and conversation, the engagement should be increased as much as possible.

According to Larsen-Freeman (2004), methods vary and must be accompanied by a variety of sets of methods that vary according to the teaching needs and learning outcomes of the students. The eclectic approach to language teaching is evolving into a system based on two or more principles. It does not limit the methods that can be used because this approach will balance the entire concept of eclecticism. It contains a part of a whole that does not fall into a generic way of teaching language but rather combines all the parts of a whole. This approach is systematic, which means it can be combined and used to meet the students' diverse, distinct, and diverse needs.

However, Kumaravadivelu (2006) warns against relying too heavily on the methods in their specifications because she believes they do not address the issue of language teaching and how a teacher can teach a language based on the context. Her primary solution is a post-method approach to language teaching. It will discuss the pedagogical scope of specificity, practicability, and possibility, as well as the post-method teacher and learner indicators. And she was convinced that to be more effective than language teaching, she should consider a context-sensitive pedagogical framework that can address teaching and learning issues while also opening up future opportunities.

According to Wali (2009), an eclectic approach is prevalent in today's era. The method is said to be so popular that teachers all over the world use it. And this varies according to the level of the students' skills and intelligence. Students are identified as being individually distinct in terms of how the approach can solve the problem or concern about what students will learn. Weidemann (2001:2) stated that this approach is widely accepted because it has already reached the entire world. As evidence, teachers are making an effort to teach their target goals, and positive feedback for learning has a significant impact on the combination of methods used in eclecticism.

2.2 *Utilization of Eclectic Approach*

Language is an integrated and interconnected whole, and English teaching and learning necessitates a holistic, pluralistic, and all-encompassing approach. Given that those methods are

extremely beneficial for effectively teaching the English language, there is little doubt about which method to employ. For some reason, teachers are unable to grasp the concept and ideas behind the eclectic approach. Connecting the ideas of all these different methods to figure out how they would work in terms of eclecticism may appear to be a lot of work. However, it is precise because of this that eclecticism is so appealing.

Ali (1981:7) developed a list of eclecticism principles that discuss the use of the eclectic approach to provide additional knowledge to teachers, as every teacher must grasp the concept, because if someone does not know how it may result in misconceptions or failure to understand what is supposed to be understood. The principles that follow are useful because they have been simplified.

First is that teachers were allowed to choose from a variety of teaching techniques to help students understand the lesson's objectives at each class session. Teachers are also free to use any techniques they deem appropriate and relevant to the lesson prior to teaching. Students, on the other hand, can observe various teaching methods by reacting to how the teachers interact with the lesson. Lessons with teaching aids can spark lively classroom debate. However, Troubleshooting issues may arise during the textbook presentation. Finally, it saves time and effort when presenting language activities.

This eclectic approach, according to Larsen-Freeman (2000), is decontextualized, which means that the context is isolated. The use of these methods will have an impact on not only the teacher but also the students who are learning. So, what instructions are taking place with the teacher's expectations of the class, the rightful social roles, the constraints of the school, and demands and factors that connect to the socio-cultural context in a broader sense?

According to Weidemann (2001), the inclusion of other related teaching aids can enhance students' interest in learning the English language. A teacher, on the other hand, should invest time, a lot of time, in collecting and creating appealing learning aids to level up their teaching and maintain a positive attitude while encouraging students through how the information is delivered. Perhaps the use of items in the classroom is so helpful in relating anything to the topic because it creates relevant visuals. Language is communication, which means that students can learn through visuals that serve as a channel of communication.

Making mistakes, whether intentional or unintentional, is part of the teaching process, according to Krashen (1982:117). The correction of an error is an example of a method. It may make it easier for the teacher to explain the situation and for the students to learn from it. As the concept of eclecticism coordinates with a combination of different methods to stand alongside the teaching process, there will be no best or exact method to be used to say that a teacher is teaching effectively.

Talidong (2020) concluded in her research that advanced teaching methods are appropriate for any learner because they contribute to effective language teaching. It was proposed that learning the concept and combining ELT methods would result in interestingly and effectively imparting knowledge in an English class.

2.2.1 *Teaching Techniques on English Language Teaching*

English Language Teaching can be as interesting as we can ever think of if it has a blend of trends. According to Mehmmod (2012), if a class discussion was equipped with different styles of

teaching, like connecting the ambiance to a more engaging spot, there would be interaction, and the students would be comfortable enough to learn, motivated, and believe that their academic interests would be established.

Methods of Language Instruction includes the Grammar Translation Method. This was the first method that was formalized and dominated language teaching from 1840 to 1880. According to Richards and Rodgers (2001), GTM entails studying language through a deep analysis of grammatical rules and then translating sentences into or out of the target language.

Another is "Direct Method" This is a monolingual approach. Through demonstration and visual aids, this conveys the meaning or facts about the target language. Multilingualism allows students to speak in the target language, and sharing is a good example of how to use the method.

The Situational Method. The method included systematic principles of selection (the procedures for selecting lexical and grammatical content), gradation (principles for organizing and sequencing content), and presentation (techniques used for presentation and practice of items on a course). Richards and Rodgers (2001: 38).

Next is Cognitive Code which was a reaction to the shortcomings of the audio-lingual method. According to Skehan (1998:30), the Cognitive Code approach allows for greater creativity in what is stated. Because it is assumed that a rule-based system is in operation, there are no constraints on creating new meaning combinations.

Finally, the Communicative Language Teaching Approach (CLT) refers to both the processes and goals of classroom learning, as well as the fact that communicative competence includes abilities in expression, interpretation, and negotiation of meaning (Savignon 2002).

2.2.2 *Effectiveness of the Utilization of Eclectic Approach in English Language Teaching*

As part of getting to know the effectiveness of the utilization of eclecticism in teaching the English language, different studies conducted in different countries were used.

From the gathered related studies about effective utilization of eclecticism, four of the five studies conducted by various universities and countries have a positive response to the effectiveness of using the eclectic method, while the remaining one is not significantly effective based on the concept of eclecticism.

The first study, "The Eclectic Approach in Teaching English for Communication," by Fariha Asif and Intakhab Alam Khan of King Abdulaziz University in Jeddah, Saudi Arabia, concluded that the eclectic method is significantly effective in teaching communicative functions and ions, particularly through the use of activities for social interaction that focus on real-life scenarios. It was also demonstrated that English teachers favorably agree with the use of the eclectic approach. As a result, the teachers who responded strongly recommend that all schools use an eclectic approach, particularly when teaching English.

The second study was conducted by Suparman Sekolah Tinggi, Ilmu Tarbiyah, Palapa Nusantara, Lombok Nusa, and Tenggara Barat as authors of the study "The Effectiveness of the Eclectic Method in Teaching Writing English of Recount Text for the Eighth-Grade Students of SMPN 1 KERUAK" from Indonesia, and it was implied that the eclectic method was significantly effective in teaching the English language inside a writing class and should It has been stated that this method assists students in improving one of the macro skills in English, which is creative writing. The eclectic method allows students to reflect on their writing development, opportunities, and strengths to track their learning progress.

The third study, "The Use of the Eclectic Method in an English Language Classroom for Learning Specific Skills," by Julia R. Sevy Biloon, Universidad Nacional de Educación (UNAE), Azogues, Ecuador, demonstrated that the eclectic approach to teaching is very useful. It is said that the eclectic method can be changed and morphed to meet the needs of the teacher and students. The study shows that using different methods, models, and techniques allows the teacher to teach large class sizes in fewer hours while covering the four skills and personalizing the lessons to the students' needs.

N. Sagar and Thahiya Afzal from India wrote the fourth significant study on the effectiveness of using the eclectic approach, titled "The English Language Teaching through the Eclectic Approach for Engineering Students." One of the subjects of the study was engineering students. It is clearly stated that the teacher's involvement and knowledge of the method can have a greater impact on positive learning outcomes. It has been observed that learning is possible if the teacher does not use a single method.

However, Dr. David Sani Mwanza's study, The Eclectic Approach to Language Teaching: Its Conceptualisation and Misconceptions, from the University of Zambia, Africa, has resulted in not being able to sign on to the effectiveness of the use of the Eclectic method due to teachers' misconceptions about using the method based on the concepts. The teachers believe that the eclectic approach is ineffective because students must first be fluent before they can fully comprehend the method used by their teachers. There is a need to address the issue because it is a genuine misunderstanding.

2.3 *Sample study result about Misconceptions of Eclectic Approach*

Some teachers, however, continue to have misconceptions about using an eclectic approach. They are sometimes particular with the method, but the concept is not understood. There are three major misconceptions about eclecticism, according to Dr. Mwanza's (2017) study, "The Eclectic Approach to Language Teaching: Its Conceptualization and Misconceptions."

First is that the method was time-consuming and thus difficult or impossible to use. The final misconception concerns how teachers perceive the use of various methods, as it requires a significant amount of their time to implement the approach. From this vantage point, it is clear that the teachers who thought it would take too much time have no idea how eclecticism works. It is never so time-consuming that it takes away from their ability to teach. It saves time because the idea of combining the methods into one approach implies that they are using the methods correctly. In terms of using the approach, teachers may overcome that thought and improve their teaching skills to provide meaningful classroom discussion.

Also, the teacher interpreted the eclectic approach as the use of several methods within the lesson, one after the other. His first two respondents appear to have the concept of eclecticism; however, the main concept of how it is used is lacking in the system. The concept that gives substance to proper utilization should be fully realized because that will measure if the teaching creates a space for learning as students will be interested. This misunderstanding demonstrates that the various methods to be used are said to be used one at a time as if it needs to prove that the first option didn't work, so there is a need to jump into the next method.

This approach will only work if students are fluent in the language. The following misconception considers the situation in which a student must first be fluent in the language before engaging in eclecticism. The respondents forget that they are to teach the English language, so they should not expect most of the students to be proficient in the language, as the main goal of language teaching is to teach the language itself regardless of the students' status or level of competency in writing, reading, speaking, or listening. This demonstrates that utilization will not be realized because it is based on the incorrect perspective.

Conclusion and Implication

Through the use of an eclectic approach, this paper attempted to introduce the concept of effective utilization of various English Language Teaching methods while also addressing the misconceptions that teachers have about delivering effective lessons. As Eclecticism is an effective approach that a teacher can use to teach a language, the author hopes that this study will add more substance to future studies. This approach does not restrict the use of methods, but the more a teacher employs its various strategies, the more a teacher opens the door to aligned teaching and learning. Those who are unfamiliar with the method may find it difficult to establish a learning environment because it is effective in teaching.

This study included the principles and methods of English Language Teaching because the authors believe that if a teacher understands how the methods work in a specific approach, any concern that may affect the teaching and learning process can be avoided. To assist teachers and as a reference for future related studies, all possible and relevant literature to support the details of the study is included.

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STUDENTS WITH SPECIAL NEEDS IN A STATE UNIVERSITY IN THE PHILIPPINES

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Abstract

This study focuses on profiling university students with disabilities, indigenous students, and single parents. The descriptive research design was utilized to describe the students with special needs in terms of their grade level, degree program, age and gender, scholarships, grants and loans, other benefits availed of and problems encountered, and needs. The tribe and language spoken by the indigenous students, the prevalence of the student's disabilities, and the source of income and number of dependents of solo parents were also described. Using the aforementioned descriptions, this study determined the significant profiles of indigenous students, single-parent students, and students with disabilities. It has been noted that indigenous students' dialects and proximity were some factors in choosing the higher education institution they enrolled in. Regarding the students with disabilities, 2 out of every 1000 college students have either a psychosocial disability, an orthopedic disability, or a hearing impairment. Meanwhile, the solo parents are pursuing their tertiary education despite being separated from their partners or spouses with the aid of their family members. Moreover, the higher education institution and the government lack financial support solely intended for students with special needs while pursuing their respective degrees. It is hereby recommended that the program chairperson assign lecture rooms and laboratories for students with orthopedic disabilities on the first floor. Further, to proactively determine the students with special needs and elicit empirical data, admission forms, enrollment forms, cumulative record forms, and other necessary documents may be revised and used.

Keywords: *indigenous students, solo parents, students with disability*

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1.0 Introduction

The World Conference on Education for All, an international conference focused solely on education, took place in 1990 in Jomtien, Thailand. The Global Declaration on Education for All was adopted as a result of the Conference, which was organized by UNESCO, the World Bank, UNICEF, and the United Nations Development Programme (UNDP) (the Jomtien Declaration). Following this meeting, governments of industrialized countries and international organizations started concentrating on supporting education for all (EFA) as a goal that should be shared by all countries. EFA then gained international traction as a slogan for educational cooperation. Such a concentration had a significant impact on low-income countries' educational policies (Kuroda, 2016). The Millennium Development Goals (MDGs), which launched a global initiative to combat poverty in 2000, came after the EFA. In addition to other development targets, the MDGs established quantifiable, broadly accepted goals for combating extreme poverty and hunger, eliminating fatal diseases, and providing universal primary education. The Sustainable Development Goals (SDGs), which were formed during the 2012 United Nations Conference on Sustainable Development in Rio de Janeiro, took the place of the Millennium Development Goals (MDGs). The purpose was to create a set of global objectives that addressed the pressing environmental, political, and economic issues facing our planet (United Nations Development Programme, 2021).

In the SDGs, Goal 4 was designated as education. SDG 4 highlights the idea of inclusive education, which covers education's quality, equity, and diversity in addition to access to it. The ten (10) targets that form the basis of SDG4 are also distributed among other educational domains, including pre-primary education, higher education, adult education, gender, and peace education. According to Nishimura and Sasaoka (2016), equity refers to the distinct educational treatment of persons in different circumstances to attain equality. Equality refers to a situation in which all people are equal. From the perspective of equity, it is acceptable to provide extra assistance to groups that are at a disadvantage (Miwa, 2005). Thus, UNESCO (2017) analyzed the equity of education based on gender equality, geographical conditions, income status, language, and disability. On the other hand, reducing inequalities is embedded in SDG 10. This SDG calls for reducing inequalities in income as well as those based on age, sex, disability, race, ethnicity, origin, religion, or economic or other status within a country. The goal also addresses inequalities among countries, including those related to representation, migration, and development assistance.

Higher education institutions (HEIs) play critical roles in achieving the SDGs, especially SDGs 4 and 10. The localization of the SDGs offers HEIs the chance to research and increase the body of knowledge for a future generation with sustainable ideals. By assisting local communities in forming partnerships with government organizations, HEIs may play a vital role in connecting the local and global implementation of the SDGs. Local sustainability concerns could be addressed by identifying gaps between regional sustainability practices and national SDG policies. Approaches that are inclusive and participatory are crucial for enabling civil society to own common sustainability visions. It is imperative that HEIs collaborate with one another and assemble social capital from various organizations both inside and outside of communities (Smith et al., 2018) to cater to various students, such as students with disabilities, solo-parent students, and students who are part of indigenous communities.

Indigenous peoples are often not well known or understood at higher education institutes. This incomplete knowledge has contributed to the notion that Indigenous student populations are homogeneous (Shotton, 2018), exacerbated by the dearth of statistics on Indigenous students. The perception of indigenous students as belonging to a single racial group is frequently mistaken, and generalizations about their experiences are made. The truth is that Indigenous kids come from a variety of origins, places, and experiences. Although Indigenous students in higher education share certain common experiences, there is no single Indigenous higher education experience (Minthorn & Shotton, 2015; Shotton, 2018). Microaggressions toward Indigenous students frequently take the form of misconceptions and preconceptions. Although each incident may appear insignificant on its own, over time, they add up and can have a significant, substantial impact on one's well-being. Because of their encounters with prejudice, Indigenous students frequently feel like they do not belong in colleges (Shotton, 2018; Tachine *et*

al., 2017). In addition, Indigenous college access programs can be crucial sources of information for Indigenous students when high-quality college counseling and academic guidance are not generally available (Waterman et al., 2018). This is supported in the study by Pidgeon *et al.* (2014), which emphasized that a formal aboriginal mentorship program created improvements in self-esteem, self-efficacy, and graduation rates, which caters to the specific needs of the indigenous students as well as family engagement and involvement. Moreover, mentorship interactions produced significant effects on students' resilience and confidence, contributing to an effective post-secondary learning experience.

In the promotion of inclusive education in Higher Education Institutions (HEIs), vulnerable ones like students with disabilities should also be taken into consideration. According to Lamichhane and Kawatsu (2014), the negative effect of disability suggests that due to discriminatory behavior and other barriers in families and institutions, children with disabilities are less likely to attend school. Hence, the study of Carmit-Noa *et al.* (2021) highlighted the role of the Disability Support Center in supporting the processes of disability identification among students with disabilities as individuals and as a group. The study emphasizes the need for holistic and inclusive change in higher education policy and practice.

One of the new vulnerable groups in higher education institutions that needs more support is students who are single parents. People may have varied perspectives on single parents attending college. People may believe that a lone parent engages in risky sexual and social activities. Peers and lecturers may also view single parents as promiscuous. Hence, even though the stigma associated with single parenting has vanished in modern communities, it might still exist in college (Agarwal, 2009).

The SDG Goals are in harmony with the 1987 Philippine Constitution which declares that the state shall protect and promote the rights of all Filipino citizens to quality education at all levels and shall take appropriate steps to make education accessible to all. In Philippine Higher Education, to attain students' holistic development, all Higher Education Institutions (HEIs) shall ensure the delivery of support services and programs. One support service is the Institutional Student Programs and Services, which is designed to proactively respond to the basic health, food, shelter, and safety concerns of students, including those with special needs and disabilities, and the school. In addition to admission, scholarship, and financial assistance, multi-faith services are the concerns of the unit. On the other hand, students with special needs include persons with disabilities, indigenous people, and solo parents (Commission on Higher Education Memorandum Order [CMO] No. 9, 2013).

The HEIs shall ensure that academic accommodation is made available to persons with disabilities and learners with special needs with proper consultation and conference with the students with disabilities themselves, together with their teachers, parents, guardians, personal assistants, and other concerned professionals, whenever necessary (CMO No. 9, 2013). The success of students with special needs in higher education institutions requires the concerted effort of the different stakeholders—the academy, the home, and the community. CHED requires all HEIs to conduct monitoring and evaluation of the programs and services, which is equally reflected as one of the required documents by any higher education accrediting body such as the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), Inc.

Currently, the Tarlac Agricultural University's Office of Student Services and Development (OSSD) has newly created Student Inclusion Services in addition to the existing services of the office, which will greatly help to realize the mandate of the University provided in the aforementioned memorandum. The department is responsible for designing programs and services for students with disabilities, indigenous students, and solo parents. Moreover, the department is also responsible for providing the necessary information needed by the different agencies like CHED, the Philippine Association of State Universities and Colleges (PASUC), the Department of Social Welfare and Development (DSWD), the National Council for the Welfare of Disabled Persons (NCWDP), the Commission on Indigenous Peoples, etc.

This study conducted a profiling of the students with disabilities, Indigenous students, and students with solo parents enrolled in the second semester of Academic Year (AY) 2018-2019 at the University. This profiling aims to provide empirical data on crafting policies, programs, and other developmental initiatives to be conducted by the newly established unit and the University as a whole to better serve the most vulnerable sectors of the students. This will also contribute to the realization of SDGs 4 and 10 at the University. Likewise, these profiles elicited in the study were significant data that are needed by several government agencies and are required by several government laws such as RA 10931, otherwise known as the "Universal Access to Quality Tertiary Education Act; RA 11291, otherwise known as the "Magna Carta for the Poor; RA 8371, otherwise known as the Indigenous Peoples Rights Act of 1997; RA 8972, otherwise known as the "Solo Parents' Welfare Act of 2000; and RA 7277, otherwise known as the "Magna Carta for Persons with Disability" (as amended in RA 10754). Specifically, this study sought to (a) describe Indigenous Students in terms of their tribe and their dialect/language spoken, as well as scholarships/grants/loans and other benefits/services availed as Indigenous Student; (b) describe Students with Disabilities in terms of their disability/prevalence and scholarships/grants/loans and other benefits/services availed as Student with Disabilities (c) describe Solo-parent Students in terms of their source of income, number of dependent children, and scholarships/grants/loans and other benefits/services availed as Solo Parent Student; and (d) determine problems encountered and needs by the Students with Special Needs while pursuing their respective degree programs.

2.0 Methodology

The descriptive research design was utilized in this study to describe the students with special needs in terms of their year level, degree program, age and gender, scholarships/grants/loans and other availed benefits, problems encountered and needs. The tribe and language spoken by the indigenous students, the prevalence of the student's disability, the source of income, and number of dependents of solo parents were also described.

All students who declared themselves as students with disabilities, Indigenous students, and solo parent students enrolled in the University during the 2nd semester of the academic year 2018–2019, were the subjects of the study. Total enumeration was used in this study.

According to Chapter 3, Article 2, Section 2 of the Tarlac Agricultural University Code, "No student shall be denied admission because of race, sex, age, socio-economic status, religious belief, political affiliation, ideology, or physical disability." This provision in the University's Code reflects inclusivity in the admission of students. Table 1 presents the year level, degree program, gender, age, and marital status of the students with special needs in the University for Academic Year 2018-2019.

To gather the needed data on the profile of students with special needs, a questionnaire was used as an instrument, which was supplemented with interviews. In the data analysis, frequency counts and percentages were used to describe the profile of students with special needs. Tables were utilized to give the reader a comprehensive picture of the gathered data and information.

Ethical considerations were given appropriate attention through informed consent, explaining the participants' right to withdraw, non-disclosure of personal data, and other responses deemed confidential.

3.0 Results and Discussion

Few studies relative to indigenous people have been conducted in the Philippines (Capistrano, 2010; Fiagoy, 2000; Licen *et al.,* 2012; Mahinay, 1995). Most of these studies have focused on the daily lives, rights, cultures of the Filipino Indigenous people, and their integration into mainstream society. Very few studies have focused on the education of Indigenous people. Indigenous Peoples are distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy, or have been displaced. The land and natural resources on which they depend are inextricably linked to their identities, cultures, livelihoods, including their physical and spiritual well-being. They often subscribe to their customary leaders and organizations for representation that is distinct or separate from that of the mainstream society or culture.

Table 1 Demographic profile of students with special needs

Characteristics	Frequency (n=19)	Percentage
Year Level		
1st Year	9	47.00
2nd Year	3	16.00
3rd Year	1	5.00
4th Year	3	16.00
5th Year	3	16.00
Degree Program		
BAS (Bachelor of Animal Science)	1	5.26
BECED (Bachelor of Early Chilhood Education)	1	5.26
BEED (Bachelor of Elementary Education)	1	5.26
BSA (Bachelor of Science in Agriculture)	4	21.05
BSABE (Bachelor of Science in Agricultural and Bio System Engineering	1	5.26
BSE (Bachelor of Secondary Education)	3	15.79
BSIT (Bachelor of Science in Information Technology)	1	5.26
BSP (Bachelor of Science in Psychology	1	5.26
DVM (Doctor of Veterinary Medicine)	6	31.60
Gender		
Male	6	32
Female	13	68
Age		
19-20	8	42
21-22	4	21
23-24	3	16
25-26	3	16
27-28	0	0
29-30	0	0
31-32	1	4
Marital Status		
Single	19	100

Many Indigenous peoples still maintain a language distinct from the official language or languages of the country or region in which they reside (World Bank, 2021). Table 2 presents the tribal groups and the dialect/language spoken by the students who identify themselves as Indigenous people.

Table 2 Description of indigenous people students

Description	Frequency (n=8)	Percentage
Indigenous Students' Tribe		
Abelling	4	50
Igorot	4	50
Dialect/Language Spoken		
Kankana-ey	4	50
Ilocano	8	100
Zambal	4	50

Note: *Multiple response

It is revealed in the table that a percentage of students who were enrolled in the University during the Academic Year 2018-2019 belong to the Abelling and the Igorot Indigenous tribes. Little is known about the Abelling Tribe (spelled also as Aberling or Abellen) except that it is a tribal group found mostly in the hinterlands of Tarlac Province. It is believed that the Abellings are also descendants of the most popularly known Aeta tribes like the Mag-indi, Magan-tsi, Ambala, and Mariveleño. Their physical features are slightly bigger than the popularly known size of the aborigines. Their hair is not so kinky, unlike those of the Magan-tsi's, that others dubbed them "aeta mestizos". The Abellings also stay together in communities scattered all over the highlands of Bamban, Capas, San Jose, Mayantoc, and Tarlac City (Sunstar, 2014). On the other hand, the Igorot (Tagalog for 'mountaineer'), or ethnolinguistic groups in the Cordilleras, are any of various ethnic groups in the mountains of northern Luzon, Philippines, all of whom keep or have kept until recently, their traditional religion and way of life. Some live in the tropical forests of the foothills, but most live in rugged grassland and pine forest zones higher up (Britannica, 2019).

Since all of the students who belong to tribal groups come from the Highlands of Benguet and some western parts of Tarlac, all of them are capable of speaking the Ilocano dialect, all of them can also speak and understand Filipino. This means that there is almost no language barrier to pursuing their education at the University as majority of the students, staff, and faculty members are Ilocano and Filipino/Tagalog speakers. The Igorot students also speak Kankana-ey, while the Abelling students speak Zambal in addition to Ilocano as their tribal dialects.

On the other hand, findings of this study reports that these students have not received any Scholarships/Grants/Loans and other benefits, which are specifically offered for Indigenous students during the academic year 2018-2019. The present status of Indigenous students may be of great baseline data for the HEIs to provide necessary assistance since home-going behaviors can empower indigenous students to persist in college, providing them with the support that they need to succeed like high-quality college counseling and academic guidance, which are not generally available (Waterman, 2012; Waterman et al., 2018). Nonetheless, the students are hopeful that they will be given a chance to be part of the Tertiary Education Subsidy offered by the government in the next academic year through the Universal Access to Quality Tertiary Education Act, officially designated as Republic Act 10931. This government program offers free tuition and other fees, including

monthly stipend and book allowance.

In this study, the definition of disability is drawn from RA 7277, also known as the Magna Carta for Disabled Persons, wherein disability shall mean 1) a physical or mental impairment that substantially limits one or more psychological, physiological, or anatomical functions of an individual or activities of such individual; 2) a record of such an impairment, or 3) being regarded as having such an impairment (Section 4.c). On the other hand, disabled persons are those suffering from restriction or different abilities, as a result of a mental, physical or sensory impairment, to perform an activity in the manner or within the range considered normal for a human being (Section 4.a). Moreover, impairment is any loss, diminution, or aberration of a psychological, physiological, or anatomical structure or function (Section 4.b) (National Council on Disability Affairs, 1992).

The keywords in this definition are the limitation of major life activities, such as vision, hearing, physical mobility, cognition, learning, emotional control, and intellectual capacity. Thus, disabilities that are readily visible such as blindness, deafness, and physical disabilities are a part of this definition; however, disabilities that cannot be seen, such as learning disabilities, autism, and mental illness, are also a part of this definition as these too can impact major life activities. Table 3 presents the prevalence of disabilities of students with additional needs.

Table 3 Prevalence of disability among respondents

Description	Frequency (n=5)	Percentage
Disability		
Psychosocial Disability	1	20
Orthopedic Disability	3	60
Hearing Impairment	1	20

Table 3 presents the data of the students with disabilities at the time of the conduct of the study. The profiling determined 4 types of disabilities: psychosocial disability, cerebral palsy, orthopedic disability, and hearing impairment. Findings revealed that most of these students have an orthopedic disability due to chronic illness.

According to the Philippines' Department of Health (DOH), psychosocial disability includes bipolar disorder, depression, ADHD, epilepsy, and other long-term and recurring mental or behavioral issues. Based on the interview conducted with the family of the participants with psychosocial disability, their child's [psychosocial] disability is due to epilepsy. With this, the student is taking a lifetime maintenance with regular computerized tomography (CT) scans and angiograms. The DOH also declares that Orthopedic (Musculoskeletal)/ Physical disability includes people with dwarfism and amputated hands or feet, cerebral palsy, as well as individuals with scoliosis. The three students with orthopedic disabilities have their devices, such as wheelchairs and prosthetics. These devices help the students with disabilities to partially utilize, if not fully, the facilities and amenities of the University. Further, individuals who are deaf or can hardly hear are considered impaired by the DOH. Based on the follow-up interview with the families of the student, she is supported by a hearing aid to cope with the daily tasks and activities at the University. They also revealed that the student is taking medicines for her impairment.

The provision in RA 7277, Sec. 13 states that "the State shall provide financial assistance to economically marginalized but deserving disabled students pursuing post-secondary or tertiary education. Such assistance may be in the form of scholarship grants, student loan programs, subsidies, and other incentives to qualified disabled students in both public and private schools. At least five percent (5%) of the allocation for the Private Education Student Financial Assistance Program created by R.A. 6725 shall be set aside for disabled students pursuing vocational or technical and degree courses" (National Council on Disability Affairs, 1992). Although, the participants claim that they are recipients of the Free Higher Education Act, which provides free tuition and other fees in the University, findings of this study report that none of the students with a disability during the school year 2018-2019 are enjoying any scholarship or grant from the government and/or private individuals, which are specifically given to students with disabilities. They do not have a loan from the government or private individuals, either.

In this study, a solo-parent is defined based on the Solo Parents' Welfare Act of 2000 or RA 8972. Section 3.a of the said act states that "Solo parent is any individual who falls under any of the following categories: (1) a woman who gives birth as a result of rape and other crimes against chastity even without a final conviction of the offender: Provided, that the mother keeps and raises the child; (2) a parent left solo or alone with the responsibility of parenthood due to death of spouse; (3) a parent left solo or alone with the responsibility of parenthood while the spouse is detained or is serving sentence for a criminal conviction for at least one (1) year; (4) a parent left solo or alone with the responsibility of parenthood due to physical and/or mental incapacity of spouse as certified by a public medical practitioner; (5) a parent left solo or alone with the responsibility of parenthood due to legal separation or de facto separation from spouse for at least one (1) year, as long as he/she is entrusted with the custody of the children; (6) a parent left solo or alone with the responsibility of parenthood due to declaration of nullity or annulment of marriage as decreed by a court or by a church as long as he/she is entrusted with the custody of the children; (7) a parent left solo or alone with the responsibility of parenthood due to abandonment of spouse for at least one (1) year; (8) an unmarried mother/father who has preferred to keep and rear her/his child/ children instead of having others care for them or give them up to a welfare institution; (9) any other person who solely provides parental care and support to a child or children; and (10) any family member who assumes the responsibility of head of family as a result of the death, abandonment, disappearance or prolonged absence of the parents or solo parent (LawPhil, 2000).

Tehan (2007) argued that single-parent students are a special population who require different avenues of advice than traditional students. Stresses ordinarily present in an average college student's academic experience can present extraordinary challenges for single parents. For example, having to schedule child care, caring for sick or special needs children, meal planning and preparation, assisting with children's homework, taking children to doctor's appointments, and prioritizing work/financial support with the allocation of time for study to ensure academic success are just a few of the obstacles that single mother students face weekly. Understanding such challenges and resources is important in advising this student populace to stack the odds of success as greatly in their favor as possible (Tehan, 2007).

Gasman and Conrad (2015) noted that ensuring equal access to college is only half of the challenge of equal access to educational opportunities in a diverse society. Equal access and opportunity mean institutional grasp and valuation of the cultural, social, and educational resources unique students bring to college, including

the underserved populace of single-parent mothers who are students matriculating into higher education institutions.

However, with the challenges of single mothers who are at the same time undergraduate students, this study does not only include students who are single mothers but also single fathers who are pursuing their tertiary education in the University.

Table 4 Description of solo-parent students

Description	Frequency (n=8)	Percentage
Source of income/financial support		
Family	4	67
Small business	2	33
Number of Dependents		
One	5	83
Two	1	17

Table 4 reveals that most of the solo-parent students at the University are supported by their families in their higher education pursuits. Some of them are making extra efforts to sell merchandise, like opening a sari-sari store and selling snacks in their respective communities and at the University, to support their schooling and their children while pursuing their respective degrees. Based on the interview conducted with parents of single-parent students, most of them have had their children during their high school years and were eventually left by their partners before they enrolled in college.

The solo-parent students' views when they took the risk to pursue their higher education is similar to Duncan's (2011), who argued that education can help minimize the economic burden of early parenthood by helping young parents to attain the educational resources necessary to achieve their economic and other desired life goals. More and more people recognize education is a game-changer in the global economy. Their motivation for studying is to have a promising future for their babies.

The mandate of RA 8972, section 9, which states that "The DECS, CHED, and TESDA shall provide the following benefits and privileges: (1) Scholarship programs for qualified solo parents and their children in institutions of basic, tertiary and technical/skills education; and (2) Non-formal education programs appropriate for solo parents and their children (LawPhil, 2000). Although, the solo-parent student claim to be recipients of the Free Higher Education Act, the findings of this study report that, like the students who are part of Indigenous groups and students with disabilities, the solo-parent students are not enjoying any scholarship or grants specifically given to solo-parents during the school year 2018-2019.

Financial support is the most pressing need and the problem of students with additional needs. Since the students who are part of Indigenous groups come from remote areas, additional financial support for their travel or boarding expenses is needed. Students with disabilities have medical needs, including devices to support their mobility and access to facilities and amenities of the University. Lastly, solo-parent students have dependents to support them while pursuing their higher education. Secondary to this is the teacher- and University-support. Some professors are not considerate enough when some of them cannot attend classes and miss some activities and quizzes due to the pressing financial problems and other needs. In addition, the students with orthopedic disabilities can hardly attend classes on the second floor due to their motor disability. The third is a minor cultural adjustment and hot weather conditions at the University. The students from the highlands are experiencing cultural adjustment, while food services and community norms are

some of the changes they are encountering.

4.0 Conclusion

The current study determined the significant profiles of Indigenous students, single-parent students, and students with disabilities. It has been noted that Indigenous students' dialects and proximity were considerable factors in their choice of higher education institution to enroll in. Regarding the students with disabilities, 2 out of every 1000 college students have either a psychosocial disability, an orthopedic disability, or a hearing impairment. Meanwhile, the solo parents are pursuing their tertiary education despite being separated from their partners or spouses, with the aid of their family members.

Further, the findings of this study reveal that higher education institutions and the government lack financial support solely intended for students with special needs while pursuing their respective degrees. Thus, based on the findings and conclusions, it is recommended that the University, through the Office of Student Services and Development, seek financial support from government agencies and/or private individuals and organizations to provide scholarships and/or education grants to the students with special needs. Each program chairperson can also assign lecture rooms and laboratories for students with orthopedic disabilities to the first floor. In terms of the Indigenous students, the University, through the Office of Student Services and Development, may conduct activities to help them adjust culturally. Finally, to proactively determine the students with special needs and elicit empirical data, admission forms, enrollment forms, cumulative record forms, and other necessary documents may be revised and used.

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Home technology education program among state universities and colleges (SUCS) in region III, Philippines

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Abstract
Evaluation is the systematic identification of the effects – positive or negative, intended or not – on individual households, institutions, and the environment caused by a given development activity such as program or project. Evaluation helps better understand the extent to which activities reach the poor and the magnitude of their effects on people's welfare. This study evaluated the Home Technology Education Program Among State Universities and Colleges in Region III, Philippines in terms of curriculum, resources, outcomes, students and problems encountered in the program. The questionnaire was the main instrument in gathering the data. The respondents were the Home Technology Teachers, Deans or Heads of the Home Technology Education program, fourth year students and school librarians. Results of the study show that there are only four SUCs in Region III offering Home Technology program with different titles; they were accredited by the AACUP; and they complied with the standard number of units in the general education, professional education and specialization courses. Majority of the Home Technology teachers were Master's Degree Holders with an academic rank of associate professor and with appropriate eligibilities. They have attended trainings and seminars in different levels and they commonly used laboratory and demonstration methods in teaching. They also conducted research and extension activities relevant to the program. Most of the facilities and equipment were available and functional but outmoded and inadequate; they complied with the number of book titles in general education, professional education and specialization courses. Home Technology students participated in various competitions and received awards up to the regional level. Varied and relevant activities were also provided to them. Results implies that Home Technology Education program still exists among SUCs in Region III despite of the proliferation of contemporary and more enticing allied courses.

Keywords: Evaluation, home technology program, state universities and colleges, curriculum

Introduction
Home Technology is one of the areas in technology education. It is a field of study covering occupational and educational areas associated with home, technology and community life activities. Its general focus is to develop home technologists who are experts in the areas of food, nutrition, clothing, handicrafts, and home management (Camarao, 2002) [2].

The twenty first century presents unique challenges for the home technology education. It must be able to respond to the rising student expectations and the demands of global competition. The quality of knowledge that should be developed among Home Technology students is increasing considering the nation's global competitions. This posses a major responsibility on the institutions of home technology education program in the country. With the abundance of human resources, Philippines is eminently equipped itself as a global leader in the knowledge society. Development of any nation does not depend on the available resources but on effective utilization of these resources. Unless effective home technology education is provided to the youth of the nation, the process of development cannot be accelerated. The globalization can prove to be an effective means of modifying the flawed education policy on the lines of those developed countries that have successfully transformed themselves to an economic power with the help of their technical education programs (Banad, 2011) [28].

The expansion of industries and the overall economy in service industries such as tourism, hotels, foods and food processing, clothing, home industries and other sectors of the economy

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have significantly increased the demand for trained manpower in home technology and allied fields. As the population continues to increase and the Philippine enters the league of industrialized economies, the relevance of and need for technology courses will continue to be felt for a long time (Camarao, 2002) [2].

Moreover, with the advent of the K-12 program, the need for manpower to teach technology courses for those who would opt not to pursue higher education will bolster the need for technology courses (Bulletin Today, June 2011 issue) [11]. The additional two years in the secondary curriculum is intended for the development of practical skills and vocational expertise among the young people. The vision is to train students who would be able to support their lives, families and even their college education after graduation in the high school. The technology skills and competence they gain would qualify them for employment in different industries or they could be self-employed and entrepreneurs.

To cope with all the challenges, institutions of higher learning should produce quality graduates who will develop the economic and social components of nation building so that this country can be aligned among those considered as developed countries in the world.

Hence, this study was conducted to evaluate the home technology education program among SUCs in region III, which may serve as a basis to elevate home technology education program.

Objectives of the Study
This study was conducted to evaluate the Home Technology Education Program among State Universities and Colleges in Region III, Philippines. Specifically, the study aims to:
1. Determine the status of the home technology education program among SUCs in region III.
2. Describe the home technology education program of SUCs in Region III in terms of curriculum, resources, outcomes and students.
3. Identify the problems encountered in the home technology education program and how are these solved.

Significance of the Study
The result of the study will serve as an instrument in the improvement of the home technology education program.

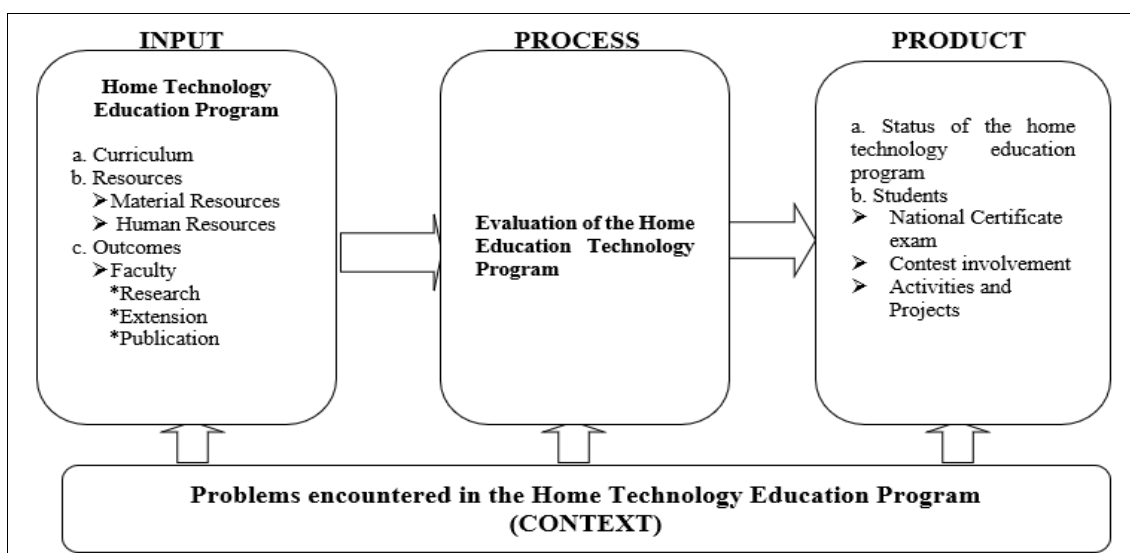Inadequacies in instructional facilities necessary for the program to operate effectively could be acquired. It may also serve as basis for planning teacher development program such as graduate studies, workshops, seminars and in - service education.

To curriculum planners, the findings of the study will provide the basis for strengthening and improving the home technology education program. This will also provide data that permit greater precision in determining the value, viability and relevance of the program. It will also serve as a baseline information in determine the state and operation of home technology education program included in the study.

To the teachers, the identification of the strong and weak points of the program will provide a sound basis to make improvements and serve as media understanding and cooperation in guiding the program to one direction – quality education. Components found to be excellent would be sustained for effective and efficient program implementation.

To the students, the findings of the study will be valuable because they are the primary recipients of whatever action that may be undertaken by the curriculum planners, SUC officials and teacher in making home technology education program a successful endeavor.

The study will be of great help to industry managers as it would provide them information to the effective selection of manpower resources needed for their respective industries.

The study will give the reader particularly school authorities to higher educational institutions a comprehensive picture of home technology education program. It would provide them substantial information needed to make an objective evaluation on the program which in the end justifies sustaining the said program.

Ultimately, the result of the study will become the basis in the formulation of policies and standards for home technology education program of SUCs in region III.

Scope and Delimitation
This study focus on evaluating the home technology education program in region III. It dealt with the program components in terms of curriculum, human resources, material resources, outcomes and students and the problems encountered in the home technology education program.

Conceptual Framework

Fig 1: Paradigm of the Study

This study makes use of the CIPP model developed by Donald Stufflebeam in 1971. The CIPP stands for the core concepts of the model: Context evaluation, Input evaluation, Process evaluation and Product evaluation. The Context evaluation was concern with the problems encountered in the Home technology program and how are these solved. The Input evaluation was the components of Home Technology Education program such as curriculum, material resources, human resources, and outcomes. The Process evaluation involved the evaluation of Home Technology Education program. The components of Home Technology program was use to evaluate the program; and the Product evaluation was the student's performance in the NC assessment exam, contest involvement and the present status of Home Technology Education program. The CIPP model recognizes types of decisions encountered in education planning, programming, and implementing of programs. This model is suitable for this kind of evaluation because on this concept, evaluation is for improvement (Stufflebeam 2002) [29].

Materials and Methods
Research Design
The evaluation method of research was used in this study. It was evaluation method because it evaluates the Home Technology program in terms of curriculum, resources, outcomes and students.

Subject of the Study
The subjects of the study were the SUC's in Region III offering Home Technology Program. The home technology teachers, dean/head, librarian and the fourth year home technology students.

Data Gathering Procedure
The researcher asked and secured permission from the President of the SUC's offering Home Technology Program, and the Dean of the concerned College to conduct the study. The researcher personally conducted the evaluation of the program. Assistance from the Department Head were solicited during the administration of the questionnaire. The researcher personally retrieved the questionnaire from the respondents and it was supplemented with interview to validate data from the teachers, students and department heads.

Statistical Analysis
The data gathered were tabulated, organized, analyzed and interpreted using frequency, percentages and rank.

Results and Discussion
This chapter presents, analyzes and interpretations of the data gathered from the respondents of the study. The data are presented according to the specific problems stated above. Presented herein are the evaluations of Home Technology Program among SUCs in Region III, Philippines.

Status of Home Technology Program in Region III
Table 1 revealed that among the fourteen SUCs in Region III, only four offers Home Technology program, these are Bulacan State University (BULSU), Don Honorio Ventura Technological State University (DHVTSU), Pampanga State Agricultural University (PSAU) and Tarlac Agricultural University (TAU). In BULSU, the program is Bachelor of Science in Home Economics which is under the College of Home Economics. In DHVTSU, the Home Technology is one of the specializations of the Bachelor of Science in Technical Teacher Education (BTTE) program which is under the College of Education. In PSAU, the program is named Bachelor of Science in Home Technology with majors in Home Economics Education and Food Processing which is under the Institute of Home Science and Technology. In TAU, the program is named Bachelor of Science in Home Technology Management. This is a ladderized program offering certificate in Home Technology Management leading to the degree BS Home Technology Management which is under the College of Education.

Table 1: Status of home technology education program among SUCs in Region III

Name of School	Program Offered
Bulacan State University (BULSU)	BS Home Economics (BSHE)
Don Honorio Ventura Technological State University (DHVTSU)	BS Technical Teacher Education major in Home Technology (BTTE-HT)
Pampanga State Agricultural University (PSAU)	BS Home Technology (BSHT)
Tarlac Agricultural University (TAU)	BS Home Technology Management (BSHTM)

This shows that Home Technology Education program still exists among SUCs in Region III despite of the proliferation of contemporary and more enticing allied courses. Some SUCs stopped offering the program because of very low enrolment while others revised and renamed the program into more attractive and more in-demand course such as Hotel and Restaurant Management. However, some SUCs opted to continue offering the program by revising their curriculum and integrating concepts that will meet the demands of the society. Presently, the program is starting to gain attention again in the academe because of the K-12 curriculum in the Department of Education. Wherein, one of the tracks of the curriculum is the Tech-Voc where some of the skills are under home technology education program.

Evaluation of Home Technology Education Program in terms of Curriculum
Program Enrichment
In region III, State Universities and Colleges offering home technology education program enriched their curriculum basically to keep abreast with the changing times and demands for job in the market. These SUCs enrich/review their curriculum every two and three years. Some of them enrich their program to align their curriculum to the competencies of Technical Education Skills Development Authority (TESDA) to qualify the students in taking the National Certificate (NC) assessment exams in the different areas of Home Technology.

Also, enrichment was made to integrate concepts needed to meet the competencies in the licensure examination for teachers to increase their passing percentage because their students are not only prepared to be employed in the industries but to teach in higher education and in basic education. Their program includes industry immersion or practicum and practice teaching to give the students an opportunity to experience the work in the industry and teaching thus, giving them the option for their future career.

These curriculum enrichment/enhancement activities among

SUCs were conducted to make the home technology program relevant to the needs of the society particularly the demands for job in the global market. Also, this is to make the program saleable to attract students' enrollees for this course.

Accreditation Status
Table 2 shows the accreditation status of the Home Technology Education Program among SUC's in Region III. The results show that Home Technology programs in Region III are level I, level II, and level III accredited by the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP).
This implies that these programs had met or even surpassed the minimum requirements set by the AACCUP as to faculty, curriculum, students, research, extension, library, physical facilities, laboratories, and administration. It is through accreditation that improvements could be made in the institutions which eventually lead to a better quality of education.

Table 2: Accreditation Status of Home Technology Education Program

State University and Colleges	Accreditation Status
Bulsu	Level II
Dhvtsu	Level III
Psau	Level II
Tau	Level I

Compliance with the CHED Memorandum
According to the Deans and Chairman of the Home Technology Education programs of the four SUCs, there is no specific CHED memorandum for Home Technology Education program. Three SUCs are adopting the CHED memorandum no.30 series of 2004 also known as Revised Policies and Standards for Undergraduate Teacher Education Program. However, in the case of TAU wherein the Home Technology curriculum is not a teacher education program, the program is based on the approval of board resolution and modular program of the Technical Education and Skills Development Authority which is also approved by the CHED.

Table 3: Number of Units offered by the SUCs in Region III in the BSHT Curriculum

SUCs	General Education		Professional Education		Specialization	
	No. of Units (63)	Compliance	No. of Units (51)	Compliance	No. of Units (60)	Compliance
BULSU	80	OC	31	UC	63	OC
DHVTSU	73	OC	51	C	60	C
PSAU	74	OC	51	C	62	OC
TAU	78	OC	----------	-------------	84	OC

Legend

General Education	Professional Education	Specialization
Above 63 units – Over Complied	Above 51 units - Over Complied	Above 60 units- Over Complied
63 units – Complied	51 units – Complied	60 units - Complied
Below 63 units – Under Complied	Below 51 units – Under Complied	Below 60 units – Under Complied

The table shows that all the SUCs in region III offering Bachelor of Science in Home Technology have over complied with the units set by CHED for general education which is 63 units. In terms of professional education they have complied with the units set by the CHED while BULSU is under complied. In the case of TAU, they do not offer professional education courses because their curriculum is not a teacher education program. With regards to specialization, the four SUC's have over complied and complied based on the units required by CHED.

Evaluation of Home Technology Education Program in terms of Resources
Human Resources
The result revealed that majority of the Home Technology teachers are master's degree holder, some had finished in their doctoral degree and still many are pursuing their doctoral degree. This shows that teachers of Home Technology are qualified to teach in the tertiary level because they are academically prepared. However, those faculties who only have MA units are not yet qualified to teach in the tertiary level, at least for one to be permanent in college is to be a Master's degree holder.
In terms of their academic rank, the result reveals that most of the Home Technology teachers are associate professor which means that these teachers meet the criteria for evaluation as stated in the National Budget Circular (NBC 461) in terms of instruction, research and extension. With regards to their eligibilities, the result shows that all the Home Technology teachers are eligible and holders of National Certificate (NC) II. Most of the teachers now in the Home Technology program are still young in the service ranging from 15 years

and below. This maybe because for the past years, many of the Home Technology teachers retired from the service.
In terms of trainings, workshops and seminars attended, the result revealed that teachers of home technology program are actively attending in-service trainings and seminars both local and international to update themselves on the trends relevant to their specialization. Their attendance to these seminars helps them create an effective learning environment, improve teaching-learning situations, keep updated on modern instructional devices and inspire them to become better teachers in the modern world. In terms of the nature of participation of teachers on their trainings, seminars and workshop, most of them attended as participants. There is only one who attended an international conference as paper presenter.
With regards to the methods and strategies employed by the Home Technology teachers, the result implies that the commonly used method in teaching Home Technology is the laboratory and demonstration method. Apparently, these methods are appropriate to the nature of lessons in Home Technology which are more on skills training. This further show that Home Technology teachers used varied teaching methods depending on the lesson, ability of the learner, classroom condition and the school environment.

Material Resources
In terms of the laboratory facilities and equipment, most are available and functional, however, some were outmoded and inadequate to cater the number of students. This implies that educational managers should prioritize the allocation of budget for the purchase of adequate and state of the art laboratory equipment and facilities. This will enhance the

competencies of the students to compete for job in the local and global market.

In terms of the number of book titles available in the library of SUCs in Region III offering Home Technology Education program. The table shows that in terms of general education, all the four SUCs in region III offering HT program are over complied with the number of book titles set by the CHED which is five (5) per course. Under the professional education, BULSU, DHVTSU and PSAU are over complied and TAU is complied; while in the field of specialization courses, the four SUCs are complied with the number of book titles.

Table 4: Number of Book Titles Available in the Library of SUCs in Region III for the Home Technology Program

SUCs	General Education			Professional Education			Field of Specialization		
	No. of book Titles	Ave. no. of book titles per subject	Comp-liance	No. of book Titles	Ave. no. of book titles per subject	Comp-liance	No. of book Titles	Ave. no. of book titles per subject	Comp-liance
Bulsu	517	12	OC	324	8	OC	250	5	C
Dhvtsu	400	10	OC	250	12	OC	166	5	C
Psau	510	8	OC	404	10	OC	227	5	C
Tau	1,191	8	OC	397	5	C	119	5	C

Legend: More than
5 – Over complied
5 – Complied
Less than 5- under complied

The result shows that the SUCs in region III consider adequate library holdings very necessary to support institutions' services and for the better quality output of students. According to Balmores (2000), library is considered as the most important instructional resources of an institution. An indication of library quality is its store of acquisition.

Evaluation of Home Technology Education Program in terms of Outcome
Faculty Involvement in Research
Table 5 presents the extent of researches among home technology teachers of the SUCs in region III offering home technology program for the past three years.

The data reveals the extent of researches as an activity among home technology teachers for the past three years. In BULSU, four or 57% are conducting research with a description of satisfactory. In DHVTSU, six or 67% are conducting research with a description of very satisfactory while in PSAU, two or 40% are conducting research with a description of fair. And in TAU, two or 50% are conducting research with a description of satisfactory.

Table 5: Evaluation of the researches conducted among home technology teachers

SUCs	No. of Teachers	No. of teachers conducting research	Percentage	Description
Bulsu	7	4	57	Satisfactory
Dhvtsu	9	6	67	Very Satisfactory
Psau	5	2	40	Fair
Tau	4	2	50	Satisfactory
Total	25	14	56	Satisfactory

Legend:
81-100% - Outstanding (O)   21- 40% - Fair (F)
61-80% - Very Satisfactory (VS)   1-20% - Poor (P)
41-60% - Satisfactory (S)

It further reveals that among the SUCs in region III offering home technology education program, 14 or 56% of the teachers are conducting research with a description of satisfactory. Among the researches conducted is action research, curricular assessment, teaching effectiveness, product development and tracer studies. This indicates that faculty members of the home technology program are giving importance to research as a way to improve educational outcomes and to improve their performance.
(Guerero 2009,) pointed out that any attempt to change any component of the educational system should be preceded by research. (Sutaria 2009,) further stressed that we cannot make any changes without the support of research and any form of educational innovations or thrust be of not for the sake of change but for the sake of solving problems and of improving the total educational programs.

Faculty Involvement in Extension
Table 6 presents the extent of extension activities of the SUCs in region III offering home technology education program.

Table 6: Evaluation of the extension activities among home technology teachers

SUCs	No. of Teachers	No. of teachers conducting extension activities	Percentage	Description
Bulsu	7	5	71	VS
Dhvtsu	9	7	78	VS
Psau	5	4	80	VS
Tau	4	3	75	VS
Total	25	19	76	VS

Legend:
81-100% - Outstanding (O)   21- 40% - Fair (F)
61-80% - Very Satisfactory (VS)   1-20% - Poor (P)
41-60% - Satisfactory

In terms of involvement in extension activities out of the twenty five teachers, nineteen or 76% are conducting extension activities with a description of very satisfactory. This indicates that the Home Technology teachers are active in rendering extension services relevant to Home Technology program and suited to the needs of their clienteles. This maybe because this is one of the criteria that is given much credit on faculty evaluation and accreditation of programs.

Faculty Involvement in Publication

Table 7 presents the extent of published researches of the home technology teachers. The table shows the extent of published researches of the home technology teachers among the four SUCs. In BULSU, three or 43% of the home technology teachers have published their researches with a description of satisfactory. In DHVTSU and PSAU four or 44%, two or 40% have published researches respectively with both satisfactory description. And in TAU, one or 25% have published researches with a fair description.

Table 7: Evaluation of Published Researches among Home Technology Teachers

SUCs	No. of Teachers	No. of teachers conducting extension activities	Percentage	Description
Bulsu	7	3	43	Satisfactory
Dhvtsu	9	4	44	Satisfactory
Psau	5	2	40	Satisfactory
Tau	4	1	25	Fair
Total	25	10	40	Fair

Legend: 81-100% - Outstanding (O)   21- 40% - Fair (F)
61-80% - Very Satisfactory (VS)   1-20% - Poor (P)
41-60% - Satisfactory (S)

Among the published researches are on action research, curricular assessment, teaching effectiveness, tracer studies, product development and policy oriented studies.

This indicates that the Home Technology teachers are also active in publishing their researches to various educational journals either in the local, regional and national levels. This is maybe because one of the criteria that is given much credit on faculty evaluation and accreditation of programs is paper publication. This also manifests the quality of the research output being conducted by the faculty of the Home Technology program.

Evaluation of Home Technology Education Program in terms of Students
National Certificate Exam (NC)
Results of the study revealed that the Home Technology students were NC II holders in commercial cooking, bread and pastry production, food and beverage service, food service management, food processing and nail care. However, in the case of Pampanga State Agricultural University, the students are not NC II holders because taking the NC assessment exam was not practiced in their program. It further revealed that the Home Technology students of the three SUCs practicing NC assessment exam was competent in the different area of specialization. It means that the students were future quality workers and were able to compete internationally because employers abroad prefer NC II certified workers.

Contest Involvement
In terms of the contest involvement of the Home Technology students, BULSU participated and won first place in kusina master, and robinson tofu challenge; second place in kalutong bulakenya, table setting and skirting, and cake decoration; and fourth place in market basket. DHVTSU participated and won first place in table setting and skirting and dressmaking; and fourth place in floristry and cake decoration. PSAU participated and won first place in floristry and third place in table setting and skirting; and TAU participated and won second place in bangus deboning; fourth place in dressmaking; and fifth place in cake decoration.

This shows that Home Technology students were able to showcase their talents and skills in the different contest they have participated. It further shows that Home Technology students are competent on their skills as shown on the awards they received during the contest. Majority of the contests they had participated were on the regional skills olympics which is participated by all the SUCs in Region III.

Activities and Projects
In terms of the activities and projects of students in their Home Technology courses, the result show that Home Technology students are exposed to varied activities and projects in their food, handicraft, beauty care, food service and clothing courses relevant to the competencies of the course and to the work they are expected to perform in the future. Thus, equipped with adequate knowledge on and skills in the different areas in home technology, with hard work and good management, it can be sure that these endeavors can turn into a successful entrepreneurial venture.

Problems Encountered in the Home Technology Education Program and
How are these solved?
The result shows that majority of the problems encountered are school related problems. Solutions were done by the SUCs in solving the problems they have encountered except for the CHED Memo specific for the Home Technology Education program.

With regards to the problem on outdated and insufficient facilities and equipment, the teachers used alternative or substitute resources in the conduct of their laboratory activities. They also ask their students to bring their own tools. They maximize what is available and used improvised tools and equipment.

In terms of the problem on obsolete reference materials in the field of Home Technology, the teachers used the internet in looking for additional reference materials.

In terms of the possible phasing out of the program because of low passing percentage in the LET exam, the SUC's in Region III offering Home Technology Teacher Education program revised their curriculum by integrating the concepts in the competency of the PRC to increase the passing percentage in licensure exam.

With regards to the problem on class size on a laboratory class, the teacher limits the number of students in the

laboratory classes by proper scheduling. The teacher also raised the problem to the higher authority and still waiting for the action.

Table 8: Problems Encountered in the Home Technology Education Program

Problems Encountered in the Home Technology Education Program	Solutions done	Frequency	Rank
Outdated Facilities and Equipment	Use of alternative or substitute resources	8	1
Insufficient Facilities and Equipment	Ask student to bring their own tools Maximize what is available Use improvise equipment	6	4
Space in the laboratory room is not enough	Raised the problem to the authority for action.	4	5
Class size	Limit the number of students in the laboratory classes	3	6
Obsolete reference materials in the field of home technology	Use the internet in looking for the latest reference materials	8	1
Low passing percentage in the LET exam	Revision of the curriculum to integrate concepts in the competency of the PRC in the LET exam	3	6
Phasing out of the Program	None	1	8
There is no CHED Memorandum specific for the home technology program	None	7	3
Student behavior	Being patient	1	8

Conclusions and Recommendations
Conclusions
The following conclusions were drawn based from the results of the study:
1. There are only four SUCs in region III offering home technology education program. Their program is named BS in Home Economics, BS in Home Technology, BS in Technical Teacher Education major in Home Technology and BS in Home Technology Management. Two of these programs were a separate program under the college of home economics and institute of home science and technology. The other two were under the college of education.
2. SUC's in region III believed in the accreditation of programs as a way of elevating their BSHT program to higher standards. They also complied with standards set by the CHED as stated in the CHED Memorandum no. 30 series of 2004.
3. Varied and relevant activities were provided to Home Technology students to demonstrate their understanding and concepts in the different areas of Home Technology.
4. Majority of the teachers teaching Home Technology are Master's Degree Holders with an academic rank of associate professor and with appropriate eligibilities.
5. There is no specific CHED memorandum for the Home Technology Education program that will serve as guide if the program meets the standards set for the program.

Recommendations
Based on the results and conclusions of the study, the following are hereby recommended:
1. The four SUCs in region III should work together and collaborate with other SUCs in the country offering Home Technology program to formulate policies and standards specific for Home Technology Education program and submit it to CHED for evaluation. This should include the titling of the program. Continue submitting the BSHT program to a higher level of accreditation.
2. Home Technology teachers should be encouraged to attend fora, particularly international fora to keep them abreast with the current developments in Home Technology abroad and new trends in teaching home technology.
3. Encourage faculty to conduct researches related in the

field of Home Technology and similar study should be conducted to other SUCs offering Home Technology program in other regions of the country.

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ASSESSMENT OF VITALITY OF PANGASINAN LANGUAGE IN THE MUNICIPALITY OF SAN CARLOS CITY: BASIS FOR A RECOVERY PLAN IN LANGUAGE ENDANGERMENT

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ABSTRACT

Globally, languages are disappearing at an unprecedented rate. To establish successful strategic options on how to protect the language's survival, members of linguistic communities must be knowledgeable of the reasons for language extinction or endangerment. This paper discusses how the number of people who speak Pangasinan, which is the eighth most common language in the Philippines, is decreasing over time and how this is affecting the language. It gives an outline of the Pangasinan language's current vitality and covers the Philippines' language policy history. It also considers a situation in which globalization may provide unexpected chances for language revitalization. This study seeks to serve as a springboard for future research and aids teachers and other relevant educational personnel in identifying, comprehending, assessing, and implementing appropriate language-endangerment remedies. The authors also provide suggestions for future research based on their findings.

INTRODUCTION

Reading, writing, speaking, and listening are the four skills that must be mastered in order to be considered proficient in any language. The last skill (writing) is acquired after mastery of the other three. People don't typically see it as something that comes easily to them. It must be learned and practiced in a systematic and organized way or setting. It necessitates both cognitive and linguistic abilities. This competence requires the learner's capacity to produce and communicate ideas through text (Urga, 2014). Nowadays, the language system is comprehensive. The language system influences educational thinking. Each individual has corresponding credits for their language. According to Gbollie and Harriett (2017), a language is a unit of work in a subject or instruction method. Therefore, when we talk about language, we refer to the media of a person interested and willing to share what they think to communicate correctly or deliver the message.

Language vitality is a process of purposive, conscious or unconscious, psychological, sociological, philosophical, and scientific learning that brings the development of every individual to their fullest extent and the development of the society they live in. It is an integral part of individuals' development according to society's needs and demands that enable them to fulfill their responsibilities and possibilities. So, it is needed to protect languages from extinction. It is an essential element of culture and a means of communication. By using language, everyone can build and express their emotions, intentions, values, norms, notions, and practices, nurturing their understanding and strengthening their social life. It presents some factors for identifying the identity of individuals and groups. Therefore, language is technically essential to the attainment of development goals and for progress towards sustainable development.

According to Krauss (2017), approximately 6,000 languages spoken around the world may no longer be adopted by the next generation. The elderlies in San Carlos City are mostly fluent in their native language, Pangasinan, but some fail to transmit it to younger generations. As a result, grandparents, parents, and the elderlies refrain from conversing with their children in their native tongues. Children's communication and vocabulary needs are not met. Therefore, they adapt and utilize other languages. So with that, the effect is a lower rate of the use of native languages and causes a decrease in the linguistic competence of their native language.

In addition to that, Wurm (2018) agrees with Batibo (2013) that the primary cause of language endangerment is the stronger two or more languages that overpower the weaker language. When this situation happens, it could be either the stronger language kicks the weaker ones or the softer language shifts to a more robust language. In this paper, language endangerment is defined as a gap in language use. So it is an important parameter to assess the vitality of the Pangasinan language. It may serve as a foundation for the recovery of plans in cases of language endangerment.

Moreover, this study is a foundation for educational implications and recommendations regarding communication skills. As a result, it helps develop everyone's knowledge of being a global citizen. It also helps them learn about inequalities, discrimination, and injustices that affect their community and connect to other countries' issues and problems. Through the vitality of language and developmental strategies, people learn to adjust themselves, remain balanced with the people around them and create healthy relationships.

San Carlos City, just like most of the cities in the Philippines, has been implementing action for development and recovery plans for their language endangerment, which is the Pangasinan language. The Local Government Unit is taking all the chances to ensure the quality of their language despite these trying times. For this reason, the researchers came up with developing and modifying the Pangasinan vitality assessment in San Carlos City. The researchers also want to maximize the platform to solve language endangerment and make it the basis for a recovery plan. This research will take place in San Carlos City, Pangasinan from 2021 to 2022. Hence, as the researchers proceed to the study, it aims to discern the vitality of Pangasinan in the Municipality of San Carlos City, record feasible solutions to aid this error, and shed light on the language endangerment as a basis for the recovery plan.

Furthermore, Mühlhäusler (2011) brings out the connection between language, culture, and biodiversity. The vitality of languages over time becomes part of environmental conditions. Language enables individuals to become more efficient environmental users. Hence, if people adapt themselves to certain areas, their language adjusts to particular settings also. If the language dies, the vast indigenous technical knowledge will disappear. As a result, traditional knowledge acquired over time throughout many world environments has expanded the bounds of science.

RESEARCH METHOD

2.1. The Language Situation of Pangasinan

In the cities of San Carlos and Dagupan, half a million people speak the Pangasinan language. Pangasinan is the most difficult Philippine language to learn. Those people who hold this opinion are the Ilocanos, Kapampangan, and Tagalog. These people find the language is unique and different from their language because it is confusing. This complexity, whether actual or imagined, is not brought up in conversation with all of the citizens of the country.

It is also claimed that attrition is increasing, both in terms of the number of speakers and the variety of communicative settings in which it is employed. Consequently, it is in a precarious situation. However, there is evidence that shows that native speakers of Pangasinan still find it to be the most effective way to express who they are and how they feel. Pangasinan does not have to be endangered if the language continues to serve these important communicative functions and the community realizes this. "Resistance to Filipino/Tagalog might be linked to regionalism," according to the article "More on National Language Month." However, it is doubtful that regionalism is the driving force behind speakers' desire to continue speaking their native dialect. The truth is that no second language can fulfill all of the complex communicative needs that people have for a language.

2.2. Changing Language Usage Trends among the Pangasinan Speakers

The Pangasinan language is at risk of extinction in San Carlos City. Immigration, urbanization, and the province's increasing population rates are all issues. (Anderson, 2017). Some Pangasinenses were purely Pangasinan and could not speak Ilocano. Pangasinenses are almost universally conversant in the indigenous language, which is quickly becoming the lingua franca. It is used in traditional song and dance competitions, marriages, indigenous healings, and house blessings. For some young individuals, Filipino is a far superior language to their native Pangasinan. As a result, Iloko and Filipino language communication tools are evident, with Pangasinan being the exclusive language of some.

San Carlos is the Pangasinan's heartland city, as mentioned by Fabregas (2012), who studied the use of Pangasinan, Filipino, and English in terms of employment. People of all professions, according to the survey, speak Pangasinan, English, Filipino, and a little bit of Iloko. However, several professionals and semi-professionals, such as doctors and lawyers, used English, Filipino, and Pangasinan in their respective work environments. Non-professionals, such as blue-collar workers, are likely to use Pangasinan and Filipino in their workplaces because they speak little English. Semi- and non-professionals utilized Pangasinan and Filipino in both official and informal settings. In casual situations, all groups utilized English. These studies support the relevance of language in both formal and informal interaction.

Furthermore, UNESCO (2017) asserts that casual discussions and social functions in Tagalog, Pangasinan, or Iloko are used due to strong ties to San Carlos City, where the Pangasinan language is dominant. Tagalog allows persons with a vague understanding of Pangasinan to communicate. People utilize their most inclusive language, even switching to English when required, as the prevailing attitude is courtesy.

2.3. Overview of the Philippines' Language Viability

Most of the areas in the Philippine language fall under and can be classified according to five major factors. These include (1) the fact that Filipinos have been ruled by various countries for a long period of time, (2) the fact that foreigners have taken over the settlements of ethnic communities, (3) changes in environmental and agricultural systems, (4) the fact that people are migrating both within and outside the country, and (5) the fact that national educational policies tend to make Filipinos homogenize. Ethnology lists 169 existing Philippine languages, Negritos speak 32 of them. (Gordon 2015). The Negrito population as a whole speaks endangered languages (Headland 2011). As seen in Table 1, almost 90% of Filipinos speak nine "major" languages. Industrializing, nationalizing, and globalizing influences are encroaching on all 160 lesser and mid-sized Philippine languages, as well as some "big" languages.

Table 1: Major Philippine languages, according to the 2010 Census

Language	Native Speaker (millions)	Percentage of Population
Tagalog	17	24%
Cebuano	15	21%
Ilocano	8	11%
Hiligaynon (3 dialects)	7	10%
Bicolano (5 dialects)	3.5	7%
Waray-Waray	2.4	4.6%
Kapampangan	1.9	3.7%
Pangasinan	1.1	2.3%
Maginadanao (2 dialects)	1	1.7%
Total	**56.9**	**87%**

Source: Gordon 2015

2.4. Language Strategies

According to Song (2018), language strategies are crucial because they help people improve their communication and efficiency. According to Anderson (2013), the term "strategies" is sometimes used to refer to the speakers' purposeful efforts to improve their speaking skills. This aligns with a series of sample definitions of language strategies as helpful practices that speakers utilize when they are having trouble understanding a language. Because of these points, it is clear that the point of adopting language methods is to improve people's ability to communicate and think.

2.5. Language Vitality Assessment

The speakers' attitude in San Carlos City described the effects based on how they assessed its vitality. There are a diverse range of factors that go into determining whether or not a language is endangered. Among these are the following: (1) the transmission of language from one generation to the next; (2) the actual number of speakers; (3) the percentage of individuals who utilize the language; (4) the currently available linguistic domains; (5) the media's response to new domains; and (6) the materials for teaching language proficiency. Governmental and institutional attitudes and policies, as well as community people's attitudes toward their languages, are used to assess language attitudes. The evaluation of documentation's urgency is the final assessment. Among six factors, the language transmitted and the attitudes of the community members are affected. It evaluates whether the language is passed on to succeeding generations. According to the principles of persistence and stability, a language is considered to be in a vulnerable state if it is no longer used.

Table 2. Criteria for the assessment of the intergenerational language transmission

Condensed language transmission between generations		
Safe	5	The language is utilized by people of all ages.
Stable but in danger	5-	People of all ages use the language in most contexts, with fragmented multigenerational transfer.
Unsafe	4	Many but not all children or families of a specific community speak use their language as their primary language.
Definitely endangered	3	The language is no longer taught to children at home as their mother tongue.
Severely endangered	2	Only grandparents and older generations speak the language; the parent

		generation may still understand it.
Critically endangered	1	The youngest people who speak the language are great-grandparents, and it is not used in everyday life.
Extinct	0	Nobody speaks or remembers the language.

As seen above, the Pangasinan language is at level 4, which is "unsafe" in terms of the degree of endangerment. It shows evidence, especially that most residents of San Carlos City prefer Filipino to be their first language. In some studies, some people preferred home languages even though most of them grew up in multilingual homes (Filipino, Pangasinan, English, and Ilocano). Rosario (2010) says that Filipino dominates the choice of the most preferred home language.

UNESCO grades the speakers' viewpoints according to their language. The equivalent grade below reflects how San Carlos City residents feel about their native tongue.

Table 3 Criteria for the assessment of the community members' attitudes toward their language

Grade	Community members' attitudes toward their own language.
5	All members hold their language in high regard and desire its promotion.
4	Most members support linguistic preservation.
3	Many members care about keeping languages alive, while others don't care or may even want languages to die out.
2	Some members care about keeping languages alive, while others don't care or may even want languages to die out.
1	Only a few members care about keeping languages alive, while others don't care or may even want languages to die out.
0	Nobody cares if the language is endangered; everyone prefers to use the language that is dominant.

Based on the factor, the attitudes presented before are translated into two grades. The attitudes of the parents interviewed would have a grade of 4, while the attitudes of their children, who are of a younger generation, would fall under grade 2. In terms of parents' generation view, the language symbolizes group identity. On the other hand, the younger generation's perception is a crucial factor for more economic development and advancement. Claiming the Pangasinan language is unsafe because of different generations' perceptions, especially from its speakers, is grounded on reality. These individuals and groups should acknowledge that the Pangasinan language is revitalized.

2.6 Revitalization of the Pangasinan Language

The revitalization of the Pangasinan language was started in 2000 by an organization called Ulupan na Pansiansiay Salitan Pangasinan (UPSP). This organization published Pangasinan dictionaries and a collection of Pangasinan folk literature. It also has a quarterly magazine (Balon Silew) which is being distributed in some cities and municipalities in the province. It also aims to develop Pangasinan as a literary language. It has a collection of short stories called "saray antikey ya tongtong," a novelette called "nobelita," poems called "saray anlong", and essays called "saray salaysay." It also has a full-length movie called "Pangasinan."

This attempt to develop Pangasinan as a language for film and literature elevates the status of the language, mainly because it is perceived as being used only at home and in the local community. Creating more works of literature in the language may also prove helpful in the process of creating learning materials for the language. The teachers need not worry much about the available materials written in Pangasinan which can be used in their teaching.

It is also worth noting that the local government of Pangasinan is doing its part in revitalizing the Pangasinan language. The former governor, Amado Espino, Jr., believes that "Pangasinan is a dying language, and to avoid it going extinct, every Pangasinense, young and old, should do something about it" (Manila Bulletin Publishing Corporation, 2010). The governor is serious about helping to preserve and revitalize the history, culture, and language of Pangasinan. In fact, at the outset of his term in 2007, he directed all department heads to use Pangasinan during their meetings. All provincial government

employees must also use the language in their offices and all programs. The government also shows support for the projects of UPSP by providing financial assistance for their publications. A Pangasinan Writers' Conference is also set up to encourage more Pangasinan writers and develop more written materials in the language (Elduayan, 2011, personal interview). They go through the process on derived variables (to deal with absolute values and insufficient data).

CONCLUSION AND IMPLICATION

Language vitality develops through a progression of interrelated organizational roles. Since language can be formal (as defined by organizational conditions and relationships) or informative (as described by simple social interaction patterns), every school in San Carlos City has additional learning on sustaining the educational system and high quality of education, which contributed to the study's success. With this, people learn how to develop themselves and become productive individuals, which could contribute a lot to their future lives. Someday, the city of San Carlos City can use the plan to save languages that are in danger of dying out.

As the development of technology continues, its effects also continue for every person. Understanding the vitality and risk of a single city or town is critical. People are confronted with this endangerment. As countries, regions, and cities navigate this transition, the top priorities must be protecting and re-creating language recovery plans. It should take bold, quick steps to boost economic activity and develop good strategies for each at-risk economy and individual. Since this is new to all, we need to move to the re-opening phase, which strikes a balance between allowing an individual to have reasonable satisfaction and knowledge of language's vitality. They will also need to find the right balance and sequencing of health, the educational system, and social policy interventions to produce sustainable outcomes and implement and sustain policy interventions. To make each country and the city's education system fairer and more equal, there is also a need to take specific steps in dealing with growing inequality and the different effects of language loss.

This research comes down to the significance of the findings. It implies contributing to the children, parents, teachers, and future researchers' ability to cope with this language endangerment. The study's aim to assess the Pangasinan language's vitality in San Carlos City is a foundation for a language recovery plan. The main goal of this research is to find out how the recovery plans for San Carlos City affect the people who live there. Even when the social impact of language endangerment is acknowledged, a massive divide or divergence is visible. The presented information and its benefits to everyone are pretty different. In some aspects, the connections between people and language regarding its influences are evident as the modern world grows and adapts to other transitions.

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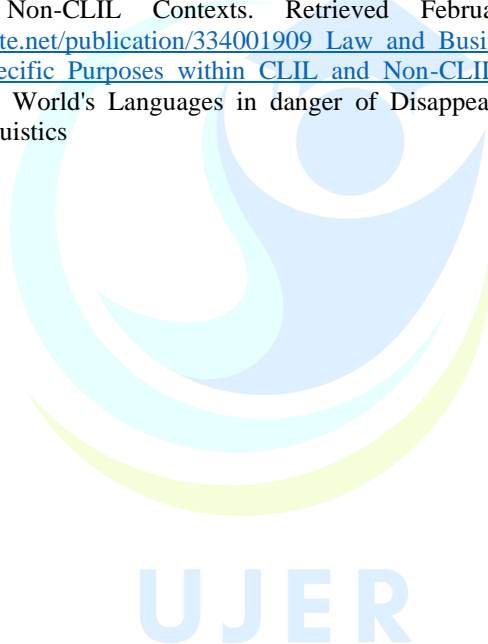
When the Tide is not Turning: Exploring the Mental Health of a Select Group of Filipino Youth Living with Human Immunodeficiency Virus (YLHIV)

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ABSTRACT. Literature from worldwide revealed that poor mental health is evident among youths living with HIV (YLHIV). However, literature exploring their mental health in the Philippines is limited despite the alarming increase of HIV cases among young people. Hence, this descriptive phenomenological study purported to characterize the mental health of a select group of Filipino YLHIV. In-depth interviews with ten fully consented male participants aged 18-30 were conducted. Field texts were subjected to Collaizi's (1978) seven-step data analysis method. Interestingly, the *Mental Health Tower of Youth Living with HIV* emerged after thoroughly analyzing the data. This model typifies the mental health of YLHIV, which operates in an environment where both internal and external pressures make them experience (a) disruptive thoughts, (b) depressive mood, and (c) deteriorative behavior. The study has vividly described the instability of the YLHIV's mental health. Therefore, it is vital to develop a mental health program specifically designed for youth living with HIV.

1.0. Introduction

In 2016 the World Health Organization (WHO) reported that the Human Immunodeficiency Virus (HIV) continues to be a major public health concern affecting approximately 36.7 million people worldwide, 1.8 million of whom were newly diagnosed (WHO, 2018). Although the rate of the disease varies between countries and regions, it remains most prevalent in Sub-Saharan Africa, which affects one in every 25 adults, almost two-thirds of the worldwide HIV population. Conversely, other parts of the world, like the United States of America, reported a 10% decline in HIV infection from 2010-2014 due to the HIV prevention efforts of the government. However, those men having sex with men (MSM) was the sole group that did not decline (Centers for Disease Control and Prevention [CDC], 2015). In Europe, despite the public health effort of the government, the significant transmission of the virus continued affecting 29, 444 people in 2016 (European Centre for Disease Control and Prevention, 2017).

Similarly, the Western Pacific region, including the Philippines, reported an increase in HIV infection from 1.25 million in 2010 to 1.48 million in 2016. For several years, the Philippines had a minimal increase in HIV infections. However, in recent years, cases of people with this disease amplified dramatically. The Philippines has been tagged as one of the countries with fast-growing HIV cases worldwide, with a more than 50% increase from approximately 4,300 cases in 2010 to an alarming 10,500 cases in 2016 (WHO, 2018).

Globally, it is estimated that 30% of all new HIV cases occur among young people aged 15-25. Alarmingly, the Philippines is one of the ten countries in Asia and the Pacific with increasing rates of HIV among young people (United Nations International Children's Emergency Fund [UNICEF], 2015). Consistent with the report of the Philippine government thru the Department of Health (DOH), the percentage of HIV cases among Filipino youth aged 15-24 years increased from 25% in 2006-2010 to 29% in 2011-2017. In April 2022 alone, the HIV/AIDS and ART Registry of the Philippines (HARP) recorded 1,198 new HIV cases, 29% of which occurred among youth aged 15-24 years (DOH, 2022).

According to Bekker et al. (2015), the prevalence of HIV among youth is due to many transitions (e.g., social, psychological, structural, and developments) they encounter during this period of their lifespan. Consequently, YLHIV is at high risk of experiencing mental health problems, as supported by several western studies. For example, a meta-analysis of 38 articles, mostly from the United States and Europe, indicated that youth living with HIV experienced behavioral and emotional problems higher than other high-risk groups (Mellins & Malee, 2013). The latter findings support the cross-sectional analysis of 1706 youth living with HIV, revealing that 727 (42.6%) participants reported clinical symptoms. Only 39.7% of 727 reported mental health care and 21.9% are taking medications for emotional concerns (Whitely et al., 2014). In another cross-sectional study conducted in Jamaica, youth with HIV ages 15- 25 years were found to have high rates of anxiety (71%), stress (64%), and depression (63%). The participants also reported smoking cigarettes (16.1%), drinking alcohol (11.4%), and use of marijuana (8%) (Brown & Morgan, 2013). In Rwanda, a cross-sectional analysis of 193 youth living with HIV revealed that 26% had depressive symptoms, and 12% had attempted suicide (Smith Fawzi et al., 2016). Another study in America found that 44% of youth with HIV aged 16-21 years were diagnosed with depression a year after HIV diagnosis (Pao et al., 2000).

Qualitative studies also revealed that people living with HIV are prone to experience mental health problems, like the study of Jena (2014) in South Africa depicting those adolescents with HIV showed sadness, anxiety, fear, and pain in their lived experiences. Particularly, they were anxious regarding death due to their illness and reported fear of rejection, stigma, and discrimination (Jena, 2014; MacQueen, 2017). Similarly, the Aboriginal people living with HIV in Canada reported feelings of depression. They responded to their medical condition with shock, disbelief, and often anger (Cain et al., 2013). Meanwhile, the explorative study of Landry (2014) indicated that youth living with HIV reported experiences of isolation, depression, and thoughts of suicide. This suicidal tendency is triggered by the burden accompanying the long-lasting implication of being HIV positive (Kalichman et al., 2000). Further, stigma, discrimination, low self-esteem, and lack of social support are other factors directly associated with suicidal thoughts and behaviors of people living with HIV (Casale et al., 2019; Wang et al., 2018). The study participants, being youth, may account for their vulnerability to being persuaded by a misconception about the said illness. Also, youths today tend to access information from the internet without checking its veracity. This may result in misleading information about their medical condition. Another phenomenological study in Africa, specifically in Botswana, showed that HIV-AIDS diagnosis resulted in internal (self) and external stigmatization that impacted the lives of people with HIV. The progression of the disease and stigmatization led to emotional disturbance, relationship problems, poverty, dependence, and concerns about their family members (Setlhare et al., 2015).

The foregoing discussions of foreign literature established that mental health problems are evident among youth living with HIV. This aspect of YLHIV's health is critical and often neglected (Vreeman et al., 2017) and calls for more empirical investigation adopting various theoretical and methodological lenses. Despite the alarming increase of HIV cases among Filipino youth in the Philippines, there is a lack of literature exploring their mental health status. Hence, this phenomenological study was conducted to characterize the mental health of a select group of Filipino YLHIV.

2.0. Methodology

Research design. In recent years, there has been a growing interest in the use of phenomenology to explore the experiences of people who have HIV and mental health issues (Sharma & Babu, 2017; Zhou, 2010; Cain et al., 2013; Jena, 2014; Landry, 2014; McLeish, 2015). The current study utilized the aforementioned design, particularly the descriptive phenomenology, which is appropriate for understanding the subjective experience of a select group of Filipino YLHIV. According to Lopez and Willis (2004), descriptive phenomenology aims to describe the universal essence of an experience as it is lived by the participants. Hence, it represents the true nature of the phenomenon being studied.

Participants. The ten male participants of the current study were recruited via Pinoy Plus Advocacy Pilipinas, Inc., a pioneer support group dedicated to the welfare of PLHIV in the Philippines. They were identified from the pool of potential participants of the study. The participants were purposively chosen based on the following inclusion criteria: (a) diagnosed with HIV; (b) 18- 30 years old, and (c) Filipino citizen.

The participants were diagnosed with HIV from the year 2007-2018. Regarding their employment, four (4) of them are currently studying, three were employed, and the other three (3) were

unemployed. One of those unemployed participants has a pending case against his employer for forcing him to resign because of his HIV status. Of the 10 participants, two worked as sex workers and were strongly convinced that they had acquired the virus from their customers. All of them signed informed consent and were given meal and transportation allowance for voluntarily participating in the study.

Data Collection procedure. Prior to the conduct of this qualitative inquiry, ethical clearance from the local ethics committee was secured. Permission from the study site- Pinoy Plus Advocacy Pilipinas, Inc., was also sought. Preliminarily, informed consent was secured from the participants, including the consent to record the interviews; participation was stressed to be voluntary without remuneration and that they are free to discontinue during the interviews without any bias.

The researchers adopted the interview protocol of Seidman (2006), which consists of three phases, namely: (a) rapport-building phase, (b) exploratory phase, and (c) clarificatory phase. In the first phase, the researchers established rapport by displaying friendly gestures to the participants. Then, in the exploratory phase, a semi-structured interview guide was employed to uncover the lived experiences of the youth living with HIV in relation to mental health. Lastly, the researchers raised clarifications during the clarificatory phase to better capture the participants' responses.

Mode of Data Analysis. The recorded interviews were individually transcribed and converted into field texts. Since the language used by the participants is Filipino, their responses were properly translated into English and interpreted to preserve their original meaning. The translation was accomplished with the help of an English Editor with a Ph.D. degree in Language Education and a Master of Arts in Teaching English Language. Then, the researchers used Colaizzi's (1978) seven-step method to analyze the data. The process included: (1) familiarizing with the field texts by reading and reading them; (2) pulling out significant statements from the field texts; (3) formulating meaning units from the significant statement; (4) categorizing the meaning units into clusters of themes; (5) developing a full and inclusive description of the phenomenon by incorporating all the themes produced at step 4; (6) condensing the exhaustive description down to a short, dense statement that captures just those aspects deemed to be essential to the structure of the phenomenon; and (7) returned the fundamental structure statement to all participants.

3.0. Results

This qualitative study yielded interesting findings about the mental health of youth living with HIV. Three themes collectively described the mental health of YLHIV, namely (1) disruptive thoughts, (2) depressive moods, and (3) deteriorative behaviors.

Disruptive thoughts

Learning that they were infected with HIV was very disturbing for the participants. They experience disturbing or troubling thoughts such as irrational, anxious, and suicidal thoughts.

The participants were besieged by several irrational thoughts, such as overestimation of danger and illogical interpretation of their diagnosis. Particularly, they are terrified by the thoughts of dying at a young age and are worried about their future. As verbalized by the participants:

> "That time, I keep on thinking that I was dying, that there is no treatment for HIV. I was worried for my family because I am the breadwinner" (Participant 2, personal communication, January 23, 2020).

> "I thought I was dying. I was thinking what will happen to the dreams I have for my family. Moreover, I was bothered on how to tell my parents about my health condition" (Participant 10, personal communication, January 25, 2020).

Besides entertaining irrational thoughts, the participants were likewise disturbed by anxious thoughts as manifested by their fear of being rejected and discriminated against by family, friends, romantic partners, and the workplace. As expressed by the participants:

> "How can I work if I have this illness? They might trace it through medical examination" (Participant 1, personal communication, January 23, 2020).

> "I am afraid to form romantic relationship because I might transmit the virus, I don't want my partner to get sick because of me" (Participant 3, personal communication, January 23, 2020).

"My fear was rejection especially if it is from my own family" (Participant 10, personal communication, January 25, 2020).

Cognizant of their present health condition, the participants were also bombarded with suicidal thoughts, as evidenced by their death wish, thinking of killing themselves, and thoughts that other people are better off without them. As expressed, "Sometimes, I was thinking that instead of dying from the opportunistic infections of this virus, I wish I would not wake up the next day" (Participant 1, personal communication, January 23, 2020). Another participant verbalized, "There was a time that I thought of hanging myself to die. After knowing that I am HIV+, I seldom go to work, most of the time I locked myself in the room, I thought of slitting my wrist, and taking all my medicine at the same time" (Participant 4, personal communication, January 24, 2020).

The irrational and anxious thoughts of the participants were entrenched in certain triggers in their environment, particularly the lack of available information about HIV. They articulated that they have limited information about the illness and are mostly misconceptions about its transmission, treatment, and prevention. As expressed,

"During that time, I thought HIV and AIDS are the same. So for me, it is like a death sentence" (Participant 3, personal communication, January 23, 2020). This misconception elicited disturbing thoughts of dying at a young age and worrying about their future. Another participant verbalized, "I thought I cannot find a job anymore. I was so hesitant to apply for a job because they might discover that I am HIV+" (Participant 2, personal communication, January 23, 2020).

This wrong notion triggered the fear of being rejected and discriminated against in the workplace. Meanwhile, the suicidal thoughts of the participants are primarily triggered by an internal factor, internalized stigma- the internalization of negative beliefs, feelings, and attitudes about PLHIV. As verbalized,

"I would rather die than to be associated with this illness for a long time. I felt so gross/dirty. I am a mess" (Participant 10, personal communication, January 25, 2020).

Summarily, the mental health condition of a select group of Filipino youth living with HIV is typified by certain disruptions which make them entertain irrational, anxious, and suicidal thoughts. These thoughts are provoked by internal and external factors, particularly internalized stigma and lack of available information.

Depressive mood

Accommodating the fact that they were infected by HIV was not easy for the participants. They were blasted with the emotional turmoil intruding on their daily activities at home, school, and even the workplace. Particularly, the participants articulated their experiences of emotional distress, persistent feelings of sadness, and hopelessness.

The participants' emotional distress is manifested in their experience of a deep state of agony and disbelief. As verbalized by the participants:

"I felt like I was going crazy that time, some of my friends told me not to stress myself, but it stresses me a lot. From time to time, it sinks in. I really don't know what to do" (Participant 1, personal communication, January 23, 2020).

"It seems that I was blown away when they told me about the result. I even tried to ask for a second opinion, I can't believe it. Gosh, I was extremely terrified that time. I'm sure, my parents will kill me, I uttered" (Participant 2, personal communication, January 23, 2020).

Other participants experienced a persistent feeling of sadness. They verbalized feelings of aloneness and loneliness, especially the undisclosed YLHIV. Generally, they feel miserable and unhappy instigated by their health condition. The following are some of the verbalizations of the participants:

"After knowing the HIV test result, I kept it for a long time. When I was with my parent, I pretend to be OK, but in reality, I felt so sad most of the time" (Participant 7, personal communication, January 24, 2020).

"I felt lonely; I have difficulty coping up with loneliness. I can't do the things that I previously enjoyed; I lose my interest in almost everything" (Participant 6, personal communication, January 24, 2020).

Likewise, the participants conveyed their experience of hopelessness as they struggled with HIV. They are uncertain about their future and express pessimism about life in general. As expressed,

"It is like, I lose hope in life, there was a time that I applied for a job and got hired, but I backed out because of the medical exam" (Participant 1, personal communication, January 23, 2020).

The indices of depressive mood such as emotional distress, persistent feeling of sadness, and hopelessness were prompted by discrimination. One participant shared that he experienced discrimination from his own family. He said,

"After telling my parents about it, I felt they avoided using the utensils we used to share like drinking glass, spoon, and fork. I even shared a room with my brother before, but now they asked my brother to move out of my room. I felt very sad, but I have to accept it. Maybe that is the consequence of having this illness" (Participant 1, personal communication, January 23, 2020).

Aside from their family members, the participants also received discrimination from their friends and workplace. As articulated:

"After I disclosed my status with my immediate supervisor, I noticed that most of my workmates kept distance from me. Almost every day, I was crying discreetly in the office because of the way they treated me" (Participant 2, personal communication, January 23, 2020).

Another factor that incited the depressive mood of the participants is an internal trigger, non-disclosure. They have difficulty disclosing their health condition due to the stigma associated with the illness. Since they are undisclosed, they feel they are brawl with the illness alone. As shared by one of the participants,

"Actually, right now my pressing concern is on how to tell my parent about it. Not even one from my family knows my status. I feel so empty and alone. Alone battling with this condition" (Participant 2, personal communication, January 23, 2020).

Another participant uttered,

"In my case, I am afraid to disclose because my family might throw me away. They will also discover the obscenity I have done in my life. I do not know when to tell them. I am really struggling" (Participant 5, personal communication, January 24, 2020).

Lack of social support is another factor that fueled the emotional struggles of the participants. They mentioned that it is more emotionally painful when they do not get support from their significant others. They badly wanted to feel the comfort of their family, friends, and other people significant to their lives. As verbalized by the participants:

"I feel so lonely, because until now I am fighting this illness alone. I disappointed my family, so it's very challenging to get support from them" (Participant 5, personal communication, January 24, 2020).

"It's very painful that I want to hug my friends as I usually do when I have problems. But right now, it seems that gradually they are moving away from me" (Participant 1, personal communication, 2020).

Collectively, the mental health of the selected Filipino YLHIV is characterized by depressive mood, which is manifested by emotional distress, persistent feelings of sadness, and hopelessness. These indices of depressive mood are aggravated by personal and environmental factors such as non-disclosure, discrimination, and lack of social support.

Deteriorative behavior

Besides disruptive thoughts and depressive moods, the participants also struggled with deteriorative behavior that impairs their physical and social well-being, such as loss of interest, self-neglect, and social withdrawal.

After knowing their HIV status, they started to engage in several deteriorative behaviors like losing interest. Particularly, the participants started to lose interest in their work, refused to go to school, and disengaged themselves with activities they previously enjoyed. As uttered by the participants:

> "To the point that almost two months, I did not go to work. I lose my willingness to work" (Participant 5, personal communication, January 24, 2020).

> "Before, I love going to the gym. I usually spend an hour or two for twice or three times a week. But now, I don't go to gym anymore" (Participant 6, personal communication, January 24, 2020).

> "All I want is to stay home, I don't want to go to school. I don't even play with my pets anymore that I used to enjoy doing" (Participant 10, personal communication, January 25, 2020).

Moreover, the participants experienced self-neglect while living their lives with chronic illness. They disregard the regular intake of food and eat on an irregular schedule. As expressed,

> "What happened to me was, I missed some meals in a day. There was a time that I ate for one meal a day. I had difficulty getting up to do the usual" (Participant 9, personal communication, January 25, 2020).

As a form of avoidant coping mechanism, some participants were even engrossed in dangerous vices like substance use. As expressed,

> "The time that I learned my HIV diagnosis, I engaged in inappropriate behavior like smoking cigarettes, drinking alcoholic beverages, I even tried taking marijuana. I felt so devastated that is why I did not care about my health anymore" (Participant 1, personal communication, 2020).

For people living with HIV, doing the usual social interactions was challenging. The participants reported that they experienced withdrawal from other people, such as their friends and workmates. As expressed,

> "Actually, I started to avoid mingling with my friends. I am afraid that every time I was with them, they might discover my health condition" (Participant 10, personal communication, January 25, 2020).

> "I tend to isolate myself from my workmates, although I only disclosed it with my immediate supervisor. I felt that they know about my condition" (Participant 8, personal communication, January 25, 2020).

Some participants also avoid socializing activities like playing sports, as verbalized,

> "I used to play badminton with my neighbors, but I choose to avoid playing with them" (Participant 1, personal communication, 2020).

Notably, personal and environmental factors contribute to the deteriorative behavior of youth living with HIV. For instance, their loss of interest and self-neglect are triggered by internalized stigma, specifically the thought of dying young. This negative notion about the illness fueled their unwillingness to perform their usual task. Meanwhile, engaging in dangerous vices is entrenched in denial of HIV status. They refuse to accept their diagnosis; hence, they engage in avoidant coping mechanisms. As uttered,

"During that time, it seems that I escaped from reality, after learning my HIV status, my coping was to drink alcohol and smoke cigarettes" (Participant 2, personal communication, 2020).

Further, the participants' experience of discrimination from family and friends provoked social withdrawal. They tend to detach themselves from social activities because they are repudiated by their own family. As stated,

"I do not want to hang out with my friends anymore. I feel that they will just reject me like what my family did" (Participant 6, personal communication, January 24, 2020).

By and large, deteriorative behavior, a characteristic of the mental health of a select group of Filipino youth living with HIV, is exhibited by loss of interest, self- neglect, and social withdrawal, which were shaped by internal and external factors such as internalized stigma, denial, and discrimination.

4.0. Discussion

After carefully analyzing the themes, this study allowed the emergence of an interesting model that typifies the mental health condition of the participants. Labeled as the *Mental Health Tower of Youth Living with HIV* (Fig.1), this model conceptualizes instability that permeates the thinking, feeling, and doing aspects of a young person suffering from this dreaded condition. Similar to a tower, YLHIV operates in an environment where both internal and external pressures make them entertain disruptive thoughts, depressive moods, and deteriorative behavior.
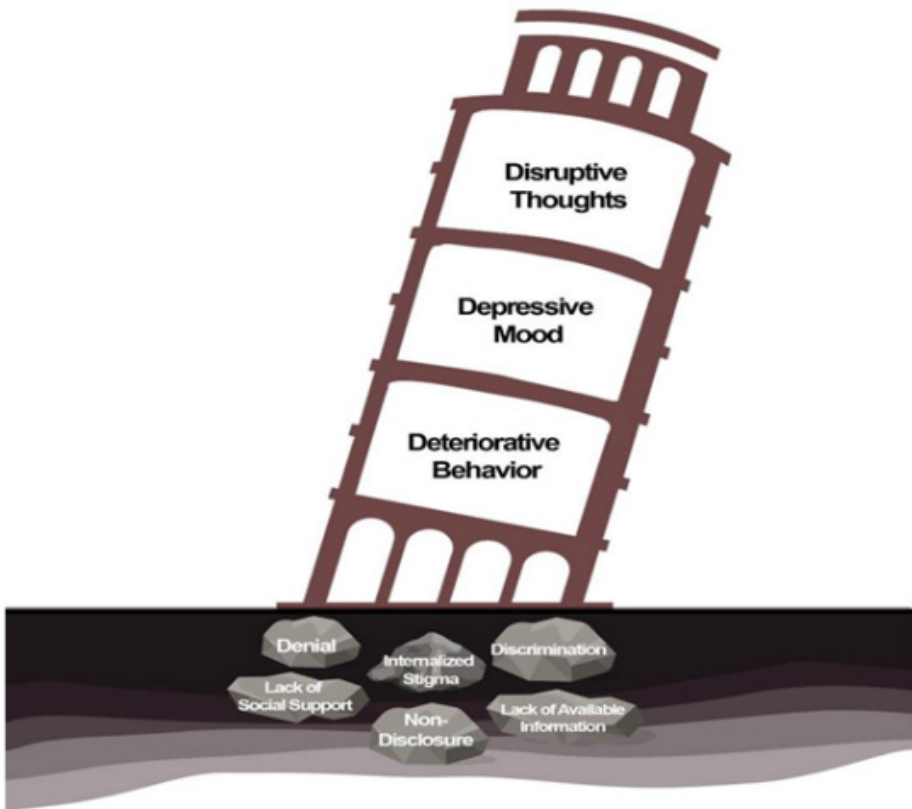

Figure 1. Mental Health Tower of Youth Living with HIV

The findings of the study indicated that YLHIV was bombarded with disruptive thoughts, depressive mood, and deteriorative behavior. This finding converged with the study of Jena (2014) in one wellness clinic in South Africa, indicating that adolescents living with HIV showed anxiety. They were anxious regarding death due to their illness and reported fear of rejection, stigma, and discrimination. Moreover, youth living with HIV were also bothered with suicidal thoughts such as thoughts of killing themselves and death wishes. According to Badiee et al. (2012), suicidal thoughts are common among people with HIV compared to the general population. Alarmingly, suicide rates have been reported at elevated levels in this population (Carrico, 2010).

The present study also revealed that young people infected by HIV faced emotional turmoil manifested by depressive symptoms such as distress, sadness, and hopelessness. This finds concurrence with the Joint United Nations Programme on HIV/AIDS (UNAIDS) (2018) that people with HIV have a higher risk of developing mental health conditions like depressive symptoms. The report supports the claim that medical conditions like HIV could be a major source of stress that negatively affects a person's mental health (US Department of Health and Human Services, 2020). Similarly, the study by Twesigye (2011) found that psychosocial issues experienced by PLHIV in Denmark include stress, frustration for those who could not live a normal life, and long-term sadness.

Besides disruptive thoughts and depressive mood, our study found that YLHIV displayed deteriorative behaviors that impair their physical and social well-being. This deteriorative behavior includes loss of interest, self-neglect, and social withdrawal. The loss of interest of people living with HIV is manifested by their unwillingness to perform usual activities (Andersen et al., 2015), like going to work and performing school tasks. YLHIV also display behaviors that harm their physical health, such as smoking cigarettes, drinking alcohol, and using marijuana (Brown & Morgan, 2013). These behaviors are coping mechanisms of YLHIV in dealing with psychological distress brought by their illness (Duko et al., 2019). Moreover, the deteriorative behaviors of the participants are manifestations of avoidance coping mechanisms. This mechanism is employed by people who are in denial of their medical conditions, that instead of facing reality, they choose to deny it by engaging in various inappropriate behaviors.

5.0. Conclusion

Using the phenomenological design, this study attempted to describe the mental health of a select group of Filipino youth living with HIV. Notably, the study afforded the development of a model identified as the Mental Health Tower of Youth Living with HIV, which typifies the mental health struggles of this group. Characteristically, their mental health is defined by disruptive thoughts, depressive moods, and depressive behaviors, which operate on the thinking, feeling, and doing levels, respectively. Such conditions of the participants were triggered by personal (denial, internalized stigma, and non-disclosure) and environmental factors (lack of available information, discrimination, and lack of social support).

This study advances the current literature about the mental health struggles of Filipino YLHIV by crafting a model which can serve as an interesting platform for understanding the lived experiences of youth living with HIV. The model shows the mental health conditions of YLHIV that need to be addressed. Further, it invites the need to consider personal and environmental factors in developing a mental health program specifically designed for this population. As illustrated, the model has vividly described the instability of the YLHIV's mental health and the factors affecting such conditions, which can serve as valuable inputs for policy-making bodies, government and non-government organizations, and support groups to consider mental health in their respective programs for YLHIV. Particularly, early assessment of the mental health status of YLHIV should be considered alongside the development and provision of a mental health program for this group.

6.0. Declaration of Conflicting Interest

7.0. Funding

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Regulation of the immune system by administering lactic acid bacteria to suppress the effects of aflatoxin B1 in mice (*Mus musculus*)

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ABSTRACT

Aflatoxin B1 (AFB1), which is a toxic compound produced by the filamentous fungus *Aspergillus* sp., is highly carcinogenic, damages vital organs, and may cause death. Prevention of aflatoxin poisoning through proper food storage and physical treatment is an added cost, thus there is a need to identify alternative methods including treatment with probiotic bacteria. We evaluated the effect of *Lactobacillus bulgaricus* on activating immune cells in mice exposed to Aflatoxin B1. The study used a post-test control design consisting of five treatment groups including a negative control, positive control, and T1, T2, and T3 groups treated with lactic acid bacteria at doses of 105 colony forming unit (CFU)/ml, 107 CFU/ml, and 109 CFU/ml, respectively, administered on days 7–28 and AFB1 at a dose of 0.2 mg/kg bw orally on days 15–28. The relative number of lymphocytes consisting of CD11c+transforming growth factor-beta (TGF-β)+, CD4+CD8+, and B220+IgG+, was measured using flow cytometry. The data were analyzed using a one-way analysis of variance test. The results indicated that *L. bulgaricus* bacteria increased the relative number of CD11c+TGF-β+, B220+IgG+, and CD4+CD8+ cells in mice exposed to the mycotoxin. *Lactobacillus bulgaricus* may function as an immunostimulator against mycotoxins by inducing the humoral and cellular immune response.

INTRODUCTION

Mycotoxins, such as aflatoxin B1 (AFB1), are secondary metabolites produced from filamentous fungi that are toxic, carcinogenic, and immunosuppressive to animals and humans. The estimated world production of feed contaminated with fungus is approximately 5%–10% (Oswald *et al*., 2005; Qian *et al*., 2012; Tomkova *et al*., 2001). Aflatoxin reportedly caused up to 100,000 turkey deaths following the consumption of contaminated peanut mushrooms. Broiler feed contaminated with a mycotoxin mixture (3.5 mg/kg diet as 79% of AFB1, 16% AFG1, 4% AFG2, and 1% AFB2)

can lead to weight loss and inflammation of the liver and kidneys. Aflatoxin B1 is a potent agent that causes immunosuppression in pigs at a dose of 140–280 μg/kg of feed by inhibiting DNA synthesis and immune cells, such as lymphocytes, but does not affect the humoral immune response (Perczak *et al*., 2018; Pierron *et al*., 2016).

Aflatoxin B1 suppresses the cellular immune system, in particular T lymphocytes, because of decreased complement production by the liver, phagocytosis by macrophages, and neutrophil activity (Perdigon *et al*., 2001). T lymphocytes affected by the toxin, as well as other lymphoid cells, such as cytotoxic T cells and natural killer cells, can promote tumor cell function directly or indirectly. The cellular components of the immune system produce cytokines for protection against tumor progression; however, cytokines may also play a role in the inflammation mechanism that causes damage to various organs (Ibrahim, 2013).

Methods such as heating, chemical treatment, or radiation can destroy and eliminate mycotoxin (Zain, 2011);

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however, the cost is prohibitive and it may impair the nutritional value of the feed. The decline in fungal growth may increase during feed production or storage (Munoz *et al.*, 2010). Lactic acid bacteria (LAB) may exhibit antifungal activity, especially *Lactobacillus* sp (Sadiq *et al.*, 2019). *Lactobacillus pentosus* and *Lactobacillus brevis* bacterial strains at a concentration of 3.5 × 108 colony forming unit (CFU)/ml can bind and release aflatoxin B1 by 17.4% and 34.7%, respectively, in liquid media as measured by ELISA (Hamidi *et al.*, 2013).

Microorganisms, such as *Saccharomyces cerevisiae* and LAB, may be used as biopreservatives in feeds, so it is possible to extend the shelf-life and increase food safety with microflora supplementation. Antimicrobial products of microorganisms also have potential as probiotics and may improve health (Tran *et al.*, 2020); however, there is limited data demonstrating the immunostimulating effects of LAB. Therefore, we evaluated the effect of LAB on the cellular and humoral immunity profile of mice.

MATERIAL AND METHODS

Preparation of animal

Male mice (*Mus musculus*), strain Balb/c aged 8–12 weeks (n = 25), with a body weight of 25–30 g, were obtained from Brawijaya University's bioscience laboratory and divided into five groups (five mice/group). The treatment groups consisted of a positive control (mice induced with AFB1 0.2 mg/kg bw on days 15–28), negative control (healthy mice), and treatment groups, T1, T2, and T3 in which mice were administered 1×10^5 CFU/ml, 1×10^7 CFU/ml, and 1×10^9 CFU/ml of LAB on days 7–28, respectively.

Bacterial suspension preparation

Lactobacillus bulgaricus (LAB) was obtained from the Microbiology Laboratory of the Faculty of Medicine, Universitas Brawijaya, and confirmed by biochemical tests and Gram staining. The bacteria were grown on de Man, Rogosa, and Sharpe (MRS) agar media at 37°C for 24 hours. A bacterial suspension was prepared using MRS broth media and the bacterial concentrations were measured using a spectrophotometer. The bacteria were diluted with phosphate buffer saline (PBS) for the experiments.

Aflatoxin B1 preparation

Aflatoxin B1 (Sigma Company catalog: A6636®) is potent with respect to acute toxicity, mutagenicity, and carcinogenicity, and one vial of AFB1 contained 5 mg of powder. AFB1 (0.2 mg/kg BW) was diluted in 1 ml PBS, pH 7.2 (Qian *et al.*, 2012).

Flow cytometry

The mice were sacrificed on day 29 by cervical dislocation. Spleens were harvested, placed into a petri dish containing sterile PBS, and crushed with the base of a syringe. 10 ml homogenates of the sample were prepared in a volume of 10 ml, centrifuged, and the pellets were resuspended in 1 ml PBS by pipetting (Ardiana and Rifa'i, 2015).

Then, 100 µl of the suspension was placed into a microtube; 500 µl of PBS was added; and the mixture was centrifuged at 2,500 rpm for 5 minutes at 4°C. Then, 50 µl of PE/Cy5 conjugated rat anti-mouse Cd11c, PECy5 conjugated rat anti-mouse transforming growth factor-beta (TGF-β), fluorescein isothiocyanate (FITC) conjugated rat anti-mouse CD4, PE conjugated rat anti-mouse CD8, FITC conjugated rat anti-mouse B220, and PECy5 conjugated rat anti-mouse IgG (Biolegend®, San Diego) were added to the cells and incubated for 20 minutes in 4°C (8). Afterward, 50 µl of cytofix (BD Biosciences Pharmingen) was added and incubated for 20 minutes in 4°C; wash perm solution (BioLegend®, USA) was added; and the mixture was centrifuged at 2,500 rpm at 10°C for 10 minutes. The cells were analyzed by flow cytometry (BD FACSCalibur, USA) using BD Cellquest ProTM software.

Statistical analysis

The data are presented as the relative number of immune cells (CD11c+TGFβ+, CD4+CD8+, and B220+IgG+). Data were analyzed statistically using one-way analysis of variance (ANOVA) with an error level of α = 0.05, followed by Tukey's test.

RESULTS

CD11c$^+$TGF-β$^+$ cells

The results indicated that supplementation of the mice with LAB induced by AFB1 increased the relative number of CD11c+ cells that produce TGFβ+ (Fig. 1). In the positive control group, the relative number of CD11c+ expressing molecule TGF-β+ (1.75%) was different, but no significance was observed when compared with the negative control (0.91%). All treatment groups (T1, T2, and T3) administered LAB at a 105–109 CFU/ml concentration showed an increase in the relative number of CD11c+TGF-β+ cells by 2.05% 3.14%, and 3.06%, respectively, when compared to the negative and positive controls, as shown in Figure 1.

CD4$^+$CD8$^+$ cells

The results showed that the supplementation with LAB in mice induced with AFB1 increased the relative number of CD4+CD8+ cells in all treatment groups, but the amount did not significantly differ and was similar to that of the negative control, as shown in Figure 2. The negative control was higher when compared with the positive control.

B220$^+$IgG$^+$ cells

The results showed significant differences in the relative number of B220+-expressing IgG+ cells in all the treatment groups following supplementation with LAB after induction with AFB1. The negative control group (24.56%) was significantly different from the positive control group (5.76%), which showed a relatively higher number of B220+IgG+ cells compared with the positive control. There was an increase in the relative number in all treatment groups (7.44%, 10.26%, and 7.67% for T1, T2, and T3, respectively), as shown in Figure 3.

DISCUSSION

Effect of LAB on the relative number of CD11c$^+$TGF-β$^+$ cells

The results indicated that the relative number of CD11c+ cells that expressed TGF-β was different, but there was no significant between the treatment groups; however, a 107 CFU/ml concentration of LAB increased the average of CD11c+TGF-β+
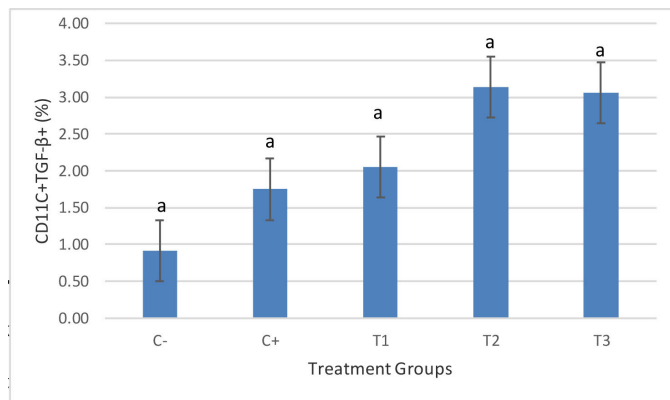
Figure 1. Flow cytometry analysis shows that giving LAB showed an increase in the relative number of CD11c+TGF-β+ cells ($p < 0.05$), but was not significantly different between treatments. There was an increase in the number when compared with the positive control. The highest average increase was seen in the T2 treatment. The treatment groups are: C- (healthy mice), C+ (mice induced with AFB1), and treatment groups, T1, T2, and T3 in which mice were administered with AFB1 and 1×10^5 CFU/ml, 1×10^7 CFU/ml, and 1×10^9 CFU/ml of LAB on days 7–28, respectively.
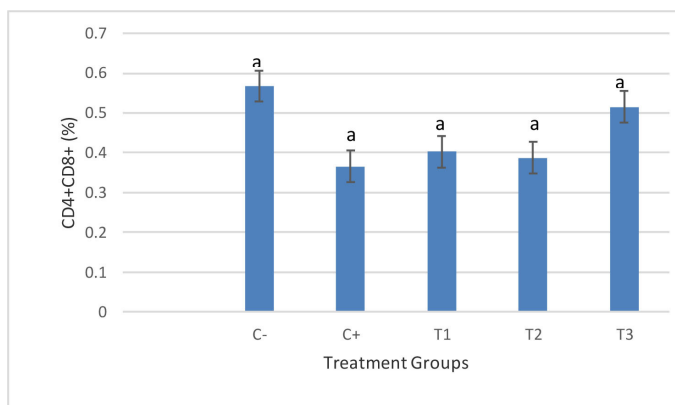

Figure 2. Treatment with LAB showed an increase in the relative number of CD4+CD8+ cells for all treatments, which did not differ significantly ($p < 0.05$). The treatment groups are: C- (healthy mice), C+ (mice induced with AFB1), and treatment groups, T1, T2, and T3 in which mice were administered with AFB1 and 1×10^5 CFU/ml, 1×10^7 CFU/ml, and 1×10^9 CFU/ml of LAB on days 7–28, respectively.

cells in all treatments. Mycotoxin exposure decreased the relative amount of CD11c+TGF-β+ cells. Mycotoxin AF1 altered or decreased anti-inflammatory cytokine synthesis by inhibiting macrophage or T cell activation. In fact, mycotoxin inhibits the synthesis and proliferation of T cells, which prevents macrophage cells from producing anti-inflammatory cytokines. Mycotoxin is cytotoxic to lymphocytes by interfering with lymphocyte receptors or lymphocyte function (Tran *et al.*, 2020). A study by Murugesan *et al.* (2015) revealed that mycotoxin was not immunogenic. It could not induce an immune response to pathogens, but interfered with mitogen-activated protein kinase signaling to modulate cell growth, apoptosis, or the immune response. This could expose an individual to a high risk of infection.

      Dendritic cells (DC) and CD11c markers are antigen-presenting cells (APCs) that are regulated specifically and nonspecifically by immune cells found in the lamina propria of the small intestine and gut-associated lymphoid tissues, such as
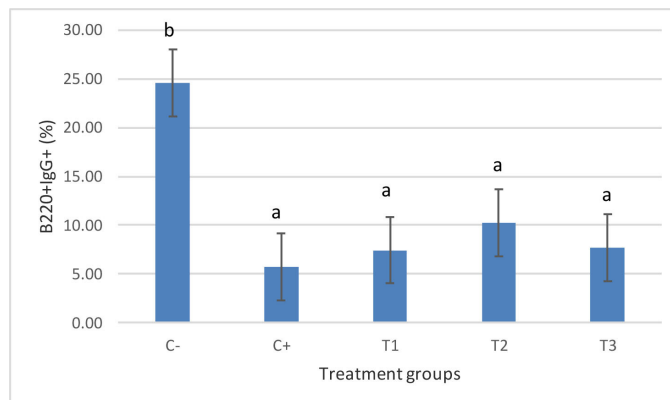

Figure 3. Treatment with LAB showed an increase in the relative number of CD4+CD8+ cells for all treatments, which did not differ significantly ($p < 0.05$). The treatment groups are: C- (healthy mice), C+ (mice induced with AFB1), and treatment groups, T1, T2, and T3 in which mice were administered with AFB1 and 1×10^5 CFU/ml, 1×10^7 CFU/ml, and 1×10^9 CFU/ml of LAB on days 7–28, respectively.

the Peyer's patches. Most dendritic cells (DCs) are present in an immature condition and are less immunogenic because of the low expression of MHC costimulators. Contact with pathogen-associated molecular patterns (PAMPs) or other signals induces the pattern recognition receptor (PRR) signal and activates the NF-κB pathway, resulting in maturation and activation of DC cells (Wells, 2011). Mature DCs may then express high MHC levels, costimulatory molecules, and cytokines which attenuate APC activation and differentiation of T cells to cause inflammation (Mohamadzadeh *et al.*, 2005). DCs exposed to AFB1 cannot respond correctly to any invading microbes and fails to initiate antigen presentation to activated T cells that are susceptible to pathogenic agents (Mohammadi *et al.*, 2014).

      The anti-inflammatory cytokine, TGF-β, inhibits the proliferation of fibroblast epithelial cells, dendritic cells, and macrophages to produce inflammatory cytokines and controls cell growth through adhesion and extracellular matrix formation (Hussain *et al.*, 2018). Exposure to mycotoxin could stimulate CD11c+ cells to activate inflammatory pathways that TGF-β may have suppressed. Oral exposure to LAB concentrations of 10⁵ CFU/ml could activate inflammatory cytokines, such as TGF-β, in DCs, which may inhibit CD11c+ cell activity. This was evident in the T1 and T2 group, prior to an observed decrease in the T3 group. According to Vindirelo and Alberto (2015), the higher the concentration of cell bacteria, the greater the binding capacity of AFB1 in liquid media *in vitro*. The concentration of bacteria that can bind AFB1 was 10¹⁰ CFU/ml for *L. rhamnosus* GG, *L. casei Shirota*, *Propionibacterium freudenreichii* ssp. *shermanii* JS, and *Escherichia coli*. Probiotics have an immunomodulatory effect on the release of cytokines, interleukins, tumor necrosis factor, transforming growth factor, and chemokines from immune cells that play a role in the innate and adaptive immune systems. LAB may interact with enterocytes and DCs, Th1/Th2 cytokines, or T reg cells in the intestine to stimulate the adaptive immune response into a proinflammatory or anti-inflammatory action (Azad *et al.*, 2018; Mohamadzadeh *et al.*, 2005).

      Mycotoxin AFB1 exerts toxicity because it is readily absorbed by the intestine and rapidly binds to serum protein. AFB1 is

genotoxic and immunogenic in animals (Zimmermann *et al.*, 2014). Mycotoxin can activate the microbial intestine, and mycotoxin adsorption–desorption is highly dependent on the intestinal environment and digestive enzymes. The LAB, *L. rhamnosus* RC007, stimulates pH, salts, enzymes, and peristalsis at each stage of AFB1 absorption in the digestive tract. Saliva secretion results in low adsorption and high AFB1 reabsorption. Gastric fluids and intestinal fluids do not decrease the AFB1 adsorption of LAB, rather they stimulate higher AFB1 adsorption (Sadiq *et al.*, 2019).

Metabolic LAB products inhibit aflatoxin biosynthesis. Heterofermented LAB, such as *L. bulgaricus*, produce a high level of acetic acid and propionic acid at acidic pH (Vinderola and Ritieni, 2015). The mechanism of action of LAB is to inactivate the fungal membrane and inhibit the absorption of amino acids and inactivated products from fungi, such as acetic acid (Perczak *et al.*, 2018). Bacteria and yeasts may neutralize mycotoxins in the body by reshuffling, transforming, and breaking them down into nontoxic metabolic products or inactive forms (Murugesan *et al.*, 2015). LAB binds mycotoxins to prevent further absorption by the intestine, which are then secreted with feces (Adilah *et al.*, 2018). LAB walls contain peptidoglycans that could interact with mutagenic compounds, including mycotoxins, through binding to reduce stability and bioavailability, and stimulate the secretion of anti-inflammatory cytokines by macrophages (Niderkorn *et al.*, 2009; Tabari *et al.*, 2018). LAB's capacity to bind mycotoxins would be optimal when the bacteria cells die due to a change in the cell surface. Live LABs require a long time to release mycotoxin from the body (Perczak *et al.*, 2018). Cell wall protein denaturation may function by creating a broader area to absorb mycotoxins (Tabari *et al.*, 2018). The proteins in the ribosomes, nucleus, chromosomes, cytosol, and cellular cytoskeleton components support the forming of the cell wall of bacteria in the exponential growth phase.

On the contrary, binding between the cell wall of LAB with mycotoxin takes place at the beginning of the end of the bacterial growth cycle (Moller *et al.*, 2021). AFB1 could bind to the cell wall β-d-glucan through hydrogen or van der Waals bonds. Absorption of AFB1 toxin depends on the availability of the number of binding sites on the surface of microbes, and the equilibrium constant [K (eq)], which could change as a result of genetic, physical, or chemical alterations (Sadiq *et al.*, 2019).

LAB may act as an anti-inflammatory agent, resulting in the reduction of oxidative stress from AFB1 exposure (Abbes *et al.*, 2016). Probiotics could also stimulate T cell subsets, humoral immune cells, epithelial-associated dendritic cells, and macrophages to increase anti-inflammatory cytokine products Braat *et al.*, 2004. The entry of LABs into the body may increase the capacity and phagocytic receptors of leukocyte cells, especially complement receptor 3 (CR3), for bluffing respiratory bursts (Bravo *et al.*, 2019).

Effect of LAB on the relative number of CD4⁺/CD8⁺ cells

Our results showed that the administration of LAB (*L. bulgaricus*) had an effect on the relative number of CD4+/CD8+ immunocompetent cells in mice induced with aflatoxin B1 in the treatment groups ($p > 0.05$) based on a Kruskal–Wallis test. The negative control group had a higher relative number of CD4+/CD8+ T cells than the positive group. This result is consistent with that of Qian *et al.* (2012), in which the administration of AFB1 to mice orally for 24 hours reduced CD3 T cells in the intestinal mucosa.

AFB1 caused a decrease in the cellular immune response to the specific dose and duration treatments (Zimmermann *et al.*, 2014). A low dose of mycotoxin could induce an inflammatory response if activated by enzymes, such as inflammatory inhibitors (Hussain *et al.*, 2018). Mycotoxin AFB1 may undergo systemic hydrolysis and further activate metabolism. Phase metabolism includes conjugation with glucuronic acid and sulfate by the whole-cell biotransformation system during immune cell communication (Tran *et al.*, 2020).

High LAB concentrations could increase naive T lymphocyte activation and proliferation as well as memory T cells (Wells *et al.*, 2011). Upon entering the body, an antigen is presented by DCs in the digestive tract mucosa (CD11c). Histocompatibility complex class II molecules combined with the expression of costimulatory molecules and cytokines (Gaudinoand Kumar, 2019) and activation of T lymphocytes. As a cellular defense, T cells may differentiate into a subset of T1 that activates macrophages. Macrophages and APCs induce T cells to secrete inflammatory cytokines that cause tissue damage (Mohamadzadeh *et al.*, 2005). The T1, T2, and T3 groups had a higher relative amount of CD4+/CD8+ T cells compared with the positive control group is shown in Figure 2.

LAB may act as an antifungal agent because it contains metabolites, such as organic acids, carboxylic acids, phenolic acids, cyclic dipeptides, hydrogen peroxide, and compounds that inhibit sporulation, which may decrease mycotoxin production (Sadiq *et al.*, 2019). LAB at concentrations of 105 CFU/ml could activate T lymphocyte cells in all groups compared with the positive control group. These results were consistent with that reported by Tsai *et al.* (2012) in which LAB activates the cellular adaptive immune response.

THE EFFECT OF LAB ON THE RELATIVE NUMBER OF B220⁺IGG⁺ CELLS

Our results showed that B220⁺ cells expressing IgG in the negative control group was higher compared with the positive group, whereas it was not significantly different among all of the treatment groups. The average of B220 cells expressing IgG increased after LAB administration. Mycotoxin can reduce immunoglobulin production in chicken feed supplemented with AFB1 (Nazarizadeh and Pourreza, 2019). LAB stimulates the humoral immune response by increased circulating antibodies and levels of plaque-forming cells in the host when exposed to mycotoxin (Abbes *et al.*, 2015). LAB can absorb and eliminate mycotoxin to prevent intestinal absorption and reduce liver damage, which is a target of mycotoxin. Upon entering the host orally, mycotoxin stimulates the secretion of immunoglobulin A (IgA) in the digestive mucosa and antibody IgG in the circulation. IgG represents a secondary response to protect the body against foreign antigens (Chen and Tsai, 2011).

In the normal intestinal epithelium, microflora bacteria act as a barrier antigen. However, when epithelial cells are degraded by infectious and noninfectious substances, alterations in intestinal permeability and inflammation of the intestinal mucosa occur. The inflammatory response that occurs in the intestine activates IgG antibodies and causes translocation of the microflora bacteria (Paludan *et al.*, 2020).

LAB plays a role in the body to activate the immune response by inducing the formation of Secretory IgA (SIgA) and producing vitamins (Wold, 2001). Antibody SIgA is dominant in the

mucous membrane, which is the first defense immune system against a dangerous environment. SIgA antibodies play a role in neutralizing toxins, viruses, salivary exotoxins, and eliminating pathogenic microbes (Hayati *et al.*, 2018). *Lactobacillus* bacteria and other probiotics are commensal microorganisms that interact with the mucosa or the immune cells. LAB stimulates specific functions of the mucosal immune system and produces secretory IgA. The presence of receptors, such as Toll-like receptors, nucleotide oligomerization domain-like receptors, and C-type lectin receptors may stimulate *Lactobacillus*. *Lactobacillus* associates with microbe-associated molecular patterns to activate APC and modulate their function through the expression of surface receptors, secretion of cytokines and chemokines, and other nonspecific immune effector cells (Mohamadzadeh *et al.*, 2005). Our results indicate that there was an increase in the relative number of IgG+ cells resulting from LAB induction in mice exposed to mycotoxin. This is consistent with the results obtained by Tran *et al.* (2020) in which IgG levels in the serum of Balb/c mice increased when *Lactobacillus* was administered for 7 days (infected with *Salmonella typhimurium* bacteria). DCs play a role in the adaptive immune response. LAB stimulates DC cells to activate specific immune responses in the intestinal mucosa to maintain homeostasis, protect against pathogenic microbes, and maintain intestinal permeability (Mohamadzadeh *et al.*, 2005). LAB increases the cellular and nonspecific humoral immune response in mice exposed to mycotoxin AFB1.

CONCLUSION

L. bulgaricus bacteria exhibited a potent effect as an immunostimulator resulting from exposure to mycotoxin AFB1.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was approved by the ethics committee (certified no. 012-KEP-UB-2020) of Institut BioSains.

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COMPETING INTERESTS

The authors declare that there are no financial and nonfinancial conflicts of interest.

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All data generated and analyzed are included within this research article.

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AUTHORS' CONTRIBUTIONS

DQS obtained the funding; designed the study, analysis and interpretation of data; and was a major contributor in writing the manuscript. DQS, SM, and IAA analyzed the flow cytometer data, treated the animals, and collected the data. All authors read and approved the final manuscript.

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YOGURT FORTIFIED WITH PURPLE ROSELLE EXTRACT AS PREVENTION OF DIOXIN INTOXICATION BASED ON MALONDIALDEHYDE LEVELS AND HISTOPATHOLOGY OF RATS (*RATTUS NORVEGICUS*) KIDNEY

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ABSTRACT

Dioxin is one of the chemical compounds produced through the chemical industry's combustion process, can pollute the environment,and harms the health of living things. Exposure to dioxin that accumulates in the body can disrupt normal organ function, including the kidneys. This study aimed to determine the preventive effect of giving yogurt fortified with purple roselle extract on the conditions of dioxin intoxication based on the parameters of Malondialdehyde MDA levels and kidney histopathology. This study used 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), which has the highest toxic potential among other dioxins congeners. TCDD was diluted in corn oil. This study used white male rats (*Rattus norvegicus*), 30 animals were divided into 5 treatment groups (1) negative control without treatment, (2) positive control was given TCDD dose of 200 ng/kg b.wt./day, (3) P1 given TCDD 200 ng/kg b.wt./day and roselle yogurt concentration of 0.5% 1 ml, (4) P2 given TCDD 200 ng/kg b.wt./day and roselle yogurt 1% concentration 1 ml, (5) P3 were given TCDD 200 ng/kg b.wt./day and roselle yogurt with a concentration of 1.5% 1 ml. The treatment was given for 12 days, orally. The parameters gathered were MDA levels and kidney histopathological changes. MDA levels were analyzed quantitatively using ANOVA continued with the Tukey test for comparison of treatment (α = 5%). Histopathological changes were analyzed descriptively. This study concludes that yogurt fortification with purple rosella extract with a concentration of 0.5%, 1.0%, and 1.5% as prevention on dioxin intoxication has not been able to decrease MDA levels of rat kidney and to prevent the histopathological damage of kidney rats.

Introduction

Many activities caused environmental pollution. One of them is the combustion process of industrial waste and burning products containing chlorine. The combustion of waste has a negative effect because the compound created has a prolonged degradation rate, both in air, soil, and water. These waste compounds has long-term and short-term impacts on human, animal, and ecological health. According to Fiedler (2003) these dangerous industrial wastes are known as dioxins.

The World Health Organization data in 2012 states that dioxin levels are mostly found in eggs, poultry, milk, and fish. When dioxins enter the human or animal body, it will cause various disorders, including immune, nervous, endocrine, reproductive, and liver function changes. According to Indraningsih and Sani (2014) Trichloro dibenzo-p-dioxins (TCDDs) residues were found at a high level on beef meat in some areas in Indonesia. According to Susanti (2004), TCDD will accumulate in the tissues and have toxic effects that only appear after several years, starting with the binding of dioxins-AhR (Aryl Hydrocarbons Receptor), the chaperones dissociate, resulting in AhR translocating into the nucleus and dimerizing with ARNT (AhR nuclear translocator), leading to changes in gene transcription. Then inducing the expression of cytochrome enzymes P450 CYP-A1 and CYP-B1. These enzymes contribute to cellular reactive oxygen species (ROS). ROS formation contributes to cell damage and disease development. Exposure to dioxins shows an increase of ROS indicator in the organs of animal models, including the kidney (Sakin *et al.*, 2011). To prevent the overproduction of ROS, the body requires antioxidants.

Yogurt is a fermented milk product with high antioxidant content, involving microorganisms, namely, *Lactobacillus bulgaricus* and *Streptococcus thermopillus* bacteria. Antioxidants are available from natural ingredients, especially in spices, fruits, and vegetables. A study conducted by Suharto *et al.* (2016) found that the antioxidant activity of natural ingredients is found in plant extraction. One of the plants known to have high antioxidant activity is the purple roselle. Purple roselle (*Hibiscus sabdariffa L*) has the main component of anthocyanin pigments that form flavonoids as antioxidants (Nugroho *et al.*, 2018). According to Arviani *et al.* (2018). The levels of vitamin C in purple rosella were 241 mg/100 g higher than oranges (49 mg/100 g), star fruit (35 mg/100) and papaya (78 mg/100 g).

Fortification of purple rosella extract in yogurt has the organoleptic preference due to color and taste (Noviatri *et al.*, 2020), and is expected to have a preventive effect of reducing the number of free radicals due to exposure to dioxins. Hence, this study was conducted to determine whether fortified yogurt with purple roselle extract could increase antioxidant activity against dioxin exposure in terms of MDA levels and kidney histopathology.

Materials and Methods
Chemicals

Dioxin compound used was TCDD (Supelco 45899), cow's milk yogurt, purple roselle extract, yogurt starter

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(Yogourmet® LYO-SAN.INC) contains *L. bulgaricus*, *S. thermophilus*, and *L. acidophilus*, 10% phosphate buffered saline (PBS), paraffin block, corn oil, physiological NaCl, 2-Thiobarbituric acid (TBA), formaldehyde 10%, aquadest, and hematoxylin and eosin (HE) stain.

Yogurt fortification purple roselle extract

Dried roselle petals were ground until smooth until they became flour, then sieved using a sieve. The roselle powder was dissolved in warm water (ratio 20 g: 100 ml water). After that, the pasteurization was carried out at 63ºC - 65ºC for 30 minutes. After 30 minutes, the liquid and sediment were separated (Suharto *et al.,* 2016).

Yogurt starter was made by pasteurized 100 ml of cow's milk at a temperature of 72ºC for 15 minutes. Then, the cow's milk was cooled down to a temperature of 45ºC. After that, the yogurt starter was inoculated and homogenized. Then, it was incubated at 45ºC for 4 hours until it reached a pH of 4.4-4.5 (Mahdi *et al.,* 2016). The starter was inoculated as much as 3% of the volume of cow's milk to make cow's milk yogurt (F1) (Mahdi *et al.,* 2016). Plain yogurt homogenized using a blender and divided into 3 parts. Then the purple roselle extract was added with a concentration of 0.5%, 1%, and 1.5%. Analysis of nutrition value of yogurt fortified with purple roselle extract was done using proximate assay and antioxidant activity analyzed by DPPH modified Pinela *et al.* (2012) method.

Animals and experimental design

The study was approved by the University Institutional Animal Care and Use Committee. The animals used were rats (*Rattus norvegicus*) divided into five groups, with six (6) rats per group. Feed, and drinking water was given *ad libitum* for 7 days. Rats were housed under standard laboratory conditions (room temperature 25°C - 26°C, 12 h light-dark cycle). 2,3,7,8-Tetrachlorinedibenzo-p-dioxin (TCDD) diluted with corn oil, gave orally using a gavage every day for 12 days.

Experimental groups were: Negative control group (NC) received normal food and water; Positive control group (PC) given a dose of 200 ng/kg b.wt./day TCDD; Yogurt of cow's milk with purple rosella extract with each concentration (0.5%, 1%, 1.5%) was given to each treatment (P1, P2, and P3). Group P1 was given a dose of 200 ng/kg b.wt./day TCDD and 1 mL of 0.5% roselle yogurt; Group P2 was given a dose of 200 ng/kg b.wt./day TCDD and 1 mL of 1% roselle yogurt; and Group P3 was given a dose of 200 ng/kg b.wt./day TCDD and 1 mL of 1.5% of roselle yogurt.

Sample collection and analyses

The experimental rats (*Rattus norvegicus*) were euthanized at the end of the experiment. The abdominal cavity was incised, and kidneys were extracted immediately. The left kidney was immersed in a 10% formaldehyde solution to be used for making histopathological preparations. Then, the right kidney was wrapped in aluminum foil and stored at -20° for biochemical analyses.

Determination of (*malondealdehyde*) MDA levels using the Thiobarbituric acid (TBA) method. The kidney sample was weighed as much as 0.5 grams, crushed with a mortar, then added 200 μl of physiological NaCl. The homogeneous sample was put into a polypropylene tube and added with distilled water. Then added 100 μl of homogenized TBA, added

250 μl of 1N HCl, and homogenized again. The homogeneous mixture was added with Na-Thio 1% as much as 100 μL and centrifuged at 500 rpm for about 10 minutes. The supernatant was taken then heated in a water bath of 100°C for 20 minutes. The supernatant was then cooled at room temperature, and the absorbance value of the sample was determined using a UV-Vis spectrophotometer at its maximum wavelength (Widyaningsih *et al.*, 2015).

Kidney samples were immersed into xylol concentration levels 1-3 each for 5 minutes. The dehydration was carried out by inserting the sample into stratified ethanol starting from 1-3 absolute ethanol, 95%, 90%, 80%, and 70% ethanol for 5 minutes each. The preparations were then immersed in distilled water for 5 minutes. After that, put in a hematoxylin dye for 10 minutes. The preparations were washed in running water and soaked in distilled water again to remove excess eosin. After that, the dehydration process, the preparations were put into the ethanol series, graded from 80%, 90%, and 95% to absolute ethanol 1-3. The last process, namely clearing by inserting the preparations into xylol 1 and 2, then drying. The mounting process was carried out using Etellan®. After the mounting process, the prepared slides were observed and examined under the light microscope equipped with a digital camera and the images were processed using a software and each sample was observed in five fields view. Observations were made to determine epithelial necrosis, glomerular and tubular damage.

Data analysis

Statistical analyses using One Way Analysis of Variance (ANOVA) continued with Honest Real Difference (HSD) Tukey's test (α = 5%). The results of the observation of the histopathological preparations of the kidney were analyzed descriptively.

Results and Discussion

Table 1 shows the result on yogurt fortified with purple roselle extract nutritional and antioxidant activity analysis. Antioxidant activity assay for yogurt fortified with purple roselle extract IC_{50} result was increasing as the concentration of the purple roselle extract increase.

Table 1:Analysis of yogurt fortified with different concentration of purple roselle extract

Sample	Test	0.5%	1.0%	1.5%
Yogurt fortified with purple roselle extract	Protein (%)	2.26	1.98	1.99
	Fat (%)	3.32	3.92	3.75
	Water (%)	89.21	89.17	89.25
	Ash (%)	0.75	0.74	0.74
	Carbohydrate (%)	4.46	4.19	4.27
	Antioxidant IC_{50} (mg/mL)	181.10	140.68	137.70

Table 2 shows the MDA level assay of all treatment groups. MDA level on all treatment groups showed a significant increase compared to negative control group.

Fig. 1 shows the kidney histopathological changes on each group with HE staining under light microscope with 400x magnification. The histopathology of rat kidney showed differences in each treatment group according to the changes in glomerulus, Bowman's space, and kidney tubular.

Table 2: MDA level of rat's kidney of all groups in the study

Groups	Kidney MDA level (ng/mL) Mean±SD
NC	180.46 ± 245.91^a
PC	414.22 ± 13.46^b
P1	425.50 ± 32.60^b
P2	444.11 ± 2.35^b
P3	$418,02\pm10.91^b$

Differences in superscript notation indicate a significant difference between groups at $P<0.05$

Qualitative analyses of damaged kidney cells were carried out by determining a score based on the percentage of damage, and the number of cell damage, according to Windahartono *et al.* (2013). Table 3 shows the histopathological observations of rat kidney.

Table 3: Histopathological findings observed in the kidney tissues of the rats according to the experimental groups

Group	Necrosis	Inflammatory cells	Haemorrhage
NC (A)	-	++	-
PC (B)	+++	+++	+++
P1 (C)	+++	++	++
P2 (D)	+++	++	++
P3 (E)	++	+++	+++

(-) none, (+)1%-2.99% ,(++)3%-4.99%, (+++)5%-6.99%

According to Khairan (2010), biochemical processes in the body, such as inhalation of oxygen, aerobic metabolic processes, and excessive food processing will produce low amounts of free radicals, one of the products of free radicals produced, called malondildehyde. MDA

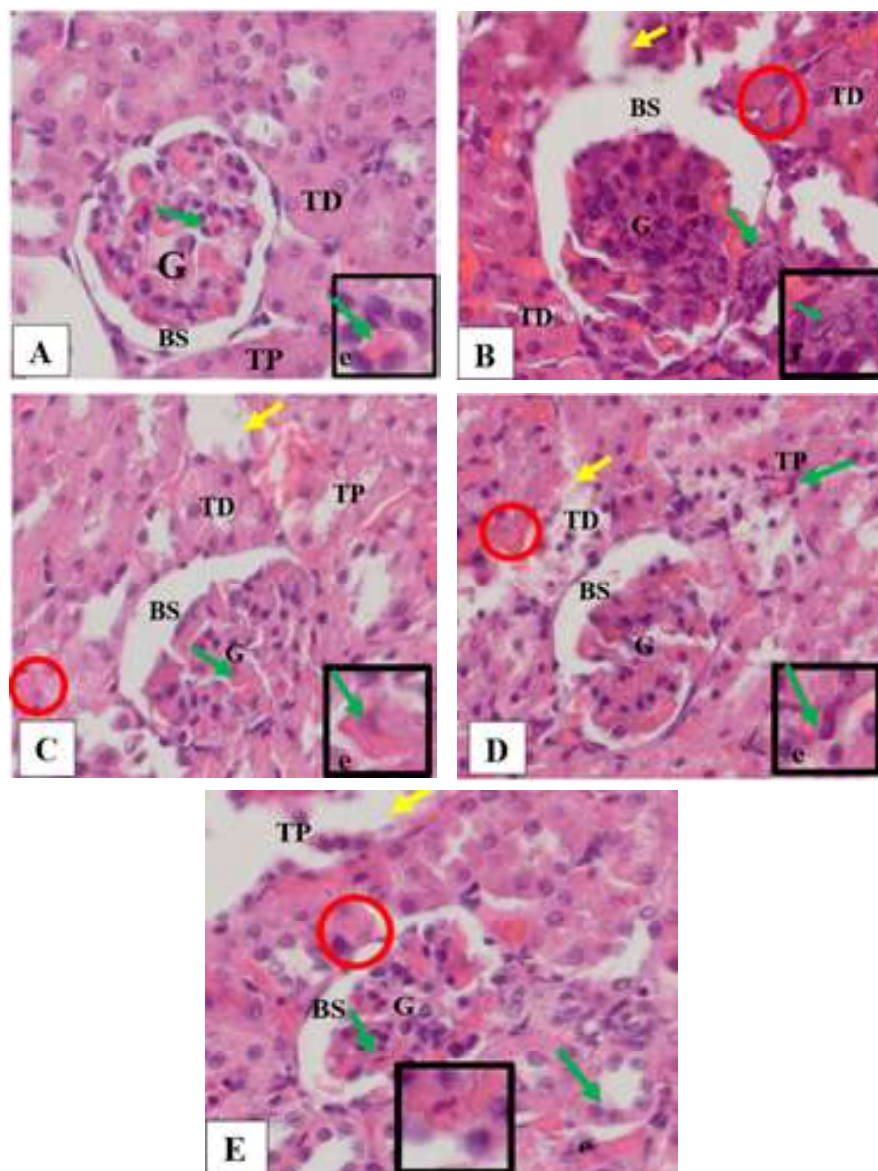

Fig. 1: Rat's kidney histopatological appearance. Group NC (A), Group PC (B), Group P1 (C), Group P2 (D), Group P3 (E): HE staining; Magnification 400x and 1000x (e).G (glomerulus); BS (bowman's space); TD (distal tubule); TP (Proximal tubule); (green arrow) = erythrocytes; (yellow arrow) = necrotic cells, e : Neutrophils, f : lymphocytes; red circle = haemorhage.

levels in the PC group exposed to TCDD at a dose of 200 ng/kg b.wt., showed a significant increase (P<0.05) compared with the NC group. This proves that TCDD exposure has an effect on the kidneys, which can cause oxidative stress. TCDD has lipophilic properties; when it enters the body, it easily accumulates in the adipose tissue, making it difficult to remove. The elimination time of TCDD in mice lasts 12-31 days and in humans lasts for years, so that with these properties, TCDD will continue to be in the kidney adipose tissue for a long time and will continue to initiate oxidative stress (Rozewicz, 2016).

Based on the average MDA level, there was no preventive effect of fortified yogurt with purple roselle extract on the damage caused by dioxin intoxication in rat's kidney.These results can be caused by several reasons, including the concentration factor of purple roselle extract fortification, which at the given concentration did not have an effect on preventing the increase in MDA levels of the kidney due to dioxin intoxication. The analyses on the antioxidant activity test of yogurt fortified a concentration of 0.5%, 1.0%, and 1.5% purple roselle extract had a relatively low value of antioxidant levels (Table 1). Based on the antioxidant activity value of IC_{50} according to Alfian and Susanti (2012), the IC_{50} value is said to be very strong if it is less than 0.01 mg/mL, strong 0.01-0.05 mg/mL, moderate at 0.05-0.1 mg/mL, and weak if the value is more than 0.01 mg/mL. For this reason, a higher concentration of purple roselle extract is needed in order to have an efficient effect on preventing increased levels of MDA in rat kidneys.

Pathological changes in the kidney tissues of the positive control group (PC) given with TCDD at a dose of 200 ng/kg b.wt., had a visible difference compared with the negative control (NC). The PC group showed necrosis that was present in almost all tubules, there are several inflammatory cells (neutrophils and lymphocytes), the size of the glomerulus is reduced, and the bowman space looks very wide. Reyner *et al.* (2016) explained that the blood flow to the kidneys is very large, and the kidneys also function in the excretion of metabolic products and foreign chemicals, so it is very risky to carry toxic materials and will cause damage to kidney tissue, especially in structural changes, kidney structure, and function.

Glomerular atrophy caused by TCDD deposited in the adipose tissue will indirectly cause the kidney to experience a gradual injury over a long period of time, then haemodynamic changes will occur and will trigger atrophy in the glomerulus, the space between the glomerulus and bowman's capsule will be filled with a lot of sediment causing the glomerulus is compressed and shrinks so that Bowman's space is widened. In the kidneys, haemorrhage is also found. Haemorrhage occurs due to TCDD, which is a toxic substance that damages blood vessels, so that blood and blood components go out into the tissue, characterized by finding red spots on the tissue. When there is hemorrhage in the tissue, the cells do not get blood intake. The cells will experience swelling, after that there is denaturation of proteins by the cells, and the cells experience death, characterized by loss of cell nuclei and chromatin image, the nucleus looks denser, becomes crooked, more color dark (pycnosis), divided into torn fragments (karyorrhexis), and pale (karyolysis). This event will increase the load when there is the filtration of the glomerulus, and inflammation occurs. The inflammation that occurs will trigger the release of inflammatory cells. According to Ulilalbab *et al.* (2018), giving antioxidants,

especially orally for 36 days, can play a role in neutralizing or protecting the effects of compounds due to free radicals. Meanwhile, regenerating the renal epithelium, especially the tubules, needs approximately 1 month or 28 days to repair themselves (Yokote *et al.*, 2012).

Recent study concludes that, based on the MDA level and the histopathological features of kidney tissues in rats TCDD exposure can increase the MDA level and histopathological changes in all groups exposed to TCDD. The prevention using yogurt fortified with purple roselle extract concentrates at 0.5%, 1.0%, and 1.5% has no effect on preventing kidney damage due to dioxin intoxication. These results suggest that an increase in concentration on purple roselle extract might increase the antioxidant properties and the protective effect.

Acknowledgments

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