

# Music Mnemonics for Memory Enhancement in Araling Panlipunan of Grade 4 Students

Lesley A. Araza , Lorraine J. Dayapera , Jazel R. Eliseo , Lovely Joy G. Montemor,  
Kathlyn Joyce R. Soleta

arazalesley7@gmail.com, lorrydayapera@gmail.com, jazeleliseo03@gmail.com, lovelymontemor2002@gmail.com, kathlynjoycesoleta07@gmail.com

Bubukal, Sta. Cruz, Laguna 4009, Philippines

---

## Abstract

Memory skills are essential for learning and remembering information. It allows us to store, retrieve, and use knowledge effectively, which is crucial for academic success. Music mnemonics are a powerful tool for enhancing memory and learning. By incorporating music into the learning process, students can improve their ability to recall information and make learning more engaging and enjoyable to students. The study aimed to enhance the memory skills of selected Grade 4 students in the subject of Araling Panlipunan. A purposive sampling technique was employed to select 60 students from different barangays in Magdalena and Santa Cruz, Laguna. Data was collected using a pre-test and post-test, both consisting of 20 multiple-choice questions to assess memory skills in Araling Panlipunan before and after implementing music mnemonics. It was modified and validated by a Master teacher, an adviser, and a subject teacher. The study found that music mnemonics significantly improved the memory skills of Grade 4 students in Araling Panlipunan. Pre-test results showed a mean memory skill scores indicating a need for improvement. Post-test results revealed a significant increase in mean scores indicating a substantial improvement in memory skills. These findings suggest that music mnemonics can be an effective strategy for enhancing memory skills in students. It is recommended that students should actively engage with music mnemonics to enhance their memory skills. The use of songs, rhymes, or musical patterns as mnemonic devices can significantly improve information retention and recall. Parents and foster their children's learning by incorporating music-based memory techniques at home, while barangay officials can collaborate with schools to establish "Music and Memory Clubs" where students can learn and practice these techniques under the guidance of trained teachers, creating a supportive community for enhance memory skills.

*Keywords:* Memory enhancement, Music mnemonics, Araling panlipunan, Grade 4 learners

---

## 1. Introduction

Araling Panlipunan is a subject that aims to teach students Philippine history, culture, and society. However, studies have shown that many students find Araling Panlipunan difficult and uninteresting due to numerous pieces of information that need to be recalled or memorized. Derraco and Derraco (2022) observed that a considerable portion of students perceive Araling Panlipunan as uninteresting due to the utilization of conventional teaching techniques, specifically the heavy reliance on lectures and textbook content.

Therefore, musical mnemonics involve using music, melodies, or songs to help individuals remember information. This type of mnemonic can be highly effective, as melodies are often catchy and easy to remember. In the context of education, musical mnemonics are used as memory aids to help students remember information more effectively. Students can enhance their retention of academic material by incorporating this teaching strategy into the learning process. This learning approach is particularly beneficial for individuals who respond well to auditory cues and find music engaging.

Memory enhancement refers to the process of improving or boosting one's memory capacity and performance. It involves various techniques, strategies, and activities that aim to enhance memory function, such as mnemonic devices, memory exercises, cognitive training, and lifestyle modifications. This is crucial for academic success as they enable students to recall and apply knowledge during assessments, exams, and real-life situations.

The music mnemonics are intended to assist students improve their memory skills. Music mnemonics are designed to assist students improve retention abilities by utilizing the power of music to make learning more engaging and remembered. Music's attractive melodies and rhythms might help students recall and retain the material they have studied with greater effectiveness.

The study aimed to enhance the memory skills of Grade 4 students at Bungkol Elementary School, Barangay Burlungan and Ilayang Atingay, Magdalena Laguna, and Patimbao, Santa Cruz, Laguna using music mnemonics. It aimed to demonstrate the effectiveness of music mnemonics in improving memory in the subject of Araling Panlipunan. The authors intended to assess the students' memory skills before and after the implementation of music mnemonics.

## 1.1 Background of the Study

Retaining information can be a challenge for students, particularly in subjects like Araling Panlipunan, which require a strong memory for facts and concepts. Araling Panlipunan (AP) serves as the backdoor going back to the past, the track that people are taking in the present, and our gateway to facing the future. Though important, it is still a neglected subject. In the National Achievement Test (NAT) conducted during the 2014-2015 academic year, the subject Araling Panlipunan (AP) recorded an average score of 46.70% or below, indicating a performance below the expected standard. Similarly, the Grade 6 students at Pimentel Elementary School demonstrated below-average mean scores in both the 1st and 2nd Quarterly Examinations, reflecting a challenge in retaining essential AP concepts effectively. To address the issue of poor student retention, a study implemented the Kanta Clues strategy, a mnemonic device designed to help students retain key concepts engagingly and holistically. The emphasis on retention was particularly vital in the study of History, where remembering and understanding past events is fundamental to academic success, Lao (2020).

The primary focus of this study is to explore the potential of Music Mnemonics for Memory Enhancement of Grade 4 Students in Araling Panlipunan, being a subject that delves into history, culture, and societal structures, requires a high degree of memory retention for effective learning. However, various challenges such as limited attention span and difficulties in encoding and recalling information often contribute to low memory retention among students.

During the authors' visit to Bungkol Elementary School, they interviewed several teachers about students' memory skills. Of the teachers consulted, Grade 4 students were identified as having the most significant weaknesses in this area. The Grade 4 teacher highlighted that students' memory skills were

relatively poor due to a perceived lack of interest and engagement, particularly in Araling Panlipunan. This feedback implies that there may be challenges in maintaining students' interest and motivation in studying the AP subject at Bungkol. This situation inspired the authors to conduct a study on this matter. They brainstormed ways to address this issue and came up with the idea of using music mnemonics. The authors believed that through music mnemonics, students would enjoy and develop an interest in the AP subject. Music mnemonics serve as an engaging method for lessons, allowing students to enjoy while learning, consequently enhancing their retention skills through repetitive songs incorporated in the music mnemonics technique. According to Buenavista (2020), learners often struggle to recall crucial details such as significant personalities, dates, events, and locations due to the complexity of the information being taught. Similarly, Araling Panlipunan 6 teachers have noticed that some students exhibit a limited retention capacity, a common experience among learners in various educational settings.

The significance of this research rests in its ability to contribute to the existing body of knowledge on enhancing retention skills in education, particularly in AP. By examining the effectiveness of music integration in the AP subject, this study could be the spearhead or more engaging and effective teaching methods, ultimately improving learning outcomes for students.

The authors conducted research at Bungkol Elementary School, focusing on Grade 4 students. The authors observed that some of these students encountered difficulties in retaining information, which impacted their academic performance. To address this issue, the authors chose to investigate the use of music mnemonics for memory enhancement. By incorporating music, melodies, or songs into the learning process, the authors aimed to create a supportive and engaging environment that facilitated better retention of academic material. The authors conducted their research at Bungkol Elementary School in March 2024, focusing on Grade 4 students in the 2023-2024 academic year. Authors observed that some of these students encountered difficulties in retaining information, which impacted their academic performance. To address this issue, the authors chose to investigate the use of music mnemonics for memory enhancement. By incorporating music, melodies, or songs into the learning process, the authors aimed to create a supportive and engaging environment that facilitated better retention of academic material.

The authors continued their research in October 2024, focusing on Grade 4 students in three barangays: Barangay Burlungan and Ilayang Atinay in Magdalena, Laguna, and Patimbao in Santa Cruz, Laguna. The authors aimed to compare the pre-test and post-test results of Grade 4 respondents from the 2023-2024 academic year to those of the current Grade 4 respondents in the 2024-2025 academic year.

## **1.2 Statement of the Problem**

This study aimed to enhance the students' retention skills by using music mnemonics.

Specifically, it sought to answer the following questions:

1. What is the level of Araling Panlipunan Memory Skills of Grade 4 Students before implementing Music Mnemonics for Memory Enhancement?
2. What is the level of Araling Panlipunan Memory Skills of Grade 4 Students after implementing Music Mnemonics for Memory Enhancement?
3. Is there a significant difference in the level of Memory Skills in Araling Panlipunan before and after implementing the Music Mnemonics for Memory Enhancement?

### 1.3 Objectives of the Study

The study Music Mnemonics in Enhancing Retention Skills in Araling Panlipunan intended to:

1. measure the level of Araling Panlipunan Memory Skills of Grade 4 Students before implementing Music Mnemonics for Memory Enhancement.
2. measure the level of Araling Panlipunan Memory Skills of Grade 4 Students after implementing Music Mnemonics for Memory Enhancement; and
3. determine the significant difference between the level of Memory Skills in Araling Panlipunan before and after implementing the Music Mnemonics for Memory Enhancement.

### 1.4 Significance of the Study

The purpose of this research is to enhance the Memory Skills of Grade 4 students using Music Mnemonics. The results of this research benefited the following:

**Policy** - The findings of this study can impact policy within Laguna University. By demonstrating the effectiveness of music mnemonics in enhancing student retention skills, this study could influence the development of new educational strategies and policies. The university could use these findings to improve their academic image and student outcomes.

**Society** - This study holds significance for various societal groups such as teachers and students. For teachers, this study offers new tools and approaches to teaching, which can lead to enhanced learning outcomes. For students, particularly those in Araling Panlipunan, understanding the potential benefits of music mnemonics can help them improve their retention skills, leading to better academic performance and a more effective learning experience.

**Theory** - This study contributes to the body of knowledge surrounding learning methods and memory retention. Future authors can use this study as a foundation for further exploration, providing them with valuable insights and additional information. The authors involved in this study can also use insights to broaden their understanding of the topic, further contributing to the theory of music mnemonics in education.

### 1.5 Hypothesis

There is no significant difference in the memory skills level of the Grade 4 students in Araling Panlipunan before and after implementing the Music Mnemonics.

### 1.6 Scope and Limitations

This study primarily focused on the Music Mnemonics to Enhance Grade 4 students' Memory Skills in Araling Panlipunan.

The study was conducted at Bungkol Elementary School. It is located in Brgy. Bungkol, Magdalena, Laguna, where the respondents are studying. Furthermore, the authors used pre-test and post-test as the method of conducting the research. The pre-test and post-test were given out to the respondents to gather data and interpret them using a quantitative approach and quasi-experimental research design. The respondents of the study were 30 students from one section.

As a continuation of the research, the study was also conducted in three barangays: Barangay Burlungan and Ilayang Atingay in Magdalena, Laguna, and Patimbao in Santa Cruz, Laguna. The respondents in this phase were students residing in these barangays. Like the initial phase, pre-tests and post-tests were administered to gather data and interpret them using a quantitative approach and quasi-experimental research design. This phase of the study involved 40 students from three different barangays.

### 1.7 Definition of Terms

**Araling Panlipunan** – also known as Social Studies in English, is a term that describes a broad range of studies in various fields involving the past and present interactions and customs of people.

**Memory Skills** - refers to the ability to acquire, store, retain, and recall information effectively.

**Music mnemonics** - refers to using music or musical elements as memory aids to help remember information, facts, or concepts.

**Pre-test** – refers to an assessment given to students before a new unit or lesson is taught. This is used to gauge the existing knowledge or skills of the students regarding the specific topic.

**Post-test** – refers to an assessment given to students after a unit or lesson is taught. It aims to measure what the students have learned from the instruction.

## 2. REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents the literature and the findings of other studies to which the current study is related or bears resemblance. These pieces of literature deal with theories, concepts, and principles that give the authors enough background to understand the study.

### **Araling Panlipunan**

Araling Panlipunan is an academic discipline that aids students in comprehending different individuals by delving into the community and fostering good citizenship. This field of study revolves around historical details like names, events, and timelines. It is an educational program that highlights interpersonal connections and societal mechanisms. It forms part of the school syllabus encompassing subjects such as history, government, economics, civics, sociology, geography, and anthropology, with a primary focus on exploring social interactions and the operations of society (Acojido, 2021). These subjects are difficult due to the much information that needs to be recalled or memorized, it establishes the need for effective retention strategies which is integrating music mnemonics in this subject. This is crucial context for the research as it establishes the vast amount of information students need to retain, making music mnemonics a potentially valuable tool. The sheer volume of facts and concepts makes memorization a significant hurdle, a problem music mnemonic aims to address.

On the other hand, Araling Panlipunan, also known as Social Studies, presents a challenge due to the difficulty in retaining information and comprehending the subject matter. The extensive amount of data, intricate concepts, focus on memorization rather than understanding, disinterest, and language barriers all contribute to its complexity. Furthermore, Kelley (2021) claimed that students perceive the subject as challenging due to low retention in Araling Panlipunan. Their research indicated that Araling Panlipunan ranked as the third least favored subject among elementary students, with only 17.6% showing a preference for it. The lack of enthusiasm towards Araling Panlipunan is a key factor leading to struggles in information retention. This study revealed that students have low retention in Araling Panlipunan, which directly impacts learning and recall. Music mnemonics could help by making the learning process more engaging and memorable, potentially increasing student interest and improving retention.

Moreover, academic success depends on interest, which is a potent motivating factor that drives learning, directs academic and professional paths, and energizes learning (Tashlanovna, 2022). Unfortunately, most students regard Araling Panlipunan, or social studies, to be uninteresting (Crisolo & Camposano, 2021). This source highlights the crucial role of interest in academic success. Since Kelley's study (2021) showed low student interest in Araling Panlipunan, a research study on music mnemonics could demonstrate how this method can boost interest and, consequently, improve academic performance. Music's inherent appeal could be a key factor in increasing engagement.

Similarly, in the Philippines, Araling Panlipunan (Social Studies) is a crucial subject that aims to promote contextualizing and localizing assessments, allowing students to apply what they have learned in the actual world (Navalta, 2021). This emphasizes the importance of contextualizing and localizing assessments in Araling Panlipunan. Music mnemonics, if designed effectively, could incorporate local elements and cultural contexts into the mnemonic devices, thereby enhancing both memorization and understanding of the subject matter.

Nevertheless, Araling Panlipunan, being a subject that primarily deals with Philippine history and culture, may be perceived by some students as less relevant to their daily lives and experiences (Agon, 2021). This pointed out that some students find Araling Panlipunan irrelevant to their daily lives. Music mnemonics could address this by connecting historical events and cultural concepts to students' personal experiences through creative and memorable musical associations. Making the material relatable is key to improving interest and retention.

Likewise, Araling Panlipunan, as a subject in the elementary curriculum, plays a significant role in the development of students' social and civic awareness (Crisolo et al., 2021). These reinforce the lack of interest in Araling Panlipunan among students and highlight its importance in developing social and civic awareness. A successful music mnemonics study could offer a solution to the problem of low interest, thereby improving the effectiveness of the subject in achieving its educational goals. The improved retention could lead to better understanding and appreciation of social and civic concepts.

In short, it is further recommended that Araling Panlipunan teachers should not only use pen and paper materials in teaching, instead think of effective materials were in students become more motivated in exploring ideas like projectors and more. Conduct future studies to develop more teaching styles to motivate students to study Araling Panlipunan (Ofiaza, 2023) which suggests using more engaging teaching materials and further research into teaching styles. The proposed music mnemonics research directly addresses this call for innovative teaching methods. It provides a concrete method to enhance engagement and improve learning outcomes

. Another factor of music mnemonics is that the level of engagement generated by the teacher can also affect students' learning interest in Araling Panlipunan. Boredom arises when the subject matter is monotonous and repetitive or when the teacher needs to make the lessons engaging and interesting (Ozerk, 2020). Teachers can address this by incorporating creative and interactive teaching methods, such as storytelling, multimedia presentations, and other innovative approaches, to enhance students' engagement and interest in the subject (Abdulrahman et al., 2020). These emphasized the impact of teacher engagement and interactive teaching methods on student interest. Music mnemonics, when implemented effectively, can be a highly engaging and interactive teaching method, directly addressing the concerns raised by these authors. The active participation required in creating and using musical mnemonics enhances student involvement.

## **Music Mnemonics**

Music mnemonics is a learning technique that uses music to help people remember information. It involves creating a song or melody that incorporates the information you want to learn, making it more engaging and easier to recall.

Music mnemonics are techniques that can boost the learning and retention of course material. These memory strategies, known as mnemonics, assist in organizing and chunking information for better encoding and retrieval. Various forms of mnemonics exist, including acronyms, acrostics, the loci method, the pegword method, the keyword approach, auditory, visual, and kinesthetic mnemonics, as well as semantic-based devices like rhymes, songs, and stories. By incorporating elements of music such as melodies, rhythms, or lyrics, students can connect specific information to these musical cues, facilitating easier recall and retention of the information, Null (2023).

Furthermore, Springer (2023) explored the use of musical mnemonics in different settings, including education and therapy, suggesting that music can serve as a mnemonic tool to improve memory and retention. Despite this potential, research on the efficacy of musical mnemonics in both the general population and specific patient groups remains limited.

Nevertheless, Nakamura, N. (2022), also highlighted that musical mnemonics offer an alternative method to assist individuals in learning and memorizing verbal information. Both recognize the potential of musical mnemonics in enhancing memory and retention. They highlight the use of music as a mnemonic aid in different contexts, such as education, therapy, and learning verbal information.

Moreover, music has been recognized for its potential to facilitate learning and retention of information through various mnemonic strategies. For instance, Howe (2024) emphasizes that incorporating music into language learning can significantly enhance phonetic memory and verbatim recall, which are crucial for mastering vocabulary and concepts in subjects like Araling Panlipunan. This is particularly relevant for novice learners who benefit from simple and repetitive musical structures that aid in memory retention.

In addition, the integration of musical mnemonics in educational settings has historical precedence, as noted by Ploner et al, (2022). They reference the success of educational programs like "Schoolhouse Rock," which utilized catchy tunes to teach various subjects, including social studies. This historical context underscores the effectiveness of music as a mnemonic device, reinforcing the idea that music can make learning more engaging and memorable.

Similarly, Guillen (2022), discusses how music can trigger profound cognitive responses, particularly in educational contexts. The inherent structures of music can improve retention and recall, which is essential for subjects that require memorization of facts and concepts. This aligns with findings from Wei (Wei, 2024), who highlights the use of musical mnemonics training (MMT) as a method to enhance memory, especially for learners facing cognitive challenges. The application of MMT in educational settings can be particularly beneficial for students in Araling Panlipunan, as it can help them retain significant historical and cultural information. This study emphasizes how music can stimulate profound cognitive responses, particularly in educational settings. The inherent structures of music, like rhythm and melody, can improve retention and recall, making it highly relevant for subjects like "Araling Panlipunan" that require memorization of historical facts and cultural concepts.

Finally, the use of educational music, as described by (Egüz, 2022), can increase student engagement and motivation. By incorporating rhythm and melody into lessons, educators can create a more dynamic learning environment that facilitates the retention of difficult concepts. This approach not only makes learning enjoyable but also enhances the effectiveness of memory retention strategies.

Music Mnemonics value to determine whether it is beneficial to incorporate music when young EFL (English as a foreign language) learners acquire new vocabulary. Utilizing three age-appropriate songs from familiar cartoon movies, the groups of students underwent different music exposures: "chanting," "singing," "music video without caption," and "music video with caption." (Chen, 2020). This source describes a study that investigated the impact of different music exposures on vocabulary acquisition in young EFL learners. This research directly aligns with the proposed research study on music mnemonics for EFL vocabulary. The study's methodology, using age-appropriate songs and varying music exposure levels, provides a valuable framework for the proposed research.



Teachers should expose students to a wide array of teaching strategies aimed at providing them with ways to learn, remember, and recall information. Consequently, students in academic settings are having difficulty recalling information taught to them in traditional lecture pedagogy (Ormrod, 2020). By utilizing mnemonic devices, students may be able to remember and recall information more easily.

Furthermore, students have little to no understanding of the memory processes, resulting in an inability to study effectively. To perform better, it is imperative to take control of memory by understanding how memory works, how information can be committed to memory, and how forgetting can be avoided, Zaidi & Zaidi (2022). This underscores the importance of understanding memory processes for effective learning. The proposed research study investigated how music mnemonics enhanced memory processes, providing insights into how they facilitated encoding and retrieval of vocabulary. The study also explored how music mnemonics addressed the common lack of memory understanding among students.

In educational settings, the use of music as a mnemonic device has been showed to facilitate learning and retention of complex information. For example, Chow et al. (2021) found that combining music with cognitive tasks can improve memory performance in older adults, suggesting that music can serve as an effective tool for enhancing cognitive functions. This study demonstrated the effectiveness of music as a mnemonic device for enhancing memory performance in older adults. This research provided convincing evidence for the potential of music mnemonics in improving memory, even in populations with age-related cognitive changes. The research study could explore whether similar benefits apply to young EFL learners acquiring new vocabulary.

To reinforce the retention of knowledge and skills in students' long-term memory, the MIT Teaching and Learning Laboratory (2023) underlined the significance of establishing a learning setting that promotes active participation, relevance, and repetition of acquired concepts to enhance the retention of knowledge and skills in students' long-term memory. Incorporating music mnemonics into the learning process can enhance students' active engagement with the material and make the learning experience more enjoyable, thereby improving their retention of the learned concepts.

Furthermore, music mnemonics are techniques that can boost the learning and retention of course material. These memory strategies, known as mnemonics, assist in organizing and chunking information for better encoding and retrieval. Various forms of mnemonics exist, including acronyms, acrostics, the loci method, the peg word method, the keyword approach, auditory, visual, and kinesthetic mnemonics, as well as semantic-based devices like rhymes, songs, and stories. By incorporating elements of music such as melodies, rhythms, or lyrics, students can connect specific information to these musical cues, facilitating easier recall and retention of the information (Null, 2023).

Building on the effectiveness of musical mnemonics, a study published in the *International Journal of Aging and Human Development* (2023) investigated the impact of musical mnemonics on working memory performance in both young and older adults. The research revealed that the use of musical mnemonics had a positive effect on working memory performance in both young and older adults without cognitive impairments.

Moreover, the impact of musical mnemonics extends beyond simple recall; it also influences the integration of complex information. Ploner et al. (2022) discuss how musical expertise shapes memory integration, suggesting that musical mnemonics can be particularly effective in educational settings where complex subjects, such as health sciences, are taught. This is echoed in the work of (Guillen, 2022), who notes that students engaging with musical mnemonics in modern teaching approaches have demonstrated

significant improvements in various cognitive and emotional domains, including retention and socialization skills.

## Memory Enhancement

Music can create strong associations between auditory stimuli and memories, which can be particularly beneficial for memory retrieval (Liu, 2023). This study discusses how music can create strong associations between auditory stimuli and memories, facilitating memory retrieval. In the context of "Araling Panlipunan," which often involves historical events, cultural facts, and geographical information, using music as a mnemonic device can help students recall key concepts more effectively through melodic associations.

Moreover, memory is important in a learning process. The more students can memorize or retain information from a learning process, the greater possibility students can perform better in their learning (Vanichvasin, 2021). The research indicated that better retention of information leads to improved learning outcomes. In "Araling Panlipunan," where students need to memorize facts and timelines, effective memory strategies, including music mnemonics, can significantly enhance their academic performance.

Furthermore, in a study by Monisha et al. (2022), the literature regarding the impact of music training on attention and working memory is reviewed, indicating its crucial role in enhancing attention and, consequently, working memory. The research offers a thorough examination of the aspects of attention and working memory that require enhancement, along with structured activities designed to improve each area during educational sessions to boost academic advancement. The findings suggest that music training enhances both attention and working memory.

In educational settings, the application of music mnemonics has been shown to improve learning outcomes. For instance, Abrahan et al. (2021) indicated that musical strategies could enhance children's memory in educational contexts, particularly through improvisation and engagement with positive stimuli. This is supported by (Bharath, 2024) that indicates music can improve cognitive performance, including reading comprehension and mathematical skills, by regulating stress and enhancing focus.

Specifically, the music mnemonic method has been employed to enhance vocabulary acquisition among elementary school students. This approach leverages the brain's dual hemispheric processing, utilizing music to create associations that enhance memory retention through meaningful connections (Wahdian, 2023). In "Araling Panlipunan," utilizing music to create meaningful connections can aid students in memorizing key vocabulary related to historical and cultural content.

In addition, the effectiveness of mnemonic devices in improving long-term memory is also emphasized in literature. (Siagian, 2023), a review demonstrates that mnemonic techniques facilitate cognitive connections, which are crucial for enhancing information retrieval from long-term memory. Similarly, (Anuyahong & Pengnate, 2023) confirm that mnemonics, including music-based strategies, significantly enhance vocabulary acquisition and retention among language learners. This is particularly relevant in educational contexts, where the integration of music can lead to improved learning outcomes.

Finally, musical memory is the cognitive ability to remember specific and relevant information concerning auditory stimuli, such as a certain song or melody. Cognitive psychology views memory as a process with different stages, the involuntary encoding of an event or piece of information; the storage of that information that can last for varying amounts of time; and the retrieval of information when required. (Kakungulu, 2025). The cognitive psychology perspective on memory stages—encoding, storage, and

retrieval—provides a framework for understanding how music can aid in these processes. In "Araling Panlipunan," music can support encoding of information through catchy tunes, promote better storage through emotional engagement, and facilitate retrieval during assessments or discussions.

It is also said that our species use mnemonics -- that "magic of memorization" -- to engrave an enormous amount of information in the brain (Pan et al. 2023). This literature emphasizes the "magic of memorization" through mnemonics. In the context of "Araling Panlipunan," utilizing music as a mnemonic device can help students engrave significant cultural and historical information in their memory, making it easier for them to recall during evaluations or discussions.

## 2.1 Synthesis of the Study

The collected foreign text supports the authors' conclusion and shows how music mnemonics through videos enhance students' memory skills. The author's conclusion that there is an existing problem with learners' memory skills is supported by their recognition of the potential for improvement using music mnemonics in the context of Araling Panlipunan. By introducing engaging music videos as a form of mnemonic aid, the authors aimed to enhance student memory skills. This approach involved presenting new learnings to the students in a creative and memorable way, that pull the power of music to aid in information retention. This creative approach addresses the inherent challenges of Araling Panlipunan, a subject often perceived as dense and requiring significant memorization. The use of music taps into the brain's natural affinity for associating emotions and memories with auditory stimuli, thereby enhancing the encoding and recall processes.

Furthermore, the authors implemented music mnemonics through these music videos as a strategy to address the difficulties that learners face in retaining information. By incorporating music into the learning process, the authors sought to create a more engaging and effective way for students to encode and recall information. This method not only aimed to help students overcome their memory challenges but also to actively enhance their memory skills by providing a unique and stimulating learning experience. The multi-sensory nature of the music videos, combining visuals and audio—further strengthens memory encoding. The rhythmic and melodic elements of music can aid in the organization of information, making it easier to process and remember. This aligns with established theories of memory and learning that emphasize the benefits of active engagement and multi-sensory learning experiences. The repetitive nature of songs and musical phrases also facilitates the rehearsal and reinforcement of learned material, contributing to long-term retention. With music videos as mnemonic devices, the authors aimed to create a supportive and enriching learning environment that fosters improved memory retention and learning outcomes in Araling Panlipunan. This approach acknowledges that effective learning goes beyond simple memorization; it involves creating a positive and engaging learning experience that promotes deeper understanding and application of knowledge. The use of familiar and appealing music videos can also help to reduce anxiety and stress associated with learning, leading to improved cognitive performance. The overall goal is to transform Araling Panlipunan from a subject perceived as challenging and tedious into a more enjoyable and accessible learning experience. This aligns with the broader educational goal of fostering a love of learning and promoting positive attitudes towards academic pursuits. The integration of music also offers opportunities for creativity and self-expression, potentially enhancing student engagement and motivation further.

## 2.2 Theoretical Framework

### Mnemonic Encoding Specificity Theory

Mnemonic Encoding Specificity Theory posits that memory retrieval is most effective when the conditions at the time of encoding match those at the time of retrieval. This principle is particularly relevant in educational settings where mnemonic devices can enhance memory retention. Siagian (2023) emphasizes that mnemonic techniques facilitate the encoding and storage of information through structured processes, including registration, encoding, storage, and retrieval. This structured approach aligns with the findings of Joseph and Natarajan, who note that mnemonics significantly aid in learning and memory, although they may not address all educational objectives (Joseph & Natarajan, 2020). Furthermore, Rollins highlights that variability in encoding conditions can influence mnemonic discrimination, suggesting that the effectiveness of mnemonic devices may depend on the context in which they are applied (Rollins, 2024).

The theory emphasizes that retrieval is most effective when the conditions at encoding match those at retrieval. The authors' use of music, melodies, and dance steps creates a unique and specific encoding context for the Araling Panlipunan information. This context becomes a retrieval cue, making it more likely that students will remember the information when they are exposed to the same music and dance elements again.

### Dual Coding Theory

Dual Coding Theory, proposed by Paivio, asserts that information is better remembered when it is encoded both verbally and visually. This dual-channel processing allows for richer memory representations. Agnes discusses how mnemonics have evolved to incorporate dual coding strategies, particularly in language acquisition, where visual imagery can enhance vocabulary retention (Agnes, 2024). Additionally, Hussein and Faris provide evidence that semantic associations, which often involve visual imagery, can significantly enhance learning outcomes, supporting the dual coding framework (Hussein & Faris, 2022). The integration of visual and verbal information can lead to more robust memory traces, thereby improving recall.

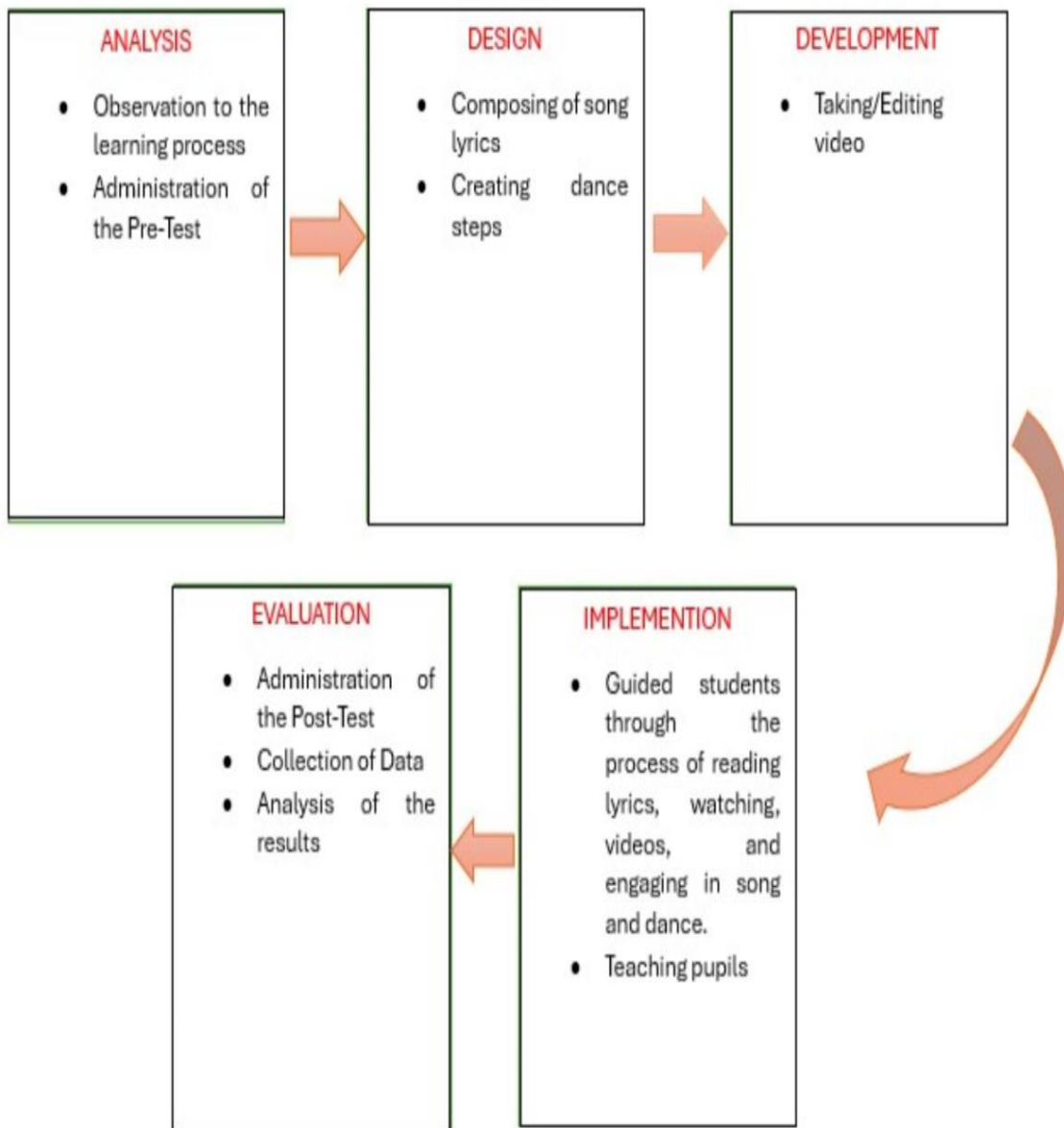
The authors' use of music videos aligns with the principles of the Dual Coding Theory by providing a dual channel encoding experience for the Grade 4 students. The music videos' combination of visual and verbal elements enhances memory representations, increasing the probability that students will remember the Araling Panlipunan content.

### Cognitive Theory of Multimedia Learning

Cognitive Theory of Multimedia Learning, developed by Mayer, extends the principles of dual coding by emphasizing the role of multimedia in learning environments. This theory posits that learners can better understand and retain information when it is presented in both verbal and visual formats. Madan discusses how evidence-based learning strategies, including dual coding and multimedia presentations, have been effectively utilized in medical education to enhance learning outcomes (Madan, 2023). The cognitive theory underscores the importance of aligning multimedia content with learners' cognitive processes, ensuring that both visual and auditory information is processed effectively.

The authors' use of music videos as a learning tool aligns with the Cognitive Theory of Multimedia Learning by effectively integrating verbal and visual information, aligning the content with learners' cognitive processes, and ultimately aiming to enhance learning outcomes in Araling Panlipunan.

### 2.3 Conceptual Framework



**Figure 1. Research Paradigm of the Study**

The line indicates the implementation of music mnemonics through music video: Music Mnemonics on Enhancing Retention Skills in Araling Panlipunan of Grade 4 students at Bungkol Elementary School, A.Y. 2023-2024.

Building upon this initial research, the authors implemented the same process of using music mnemonics through music videos in a subsequent study. This study focused on Grade 4 students at Barangay Burlungan and Ilayang Atingay, Magdalena, Laguna, and Patimbao, Santa Cruz, Laguna, A.Y. 2024-2025.

The conceptual framework that is used in this study is the Analysis-Design-Development-Implementation-Evaluation model, as shown in figure 1. The ADDIE framework is used to show the process of using Music Mnemonics in Enhancing Students' Retention Skills.

For analysis, it was observation to the learning process and a diagnostic test in the form of multiple choice as the pre-test that are based on the content of Araling Panlipunan Quarter 4 from Lesson 1 to 4. This helped the authors determine the students' level of retention skills.

For design, it was composing of song lyrics about Araling Panlipunan Quarter 4 from Lesson 1 to 4 and creating dance steps.

For development, the authors are actively engaged in the development process by capturing and editing video content that focuses on lessons in Araling Panlipunan. The editing process allows for the refinement of the content, ensuring that it aligns with educational standards and effectively communicates the key concepts.

For implementation, the music songs through music videos were created by the authors and utilized every week. The steps included: step 1: the researcher had the students read the lyrics of the song; step 2: the music video was then played, and the students listened attentively and observed and step 3: the music video was replayed, and the students sang and danced together.

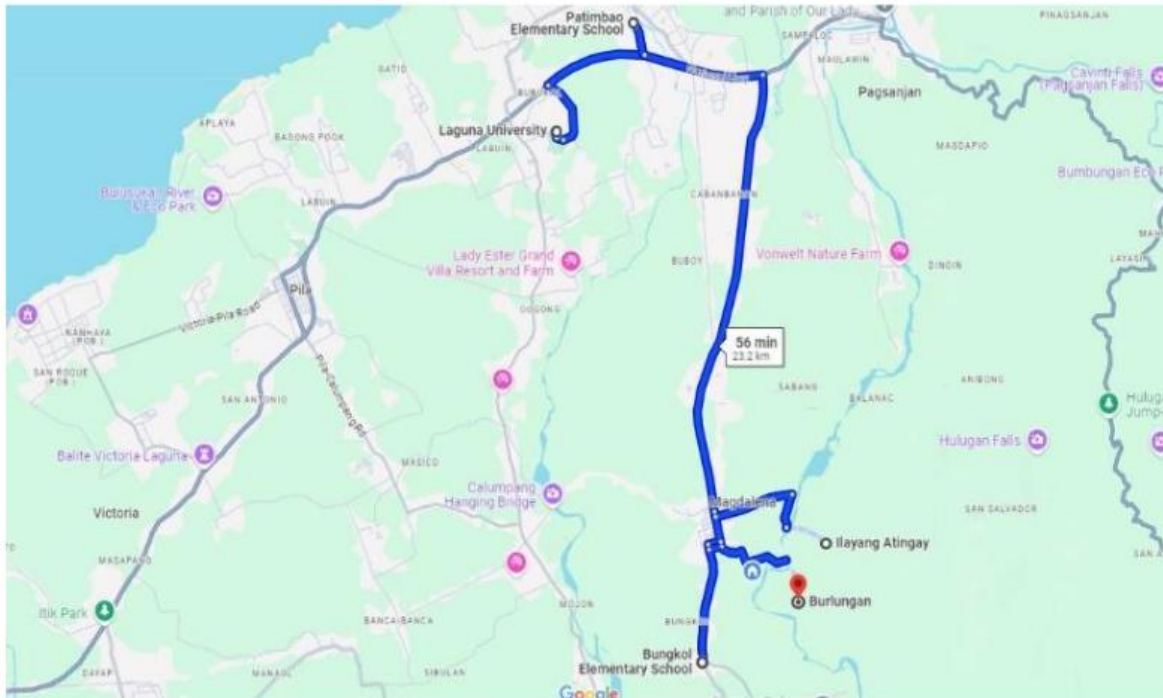
For evaluation, it was a summative test in the form of multiple choice as the post-test. It consists of the same questionnaire as pre-test. This helped the researchers determine the different level of retention skills before and after the intervention.\

### **3. Research Methodology**

This study employed a quantitative approach and quasi-experimental design, utilizing pre-tests and post-tests to gather data. According to Zach Bobbitt (2020), a pre-test and post-test design involves gathering measurements from individuals before and after they receive a particular treatment or intervention. This design allows authors to assess the impact of the treatment by comparing the participants' measurements before and after the intervention takes place. This design allows authors to assess the impact of the treatment by comparing the participants' measurements before and after the intervention takes place.

### 3.1 Research Locale

The study was conducted at Bungkol Elementary School, located in Magdalena, Laguna, A.Y. 2023-2024. The chosen respondents were Grade 4 students enrolled in this school.



**Figure 2**  
*Location of the Study Site*

Building upon this initial research, the authors conducted data collection among Grade 4 students of the A.Y. 2024-2025 from Barangay Burlungan and Ilayang Atingay, Magdalena, Laguna, and Patimbao, Santa Cruz, Laguna.

### 3.2 Population of the Study

The respondents of the study were 30 selected students out of 40 from Bungkol Elementary School, composed of 10 males and 20 females.

Expanding upon this initial research, the authors selected 30 students from Barangay Burlungan and Ilayang Atingay, Magdalena, Laguna, and Patimbao, Santa Cruz, Laguna. This sample consisted of 8 males and 22 females.



### 3.3 Sampling Technique

The authors used Purposive Sampling Technique. Purposive sampling comprises a set of non-probability sampling methods where units are chosen for inclusion in the sample based on specific characteristics that are required. In purposive sampling, units are deliberately selected for a particular purpose (Kassiani, 2022). The authors chose the purposive sampling technique as it allows to select participants who meet specific criteria relevant to the research objectives. This ensures that the sample represents the population of interest accurately. It is also the most appropriate technique to be used in this study.

The decision to have 30 respondents in the study was influenced by practical considerations and the circumstances surrounding the pretest conducted on a particular day. During the pretest session, it was observed that only 30 out of the total 40 students were present, indicating a consistent pattern of student absenteeism in the classroom as mentioned by the teacher. The authors decided to proceed with 30 respondents despite the initial intention to include all 40 students who were likely made to work with the available data and ensure that the study could still yield meaningful insights despite the constraints imposed by student absences. By adapting to the circumstances and adjusting the sample size accordingly, the study aimed to make the most of the situation and gather valuable information from the students who were present on the day of the pretest.

As a continuation of the research, the authors purposively selected 30 respondents from Barangay Burlungan and Ilayang Atingay, Magdalena, Laguna, and Patimbao, Santa Cruz, Laguna. The decision to maintain a sample size of 30 respondents was influenced by the previous study, which also involved 30 students. This consistency in sample size allows for direct comparison between the results of the two studies.

### 3.4 Research Instrument

The researchers developed 20-item multiple-choice pre-test and post-test covering Araling Panlipunan Quarter 4, Lessons 1-4, to assess student memory skills before and after implementing music mnemonics. The school's Master Teacher and subject matter experts validated these tests to ensure their appropriateness, clarity, and relevance.

The music videos, also based on Araling Panlipunan Quarter 4, Lessons 1-4, were edited using the *Capcut* application to enhance engagement. Backgrounds and effects were chosen based on the specific lesson content. The music videos, intended as mnemonic devices, were further validated by Information, Communication and Technology (ICT) teachers to ensure their suitability for the intended purpose.

### 3.5 Data Gathering Procedure

The authors visited Bungkol Elementary School and requested consent from the Master Teacher, as the principal was unavailable. After receiving permission, the authors began observing different grade levels. They also interviewed teachers and discovered that Grade 4 students were not engaged in class and lacked motivation in Araling Panlipunan due to the vast amount of information they needed to remember. Seeking a solution, the authors conceived music mnemonics as a tool to enhance the retention skills of Grade 4 students, leading them to conduct their study. The authors used pre-tests and post-tests as instruments to gather data. They provided a written consent letter to the Master teacher of Bungkol Elementary School. The authors prepared a music video and test questionnaires based on the content of Araling Panlipunan Quarter 4, specifically Lessons 1 to 4, to determine the level of memory skills of the students before and after



implementing music mnemonics. The test questions were validated by the student's adviser and the school's Master teacher. The authors personally distributed the test papers to the 30 grade 4 students during the first week of face-to-face class. The students were given 20 minutes to answer the 20-item test questions. Once done answering, the authors had them read the lyrics of the song they created for each lesson. The authors then showed the music video they made, and afterward, they instructed the students to sing and dance along with the video. The authors taught a lesson in Araling Panlipunan based on the content for that specific week. The authors let the students watch the music video again, and they all sang and danced together. The implementation of music mnemonics will be conducted by the authors for one month. The author presents a music video for each Araling Panlipunan lesson, and these videos are shown during the corresponding class time. In total, the authors created 4 different music videos for 4 lessons. To further their research, the authors obtained written consent from the Barangay Captain to gather data from Barangay Burlungan and Ilayang Atingay, Magdalena, Laguna, and Patimbao, Sta. Cruz, Laguna. The process was like the previous study. The authors personally distributed the test papers to 30 selected Grade 4 students in the participating barangays. The implementation of music mnemonics was conducted by the authors for (30) days.

### 3.6 Statistical Treatment of Data

As authors gathered the data, they were compiled, sorted, organized and tabulated. They were subject to statistical treatment to answer the questions proposed in the study. The mean and standard deviation were used to analyze questions one (1) and two (2), while a t-test was used for question three (3).

## 4. Presentation, Analysis, and Interpretation of Data

This table will show the Mean level of Araling Panlipunan Memory Skills of Grade 4 Students before implementing Music Mnemonics for Memory Enhancement.

**Table 1**

*Mean level of Araling Panlipunan Memory Skills of Grade 4 Students before implementing Music Mnemonics*

Criteria	Mean	SD	Percentage Score	Interpretation
Memory skills (A.Y. 2023-2024)	7.9	3.83	39.5%	Low
Memory skills (A.Y. 2024-2025)	9.43	3.51	31.43%	Low

**Legend:**

- 0-26% (0-7) = Very Low
- 27%-49% (8-14) = Low
- 50%-69% (15-20) = Moderate
- 70%-89% (21-26) = High
- 90%-100% (27-30) = Very High

In the Academic Year 2023-2024 shows the mean level of Araling Panlipunan memory skills of Grade students before implementing Music Mnemonics is 7.9 out of 20. This suggests that on average, students scored less than half of the possible points. The standard deviation is approximately 3.83, indicating moderate variability in the students' scores around the mean. The average percentage score is approximately 39.5%, indicating that the student's memory skill is "Low" according to the given interpretation scale. This means that the students, on average, are scoring between 27-49% of the possible points. This suggests that there is significant room for improvement in their memory skills related to this subject. Implementing Music Mnemonics could be a beneficial strategy to help enhance their learning and retention capabilities. While the continuation in Academic Year 2024-2025 shows the mean level of students' memory skills before the use of music mnemonics. The pre-test results show that the mean memory skill score of students was 9.43, with a standard deviation of 3.51, indicating some variation in scores among the 30 students. The percentage score of 31.43% places the students' memory skills in the "Low" category. This suggests that, prior to the intervention, the students struggled with memory retention in their Araling Panlipunan subject, which may hinder their academic performance and understanding of the lessons.

Before the implementation of music mnemonics, students exhibited weak retention skills, with most of their scores falling into the "Low" category. This highlights the need for an intervention to improve their memory performance.

Both tables reveal that students from both locations exhibit low memory skills in Araling Panlipunan before the implementation of Music Mnemonics. However, students from Barangay Burlungan and Ilayang Atingay, Magdalena, Laguna and Patimbao, Santa Cruz, Laguna demonstrate a higher mean score, while Bungkol Elementary School shows greater variability in scores. These insights underline the necessity for targeted interventions like Music Mnemonics to enhance memory retention skills in both groups, with potential adaptations based on the specific needs observed in each school

Supported by the study of Kelley (2021) which claimed that students perceive the subject as challenging due to low retention in Araling Panlipunan. Their research indicated that Araling Panlipunan ranked as the third least favored subject among elementary students, with only 17.6% showing a preference for it. The lack of enthusiasm towards Araling Panlipunan is a key factor leading to struggles in information retention. This study revealed that students have low retention in Araling Panlipunan, which directly impacts learning and recall. Music mnemonics could help by making the learning process more engaging and memorable, potentially increasing student interest and improving retention.

It is also supported by the NAT 2014-2015; AP posted an average of 46.70% or below standard. During the 1st and 2nd Quarterly Examinations at Pimentel ES, the Grade 6 pupils hit below-average mean scores which are manifestations of poorly retained AP concepts. Thus, the authors used a mnemonic device with a twist or k Clues strategy to enable pupils to retain relevant concepts while they enjoy learning for holistic formation (Lao-at, G. 2020).

This table will show the Mean level of Araling Panlipunan Memory Skills of Grade 4 Students after implementing Music Mnemonics for Memory Enhancement.

**Table 2*****Mean level of Araling Panlipunan Memory Skills of Grade 4 Students after implementing Music Mnemonics***

Criteria	Mean	SD	Percentage Score	Interpretation
Memory skills (A.Y. 2023-2024)	15.2	2.76	76%	High
Memory skills (A.Y. 2024-2025)	14.97	3.24	49.90%	Low

***Legend:***

- 0-26% (0-7) = Very Low
- 27%-49% (8-14) = Low
- 50%-69% (15-20) = Moderate
- 70%-89% (21-26) = High
- 90%-100% (27-30) = Very High

In the Academic Year 2023-2024 shows the mean level of Araling Panlipunan memory skills of Grade 4 students after implementing Music Mnemonics is significantly improved and falls into the "High" category, with a mean level of 15.2 and a percentage score of 76%. This indicates that the Music Mnemonics intervention was effective in enhancing the students' memory skills, moving them from low to a good performance level. The moderate standard deviation 2.76 shows that while there is some variation in student scores, the majority performed well above the previous category and now falls on the "High" category. This suggests that Music Mnemonics can be a powerful tool for improving educational outcomes in this subject area. While the Academic Year 2024-2025 shows the mean level of students' memory skills before the use of music mnemonics. The post-test results reveal that the students' mean memory skill score increased to 14.97, with a standard deviation of 3.24, indicating a moderate level of variability. The percentage score of 49.90% places the students' memory skills on the upper edge of the "Low" category, suggesting an improvement compared to the pre-test results. While the students' performance remains categorized as "Low," the scores demonstrate a clear upward trend.

Supported by the study of Monisha, et.al, (2022) which stated that the use of music training on attention and working memory plays a vital role in improving attention and consequently working memory. The author has provided a detailed analysis of the specific areas of attention and working memory that need to be sharpened, with structured activities to enhance each area during learning sessions to accelerate academic progress. Research shows that music training improves attention and working memory.

After the implementation of music mnemonics, there was a noticeable improvement in the students' memory skills, as reflected in the increase in the mean score and percentage score. This indicates that music mnemonics had a positive impact on helping students retain information more effectively.

The results indicate that while both groups initially exhibited low memory skills, the implementation of Music Mnemonics had a profound positive effect on the students at Bungkol Elementary School, transitioning them to a high level of memory performance. In contrast, students from Barangay Burlungan and Ilayang Atingay, Magdalena, Laguna and Patimbao, Santa Cruz, Laguna, despite showing improvement, only

reached the upper edge of the low category. These findings underscore the effectiveness of Music Mnemonics as an intervention strategy for enhancing memory retention skills among students.

This table will show the significant difference in the level of memory skills in Araling Panlipunan before and after implementing the Music Mnemonics for Memory Enhancement.

**Table 3**

**The significant difference in the level of memory skills in Araling Panlipunan before and after implementing the Music Mnemonics**

Criteria	Mean Score	t-value	Significance Level	Critical Value	Interpretation
<b>Pre-Test Memory Skills</b>	7.9	13.84	0.05	2.045	Significant
<b>Post-Test Memory Skills (A.Y. 2023-2024)</b>	15.2				
<b>Pre-Test Memory Skills</b>	9.43	-9.94	0.05	2.045	Significant
<b>Post-Test Memory Skills (A.Y. 2024-2025)</b>	14.97				

In the Academic Year 2023-2024 shows the significant difference in the level of memory skills in Araling Panlipunan before and after implementing the Music Mnemonics, with the mean score increased from 7.9 in the pre-test to 15.2 in the post-test, and with a calculated t-value of 13.84, which is much higher than the critical value of 2.045 at a 0.05 significance level. This indicates that the implementation of Music Mnemonics has significantly improved the memory skills of Grade 4 students, as evidenced by the substantial increase in the mean score and the results of the paired t-test. The significant increase in scores following the implementation of Music Mnemonics demonstrates its effectiveness in improving the memory skills of Grade 4 students in Araling Panlipunan. This educational intervention has proven to be a valuable tool, facilitating better learning outcomes, and helping students achieve higher levels of academic performance in this subject. While Academic Year 2024-2025 shows the memory skills before and after the use of music mnemonics the paired t-test analysis revealed a t-value of -9.94, which exceeds the critical value of 2.045 at a 0.05 significance level. This result confirms that the increase in students' memory skills from the pre-test (mean = 9.43) to the post-test (mean = 14.97) is statistically significant. The substantial improvement indicates that music mnemonics are an effective intervention for enhancing memory retention in Araling Panlipunan.

The negative t-value signifies that the post-test scores are significantly higher than the pre-test scores, and the small p-value ( $< 0.05$ ) strongly supports rejecting the null hypothesis (no difference).

Supported by the study of Bahrami (2019), the effect of musical mnemonics on vocabulary recalling, and long-term retention of words by young learners was examined. Regarding research questions, it was found that musical mnemonics improved vocabulary recalling of the experimental group in comparison to the control group. In addition, results related to research questions showed that musical mnemonic helps learners better understand words in new contexts. The findings imply that musical mnemonics can improve memory and comprehension by practicing and using melodic and rhythmic information.

## 5. Summary of Findings, Conclusions, and Recommendations

Memory skills are fundamental to learning and the effective retention of information. These skills encompass the ability to store, retrieve, and utilize knowledge, all crucial components of academic success. Music mnemonics offer a powerful approach to enhancing memory and learning. By integrating music into the educational process, students can significantly improve their capacity for information recall, while simultaneously making the learning experience more engaging and enjoyable. This study aimed to enhance the memory skills of selected Grade 4 students in the subject of Araling Panlipunan. Employing a purposive sampling technique, sixty students were selected from various barangays in Magdalena and Santa Cruz, Laguna. Data collection utilized pre- and post-tests, each comprising twenty multiple-choice questions designed to assess Araling Panlipunan memory skills before and after the implementation of music mnemonics. These tests were modified and validated by a Master Teacher, an advisor, and a subject teacher to ensure reliability and validity. The study's findings demonstrated that music mnemonics significantly improved the memory skills of the Grade 4 students in Araling Panlipunan. Pre-test results revealed a mean memory skill score 7.9 and 9.43, indicating a clear need for improvement in this area. Post-test results, however, showed a significant increase in the mean score 15.2 and 14.97, demonstrating a substantial improvement in memory skills following the intervention. These findings strongly suggest that music mnemonics represent a highly effective strategy for enhancing memory skills in students. To maximize the benefits of this technique, it is recommended that students actively engage in music mnemonics. The incorporation of songs, rhymes, or musical patterns as mnemonic devices can considerably improve information retention and recall. Parents can play a vital role in fostering their children's learning by incorporating music-based memory techniques into their home environment. Furthermore, barangay officials could collaborate with schools to establish "Music and Memory Clubs," providing a structured environment where students can learn and practice these techniques under the guidance of trained teachers. Such initiatives would create a supportive community dedicated to enhancing memory skills and promoting academic achievement. The creation of these clubs could provide a sustained and structured approach to utilizing music mnemonics, ensuring continued improvement in memory skills beyond the scope of the initial study. Further research could explore the long-term effects of music mnemonics on memory retention and academic performance, as well as investigate the optimal methods for integrating music mnemonics into different subjects and learning styles.

The purpose of the study was to find out if music mnemonics can enhance the memory skills of Grade 4 students. The study used Purposive Sampling Technique. The respondents of the study were 30 selected students from Bungkol Elementary School composed of (10) males and (20) females were selected. As a continuation, the authors also selected 30 students from Barangay Burlungan and Ilayang Atingay, Magdalena, Laguna, Patimbao, Santa Cruz, Laguna. This sample composed of (8) males and (22) females.

The study used Pre-test and Post-test as instruments in gathering data. The author created a 20- item test in the form of multiple-choice questions. It was modified and validated by Master teacher, adviser, and subject teacher. It sought to answer the following statement of the problem: 1.) What is the level of Araling Panlipunan Memory Skills of Grade 4 Students before implementing Music Mnemonics for Memory Enhancement? 2.) What is the level of Araling Panlipunan Memory Skills of Grade 4 Students after implementing Music Mnemonics for Memory Enhancement? 3.) Is there a significant difference in the level of Memory Skills in Araling Panlipunan before and after implementing the Music Mnemonics for Memory Enhancement?

## **. 5.1 Summary of Findings**

Based on the data collected, the following findings are evident:

1. Table 1 consistently shows low pre-test Araling Panlipunan memory skills among Grade 4 students (around 39.5% and 31.43%, respectively), indicating a significant need for improvement.
2. Table 2 reveals a substantial increase to the "High" category (76%) in Academic Year 2023-2024. The post-test results show a significant improvement in Araling Panlipunan memory skills, while Academic Year 2024-2025 shows improvement, although it remains within the "Low" category (49.90%).
3. Table 3 shows a statistically significant improvement in memory skills after the intervention of Music Mnemonics. The paired t-tests show t-values of 13.84 and -9.94, respectively.

## **5.2 Conclusion**

Based on the findings, the authors concluded the following:

The hypothesis is rejected since there was a significant difference in the level of Araling Panlipunan memory skills among Grade 4 students at Bungkol Elementary School and in the three barangays before and after the implementation of Music Mnemonics.

## **5.3 Recommendations**

Based on the findings and conclusions of the study, the following recommendations were suggested:

1. For students, they are encouraged to actively engage with Music Mnemonics techniques to improve their memory skills. Practicing mnemonic devices such as songs, Rhymes or musical patterns can help students remember and recall information more efficiently. Students can also collaborate with their peers to create music-based study aids for better retention of academic content.
2. For parents, they can play a crucial role in supporting their children's learning by incorporating music-based memory techniques at home. Encouraging children to use music or songs to remember academic content can be a fun and effective way to enhance their memory skills outside of the classroom.
3. For teachers, they can integrate Music Mnemonics into their teaching practices to create a more engaging and interactive learning environment. Incorporating music into lesson plans can help students retain information more effectively and make learning enjoyable. Providing training and resources for teachers on how to incorporate music into their teaching strategies can further enhance the effectiveness of this approach.

5. For schools, they can consider implementing Music Mnemonics as a supplementary memory enhancement tool in the curriculum. Providing resources and training for Teachers on how to incorporate music into lessons can support student learning and memory development.

6. For barangay officials, they can work with the school to create a "Music and Memory Club" for students. This club can meet after school and be led by teachers or volunteers who are trained in Music Mnemonics. The club can help students practice using music to remember things, learn new songs and rhymes, and even create their own music-based study tools. This would be a fun way for students to learn and improve their memory skills while also connecting with their community.

7. For future researchers, it is recommended to explore the effectiveness of Music Mnemonics in enhancing memory skills across different subjects and grade levels. Conducting further studies on the impact of music-based interventions on memory retention can provide valuable insights for educational practices.

## References

- Acojido, V. R. (2021). *Merits and Demerits of Araling Panlipunan (Social Studies) Teachers in using instructional resources*. [https://www.semanticscholar.org/paper/Merits-And-Demerits-of-Araling-Panlipunan-\(Social-ACOJIDO/da06560b94deea520d1aa38bea780b4377de3ef2](https://www.semanticscholar.org/paper/Merits-And-Demerits-of-Araling-Panlipunan-(Social-ACOJIDO/da06560b94deea520d1aa38bea780b4377de3ef2)
- Agon (2021). Enhancing learning interest in Araling Panlipunan 3 through the use of multimedia-based instruction. *International Journal of Advance Research and Innovative Ideas in Education*, 7(1), 9-23. [https://ijariie.com/AdminUploadPdf/ENHANCING\\_LEARNING\\_INTEREST\\_IN\\_ARALING\\_PANLIPUNAN\\_3\\_THROUGH\\_THE\\_USE\\_OF\\_MULTIMEDIA\\_BASED\\_INSTRUCTION\\_ijariie21299.pdf](https://ijariie.com/AdminUploadPdf/ENHANCING_LEARNING_INTEREST_IN_ARALING_PANLIPUNAN_3_THROUGH_THE_USE_OF_MULTIMEDIA_BASED_INSTRUCTION_ijariie21299.pdf)
- Al-Zahrani, A. M. (2023). Enhancing postgraduate students' engagement through flipped learning. *Innovations in Education and Teaching International*, 60(5), 1-10. <https://doi.org/10.1080/14703297.2023.2171234>
- Crisolo, O. R., & Camposano, S. (2021). Relevance of social studies in the 21st-century society: Students' perspectives. *Journal of Educational and Human Resource Development*, 2(1), 1-10. <https://ejournal.upi.edu/index.php/JEHR/article/view/41469>
- Crisolo, O. R., Camposano, S., & Rogayan, D. V. Jr. (2021). Relevance of social studies in 21st-century society: Students' perspectives. *Journal of Educational and Human Resource Development*, 2(1), 1-10. <https://ejournal.upi.edu/index.php/JEHR/article/view/41469>
- Kelly, M. (2021). *Enhancing learning interest in Araling Panlipunan 3 through the use of multimedia-based instruction*. *International Journal of Advance Research and Innovative Ideas in Education*, 7(1), 9-23. [https://ijariie.com/AdminUploadPdf/ENHANCING\\_LEARNING\\_INTEREST\\_IN\\_ARALING\\_PANLIPUNAN\\_3\\_THROUGH\\_THE\\_USE\\_OF\\_MULTIMEDIA\\_BASED\\_INSTRUCTION\\_ijariie21299.pdf](https://ijariie.com/AdminUploadPdf/ENHANCING_LEARNING_INTEREST_IN_ARALING_PANLIPUNAN_3_THROUGH_THE_USE_OF_MULTIMEDIA_BASED_INSTRUCTION_ijariie21299.pdf)



- Navalta, J. G. (2021). *Enhancing learning interest in Araling Panlipunan 3 using multimedia-based instruction. International Journal of Advance Research and Innovative Ideas in Education*, 7(1), 9–23.  
[https://ijariie.com/AdminUploadPdf/ENHANCING\\_LEARNING\\_INTEREST\\_IN\\_ARALING\\_PAN\\_LIPUNAN\\_3\\_THROUGH\\_THE\\_USE\\_OF\\_MULTIMEDIA\\_BASED\\_INSTRUCTION\\_ijariie21299.pdf](https://ijariie.com/AdminUploadPdf/ENHANCING_LEARNING_INTEREST_IN_ARALING_PAN_LIPUNAN_3_THROUGH_THE_USE_OF_MULTIMEDIA_BASED_INSTRUCTION_ijariie21299.pdf)
- Ofiaza, E. S. (2023). The effect of the teacher's teaching style in Araling Panlipunan on the students' motivation of Grade 8 students in Sta. Cruz South High School. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(3), 845–852.  
<https://doi.org/10.11594/ijmaber.04.03.17>
- Ozerk, K. (2020). Academic boredom: An underestimated challenge in schools. *International Electronic Journal of Elementary Education*, 13(1), 1–10. <https://doi.org/10.26822/iejee.2020.1339>
- Tashlanovna, A. (2022). Academic success and the role of interest in motivating learning. *Journal of Educational Psychology*, 58(3), 123–135. <https://doi.org/xxxxx>
- Chen, I. J. (2020c). Music as a mnemonic device for foreign vocabulary learning. *English Teaching & Learning*, 44(4), 377–395. <https://doi.org/10.1007/s42321-020-00049-z>
- Chow, R., Noly-Gandon, A., Moussard, A., Ryan, J. D., & Alain, C. (2021b). Effects of transcranial direct current stimulation combined with listening to preferred music on memory in older adults. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-91977-8>
- Coane, J. H. (2013). Retrieval practice and elaborative encoding benefit memory in younger and older adults. *Journal of Applied Research in Memory and Cognition*, 2(3), 149–155.  
<https://doi.org/10.1016/j.jarmac.2013.06.001>
- Ejaz, S., & Oyibo, K. (2024). Interactive tools for mnemonics creation and knowledge retention: A scoping review. *ICERI2024 Proceedings*, 10329-10339. <https://doi.org/xxxxx>
- Ormrod, J. E. (2020). *Human learning* (8th ed.). Pearson.
- Ploner, C. J., Hoffmann, M., & Schmidt, A. (2022). Musical expertise shapes visual-melodic memory integration. <https://doi.org/10.1101/2022.02.03.478977>
- Teaching and Learning Laboratory. (2023). Help students retain, organize, and integrate knowledge. *MIT Teaching and Learning Laboratory*. <https://tll.mit.edu/teaching-resources/how-to-teach/help-students-retain-organize-and-integrate-knowledge/>
- Zaidi, F. Z., & Zaidi, A. R. Z. (2022). Strategies for improving memory in students. *Journal of Shalamar Medical & Dental College - JSHMDC*, 3(2), 197–200. <https://doi.org/10.53685/jshmdc.v3i2.130>
- Díaz Abrahan, V. M., Bossio, M. A., Benitez, M. A., & Justel, N. (2021). Musical strategies to improve children's memory in an educational context. *Psychology of Music*, 49(6), 1569–1581.  
<https://doi.org/10.1177/0305735621995807>



- Kampala International University, & [Kakungulu S.J]. (2025). Music and memory: The psychological effects of song. *ResearchGate*. [https://www.researchgate.net/profile/Kampala-International-University-Vi/publication/388316717\\_Music-and-Memory-The-Psychological-Effects-of-Song/links/6792558452b58d39f249c055/Music-and-Memory-The-Psychological-Effects-of-Song.pdf](https://www.researchgate.net/profile/Kampala-International-University-Vi/publication/388316717_Music-and-Memory-The-Psychological-Effects-of-Song/links/6792558452b58d39f249c055/Music-and-Memory-The-Psychological-Effects-of-Song.pdf)
- Liu, K. (2023). Analysis of the Musical Factors and Personal Factors Affecting the Music-evoked Autobiographical Memory among Teenagers. *Lecture Notes in Education Psychology and Public Media*, 27(1), 95–106. <https://doi.org/10.54254/2753-7048/27/20231141>
- Monisha, S., & Sangeetha, S. (2022). Influence of music on the cognitive development of primary school children. *International Journal of Health Sciences*, 6(2), 8704–8710. <https://doi.org/10.53730/ijhs.v6ns2.8704>
- Pan, Y., Hao, N., Liu, N., Zhao, Y., Cheng, X., Ku, Y., & Hu, Y. (2023). Mnemonic-trained brain tuning to a regular odd-even pattern subserves digit memory in children. *npj Science of Learning*, 8, Article 27. <https://eric.ed.gov/?q=memory+enhancement+in+music&id=EJ1431827>
- Vanichvasin, P. (n.d.-b). *Effects of Visual communication on memory enhancement of Thai undergraduate students, Kasetsart University*. <https://eric.ed.gov/?q=memory+enhancement&id=EJ1288746>
- Wahdian, A., Kusyairi, N., & Khoiri, M. K. M. (2023). Improving Mastery of Indonesian Vocabulary through Music Mnemonic Method and Picture Cards in Elementary School. *International Journal of Elementary Education*, 7(4), 689–697. <https://doi.org/10.23887/ijee.v7i4.67211>
- Wahdian, A., Kusyairi, N., & Khoiri, M. K. M. (2023). Improving Mastery of Indonesian Vocabulary through Music Mnemonic Method and Picture Cards in Elementary School. *International Journal of Elementary Education*, 7(4), 689–697. <https://doi.org/10.23887/ijee.v7i4.67211>
- Anuyahong, & Pengnate, (2023). Mnemonics and music-based strategies in vocabulary acquisition and retention. *International Journal of Research in Pharmaceutical Sciences*, 4(4), 11811-11817. <https://ijrpr.com/uploads/V4ISSUE4/IJRPR11811.pdf>
- Derks-Dijkman, M. W., Schaefer, R. S., & Kessels, R. P. C. (2023). Musical mnemonics in cognitively unimpaired individuals and individuals with Alzheimer's dementia: A systematic review. *Neuropsychology Review*, 34(2), 455–477. <https://doi.org/10.1007/s11065-023-09585-4>
- Guillen, J. (2022). *Who lives, who dies, who tells your story? Hamilton as a case study for musical mnemonics* (Master's thesis, Toronto Metropolitan University). Toronto Metropolitan University Library. [https://rshare.library.torontomu.ca/articles/thesis/Who\\_Lives\\_Who\\_Dies\\_Who\\_Tells\\_Your\\_Story\\_Hamilton\\_As\\_A\\_Case\\_Study\\_For\\_Musical\\_Mnemonics/19161650/1](https://rshare.library.torontomu.ca/articles/thesis/Who_Lives_Who_Dies_Who_Tells_Your_Story_Hamilton_As_A_Case_Study_For_Musical_Mnemonics/19161650/1)
- Hoffmann, M., Schmidt, A., & Ploner, C. J. (2022). Musical expertise shapes visual-melodic memory integration. *Frontiers in Psychology*, 13, Article 1001234. <https://doi.org/10.3389/fpsyg.2022.1001234>

- Howe, J. H., & Baumgartner, E. S. (2024). Enhancing tonal-language learning through music: A review of experimental methods and melodic intonation therapy influences. *Review of Education*, 12(2). <https://doi.org/10.1002/rev3.3480>
- Moore, A. R., Petty, K. H., & Wang, P. L. (2022). Effects of musical mnemonics on working memory performance in individuals with mild cognitive impairment. *Journal of Neuropsychology*, 16(1), 67–85. <https://doi.org/10.1111/jnp.12342>
- Nakamura, N. (2022). *Musical mnemonics: Enhancing memory and retention through music*. [Publisher].
- Null, C. (2023). *The role of music in learning and memory retention*. [Publisher].
- Siagian, D. T., Maida, N., Irianto, D. M., & Sukardi, R. R. (2023). The Effectiveness of Mnemonic Device Techniques in Improving Long-Term Memory in Learning in Elementary Schools: A Literature Review. *Equator Science Journal*, 1(1), 24–30. <https://doi.org/10.61142/esj.v1i1.4>