



## **Games in the Sand: Ethnographic Documentation and Culture-based Pedagogy in Bantayan Island**

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### **ABSTRACT**

This study documented and analyzed the folk games of Bantayan Island, Cebu, with the following objectives: (1) describe the nature, origin, and mechanics of the games; (2) identify the cultural values of the games; and (3) design a lesson exemplar integrating traditional games in the sand in selected lessons in Senior High School. Using a naturalistic ethnographic design, the study documented 18 games in the sand clustered into games of fauna, games of flora, and biotic games. The ethnographic description of characteristics, domains, and values reflected in the game was collected from the narratives and perspectives of the research key informants: elderly, social studies, art, music, and physical education teachers, and children. Games of Flora are traditional games that use parts of a live plant, such as leaves, flowers, twigs, and midribs, as game objects. Games of Fauna are traditional games on the island that use live animals, such as beetles, cowries, and crabs, as game objects. Abiotic Games are traditional games that use any remaining objects found in the island's ecosystem. All three clusters of games reflect a profound relationship between human beings, their environment: flora and fauna, and the people that surround them. The games of fauna yield values of respect, responsibility, and perseverance, essential in a culture-based pedagogy. These eight traditional games of lora can develop agility and social interaction among children. The use of these biotic objects in the games teaches a cluster of values of patience, determination, perseverance, and responsibility, to enjoy the games they play. The integration of these games in social studies enhances learning through a culture-based pedagogy.

### **RESUMO**

Este estudo documentou e analisou os jogos folclóricos da Ilha de Bantayan, Cebu, com os seguintes objetivos: (1) descrever a natureza, a origem e a mecânica dos jogos; (2) identificar os valores culturais dos jogos; e (3) elaborar um modelo de aula integrando jogos tradicionais na areia em aulas selecionadas do Ensino Médio. Utilizando uma abordagem etnográfica naturalista, o estudo documentou 18 jogos na areia, agrupados em jogos da fauna, jogos da flora e jogos bióticos. A descrição etnográfica das características, domínios e valores refletidos nos jogos foi coletada a partir das narrativas e perspectivas dos principais informantes da pesquisa: idosos, professores de estudos sociais, arte, música e educação física, e crianças. Os Jogos da Flora são jogos tradicionais que utilizam partes de plantas vivas, como folhas, flores, galhos e nervuras, como objetos de jogo. Os Jogos da Fauna são jogos tradicionais da ilha que utilizam animais vivos, como besouros, búzios e caranguejos, como objetos de jogo. Os Jogos Abióticos são jogos tradicionais que utilizam quaisquer objetos encontrados no ecossistema da ilha. Os três grupos de jogos refletem uma profunda relação entre os seres humanos, seu ambiente (flora e fauna) e as pessoas que os cercam. Os jogos com elementos da fauna transmitem valores como respeito, responsabilidade e perseverança, essenciais em uma pedagogia baseada na cultura. Esses oito jogos tradicionais de Lora podem desenvolver a agilidade e a interação social entre as crianças. O uso desses objetos bióticos nos jogos ensina um conjunto de valores como paciência, determinação, perseverança e responsabilidade, para que elas possam desfrutar das brincadeiras. A integração desses jogos nos estudos sociais aprimora o aprendizado por meio de uma pedagogia baseada na cultura.

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## Introduction

The metaphor “life is a game” presupposes joviality – a cheerfulness that brings positive energy to life. Every individual plays a game to be happy and fulfilled. “Games bring out the child in us; where there are children, there are always games, and the world has never been without children” (Henson, 2011). This quote means that it is impossible to separate play from children (Burke, 2005). Playing games is the greatest privilege of a child. Games play a significant part in the exciting journey of childhood. A child’s world is centered on games. The liberty of imagination helps children broaden their thinking through games. The sharing of experiences is implanted in their hearts and minds when they play with their peers. The joy they bring cannot be measured; it leaves marks, and it is remembered until they grow up.

In the history of human civilization, games are among the oldest forms of art (Wanderi, 2011). Historical documents and artifacts revealed the existence of games, an essential part of society thousands of years ago. Traditional Sports and Games (TSGs) remain an important part of the nation’s intangible cultural heritage (Zou et al., 2023). The oldest complete game set found was an ancient Sumerian game called the Royal Game of Ur, dating from 2500 B.C. Scholars observed that Sumerian games’ clay tablets revealed their interest in tuning a strong physical body. Plato advocated that, by utilizing games, the young would become public-spirited and responsible citizens. The Greeks were the first great exponent of play in education (Johnson, 1998). Plato recognized the value of play in education. He believes that youth games are of political and national importance. Hence, this belief predisposed the integration of traditional games into the teaching of music, art, physical education, and social studies.

Playing games expresses the ancient culture of survival and artistic skills. In 1938, the Dutch historian and cultural theorist Johan Huizinga asserted that playing games is a basic element of human social existence and behavior (Huizinga, 2003; Anchor, 1978). He suggested that play is the primary and necessary condition of the generation of culture. Noting the importance of play in human development encourages educators to integrate games into the educational process. Prominent learning theorist Dewey (1944) pioneered the use of games as a teaching method for creating an interactive learning experience in the classroom. Further, UNESCO notes, “A crucial dimension of quality education is the relevance of curricular context, the diversity of local, cultural, and socio-economic realities” (UNESCO, 2024). Hence, the role of culture in education is imperative.

In the Philippines, Van Hoorn (1982) mentioned that Filipinos like to play games. This interest in different generations of children is observed across time and age. Some ancient Filipino games were traced to pre-Hispanic origins. Folk games vary depending on the availability of native materials or animals and the players’ interests. Filipinos played traditional games as a pastime, especially in open spaces. According to Dickie Aguado, Executive Director of Magna Kultura, “Forgetting about traditional games and putting an effort to introduce them in today’s younger generations is like cutting the connection between the

past and the present” (Magna Kultura, 2011). As an NGO, Magna Kultura Foundation promotes Filipino traditional games and analyzes why children stop playing them (Magna Kultura, 2011). There is a lack of organized sports activities for Filipino games in which children can play. Another contributing factor is the lack of neighborhood spaces where they usually play.

On the other hand, the proliferation of technology and Western ideas diverted children’s attention to other forms of entertainment that challenge teaching and learning (Ajala & Salawu, 2025), which remains one gap of the study. The social phenomenon affects the cultural use of games in the classroom with the advent of Roblox, Minecraft, and other interactive online games. For instance, the use of folk games in the classroom has been overtaken by these interactive online games. These games are critically endangered of disappearing (Zou et al., 2023) if nothing is done to rescue them. This study intentionally reasserts the revival, preservation, and promotion of these games as a component of Philippine culture. Though folk games are the country’s cultural treasures, these games tell stories about the past and connect friends, families, neighbors, and fellow Filipinos. The provisions of the 1987 Philippine Constitution mandate the “state to conserve, promote, and popularize the nation’s historical and cultural heritage and resources to preserve them for future generations of Filipinos and ensure the continuity of Filipino identity and cultural belongingness” (Constitution of the Philippines, 1987).

The Department of Education (DepEd) emphasizes teaching in basic education using localized and contextualized teaching strategies and instructional materials (RA 10533, 2013). One key feature of the K to 12 curriculum in the Philippines is localization and contextualization of teaching to protect and promote the right of every Filipino to quality, equitable, culture-based, and complete basic education (Panlaqui & Tayag, 2023; Saguin & Inocian, 2020). Philippine education aims to produce globally competitive Filipinos but is locally grounded. The National Commission for Culture and the Arts (NCCA) shall encourage every Filipino to preserve cultural heritage (RA, 10066, 2009). With the coordination of the Commission on Higher Education (CHED), NCCA offers scholarships in Cultural Education for public school teachers to instill pride in being a Filipino. This scholarship anticipates graduates pursuing the Master of Arts in Education major in Cultural Education (MAED-CulEd).

A better way to be culturally sensitive and responsive is to make traditional games part of learning in formal education in the country. Delos Reyes (2010) proposed that unless traditional games become part of school children’s curriculum, they would remain oblivious to indigenous games. Many scholars understand the advantages of games in learning. Games are interactive plays that teach goals, rules, adaptation, problem-solving, and interaction (Fuchshuber et al., 2011). These contribute to children’s overall development. Appropriate

teaching design is a necessary tool in the realization of quality education. Teachers need to be creative and innovative to ensure productive and meaningful learning.

However, gaps in the existing literature on folk games in the Philippines, especially in Central Visayas, are inadequate. Though Lacson et al. (2023) and Bejerano and Muyot (2018) consider games an integral part of culture, these are among the few studies vis-à-vis these gaps. Even if different types of games have emerged over time (Azhar & Sutapa, 2018), such as traditional Filipino games passed down through generations (Perez, 2021), games in the sand in Bantayan Island remain undocumented. How can these gaps be addressed? Archival and thorough documentation of the games is necessary to explore the context of instructional integration in music, art, physical education, and social studies.

Hence, this study documented and analyzed the folk games of Bantayan Island. Specifically, it answered the following objectives: (1) Describe the nature, origin, and mechanics of the games; (2) Identify the cultural values of the games; and (3) Design a lesson exemplar integrating folk games in the sand in selected lessons in Senior High School.

Who benefits from this study? The documentation and publication of the games in the sand benefit cultural anthropologists in the Philippines, adding to the plethora of traditional games. The lesson exemplars integrated with the games in the sand can benefit educators, enhancing their teaching in physical education, music, art, and social studies, while preserving these games across time and generations. For online developers, they can include games in the sand to create gamification teaching strategies and/or produce game-based teaching inspired by Filipino games of flora, games of fauna, and other biotic games.

The scope of documentation of the games in the sand is limited to the island of Bantayan, which does not represent the games of the entire province of Cebu and the Philippine archipelago in general. This excludes the traditional games in the interior of the island, but is limited to the games played by the children in the coastal villages only. The study precludes analysis of the benefits of games for the body, such as physical endurance, muscle tone, and development, leaving this area for physical education and medical science professionals to investigate. Its scope lies within cultural anthropology and education, where the integration of these games is explored to make teaching and learning meaningful.

### **Review of Related Literature**

The section introduces similar studies on games in the sand and how these are integrated into teaching and learning. It highlights games and the environment, philosophy and values of games, games and culture, and games in the instructional process.

### ***Games and the Environment***

Traditional games are uniquely different, influenced by their natural environment. Different natural conditions have nurtured varied sports cultures restricted by the geographical environment (Zuo et al., 2023). For instance, the use of bamboo strips in weaving the ball of Sepa Takraw is influenced by the tropical climate in Southeast Asia. The natural

environment, as an external factor, directly affects the traditional sports and games (TSGs) (Zuo et al., 2023). Games in the sand of Bantayan are influenced basically by the island's ecosystem. However, the natural environment, as an internal factor, causes a delay in TSGs formation and development (Zou et al., 2023).

### ***The Philosophy of Games***

Dewiyanti and Hertoety (2020) emphasized that traditional games have philosophical and moral messages. The values of physical coordination and interaction between individuals or among players of the game (Hassani & Afazeli, 2024) promote socialization and collaboration within the family and society.

### ***History of Philippine Games***

Charita A. Delos Reyes' *Social History of Children's Games in the Philippines* (2010) lamented that during the pre-Hispanic period (before 1565), incorporating games into indigenous physical activity embodied the rich cultural practices of early Filipinos. In these times, "people created TSGs out of survival needs" (Zuo et al., 2023). Similarly, a hunting expedition with bow and arrow among tribal groups has evolved into modern archery. During the Spanish colonization (1565-1898), games were used to propagate Christianity and the Castilian culture and heritage. During the American period (1898-1946), games were used in the consumer-oriented culture of the West. Games were also incorporated as a war strategy during the Japanese period (1941-1945/World War II). With all these changes, Reyes (2019) pointed out that the introduction of electric, electronic, digital gadgets, and computer programs that affluent families could only afford to play during the liberation period (1946) to the present contributed to the declining appreciation of TSGs. However, traditional games have survived and are played by some kids, despite no access to online technology in the country's interior and remote areas.

### ***Games and Culture***

Major studies reveal that traditional, ethnic, or indigenous games are shared communally within the Philippine context. In the book "A Study of Philippine Games" in 1980, author Mellie Leandicho Lopez compiled a major collection of traditional games. Lopez (1980) summarizes the early works of other authors on Philippine games, including works of Western chroniclers, antiquarians, and travelers. These consisted of little more than randomly collected texts appended to early surveys of the country's primitive people. Lopez (1980) included Antonio Pigafetta's record, who condemns the gambling involved in the game of cockfighting, and calls for a quick Christianization of the heathen Filipino to stop him from temptations and sins. Early works by Dean Worcester's "Field Sports among the Wild Men of Northern Luzon" became instrumental in convincing the U.S. Congress to keep the Philippines as an American colony to educate "the wild men of the Philippines."

Stewart Culin, an eminent American game authority, published his *Philippine Games* in 1990, a collection of sixteen games employing implements with ethnographic detail (Pezzati,

2016; Whittaker, 2012). Lopez (1980) cited numerous Filipino authors and began to study their games after the first graduates of American schools in the Philippines like G. Suva's "A History of Philippine Education in the Philippines," published in 1919, Philippine folk dances and Games by Francisca Reyes-Tolentino and Petrona Ramos in 1935 by Gabriel Bernardo, The Philippine Games for Physical Education issued by Bureau of Education, Philippine Recreational Games by Candido C Bartolome, Sungka-Philippine Variant of widely Distributed Game, Aramdo Malay's Games of the Philippines, E Arsenio Manuel's article Philippine Folk games and Pastimes and Maximo Ramos' The Games Children Used To Play.

### ***Games and Digital Technology***

Popular Western sports and the emergence of interactive digital entertainment exert tremendous economic, cultural, and social influence. Children are hooked on digital media and stay at home or in internet cafes for video games. The fear of the vanishing lore of folk games is linked with this development. Delos Reyes (2010) enumerates the benefits of folk games as high recreational value, strong educational value, body control, alertness, and social benefits on qualities of good sportsmanship, loyalty, cooperation, and a sense of responsibility.

Digital games are crafted by the toy industry with the corresponding ideological ramifications. Delos Reyes (2010) concludes that traditional and contemporary games are a hybrid of influences from Eastern and Western cultures. However, whatever innovation this blending has brought, it contributes much to the widening gap with our forebears. Major studies point out that traditional, ethnic games are shared communally within the Philippine context (Delos Reyes, 2010). The notion of traditional games implies several criteria: (1) folk traditionality, (2) spiritual ethos demonstration, (3) non-official structure on non-ruling strata, (4) unfixed form of documentation, and (4) players' collective and anonymous creativity (Delos Reyes, 2010). With this, playing games is considered an index of Filipino sociability. Delos Reyes (2010) added that with the emergence of digital media, children's digitized playgrounds become devoid of traditional Filipino games unless curricular changes are made. The children would remain oblivious to traditional games if no initiatives are initiated.

Chernaya (2013) quoted that the whole power of traditions of game culture, representing human, collective game experience, contributes to and enriches the development of an individual. She proves that games have cultural value, recognized for centuries by great scholars, anthropologists, and folklorists. She emphasizes that games are used in psychotherapy practices, the sports industry, tourism, entertainment, and recreation spheres, and the highly technological game industry. Undoubtedly, she concludes that the leading position in preserving game traditions shall belong to children. Culin (1897), in Pezzati (2016), struck the remaining preserved, unchanged, and stable culture of the Filipinos.

Magna Kultura Foundation (2011) advocates for games of our heritage and instills fundamental social values among the new generation. It is a great vehicle that instills patriotism, paves family bonding, and enlivens neighborhood communities. Many

organizations try many forms of expression to preserve Filipino culture, specifically games. UNESCO encourages the preservation of its cultural heritage, which is essential for the evolution of people's culture.

Magna Kultura Foundation's Advocacy is an organization that keeps the games alive in modern times (2011). Since the 1990s, Magna Kultura (2011) has used various media and arts to instill the Filipino Spirit among our fellow Filipinos, especially the young. In promoting history and patriotism, many people find that lectures, exhibits, stage performances, and reading materials are not enough approaches to learning. Adults look for more entertaining and exciting ways to gain knowledge and experience, and children are left to imitate a technologically savvy attitude.

Barnhardt and Kawagley (2005) underscore that blending the school's academic functions with the community's cultural patterns requires using the local culture as a foundational unit for teaching basic concepts in basic education, as a contribution to pedagogical knowledge presupposes that every teacher must master. Teachers seek new and challenging methods to introduce lessons into their classes. Social Studies teachers need effective integration, linking, and utilizing knowledge, skills, and values from different learning experiences, enhancing various techniques and instructional materials. Beane (1995) considered integration holistic; knowledge and skills drawn from all disciplines create a meaningful learning experience. Integrated learning enriches the instructional process and provides an authentic learning experience.

Morris and Obenchain (2002) integrated the arts into social studies teaching. They describe three ways to examine experiences in social studies through student involvement in scripted, interpretative, and original experiences. Dance, drama, painting, and music are models of social phenomena. Each method has the potential for students to construct new information. The arts communicate information to the students, helping them demonstrate information. A variety of artworks represent social issues and human conditions. The arts enrich social studies instruction, promoting opportunities for student growth in academic and social thinking.

This study is relevant because traditional games are also considered arts. Games are works of creative presentation that show a wide range of performance styles of folk creativity. In this study, the games are integrated into the lesson to construct knowledge and skills, taking students from passive recipients of information to active participants in learning. Gelisli and Yazici (2015) proved that games are the most effective learning process for children from one generation to another.

Proven by prominent learning theorists, including Lev Vygotsky and Jean Piaget, games are effective educational tools that emphasize the importance of play in the development of abstract, imaginative thinking. Friedrich Fröbel recognized the value of play in children's

development, and important skills such as problem-solving are developed as children are allowed to move freely and explore their surroundings.

These findings are significant for young adults in senior high school. As cited by Oliveira (2014), Plato affirmed this when he recommended playing the same games with the same rules as those who are accustomed to being ruled by good principles. The Greek philosopher praises the game as a useful means of teaching children and youth the laws of society. This philosophy supports this study, utilizing games in teaching social studies to prepare students to be good citizens in the future. Greek adults see games as a valuable way to prepare the young informally for adult tasks.

The Implementing Rules and Regulations (IRR) of the Enhanced Basic Education Act (Republic Act 10533) provides DepEd's effective implementation of the K to 12 curricula, which shall be contextual and global. Thus, the curriculum shall be flexible to enable schools to localize, indigenize, and enhance the curriculum in accordance with their respective educational and social contexts. One of the key features of the K to 12 social studies curriculum is the delivery of lessons through localization and contextualization. The concept of localization is based on the idea that students learn best when they experience meaning and relevance in the classroom. It is the adoption and process of relating the content of the curriculum and the instructional process to local conditions, environments, and resources. Contextualization is a process of presenting meaningful lessons and relevant context, based on previous experiences and resources (Abdulwahed & Nagy, 2009). Inocian (2015 & 2020) recommended that students be provided with relevant activities that would give adequate exposure for the development of higher-order thinking skills through culture-based pedagogies.

Blelzer (1991) concluded that sand plays a significant role in the classroom, improving concentration and involvement in academic tasks. The study of sand for therapeutic purposes proves its vitality to individuals. Taylor and Mulhill (1997) suggested that contextualization can strengthen links between the learning environment and the school, and between the home and the community. Gay (2010) asserted that culturally responsive teaching uses the cultural knowledge, prior experiences, and performance styles of diverse students to make learning more appropriate and effective for them. A culture-based education, when applied in K to 12 curricula, would help every learner understand cultural identity and heritage that contribute to the quality of their engagement in developing their community.

The goal of social studies education is to promote civic competence. Its objective is to help students understand their roles and develop individual skills needed for national development. It is a challenging task for Social Science educators to develop social understanding and civic efficacy in a culturally responsive way.

## **Research Methodology**

### ***Research Design***

This qualitative research used an ethnographic documentation of folk games through participant observation and interviews. After data gathering, the documentation of traditional games was curated, thereby providing an insight into the culture of Bantayan Island. The values and social relevance of the games in the sand are determined based on the key informants' narratives, as presented in the thematic vignette. An emic perspective was generated among the six (6) elderly folks, who were natives of Bantayan Island. An ethnographic understanding was developed through direct observation and narrative experience of six children who played these games for two weeks and were also selected as informants. To triangulate, an etic perspective focused on the outsider view of the analytical orientation frame of analysis of eight (8) teachers through Focus Group Discussions (FGDs). Lesson exemplar in the Senior High School Understanding Culture, Society, and Politics (MCSP) class at Santa Fe National High School integrated the selected games documented in the study.

### ***Research Participants***

To get the emic perspectives of the study, six (6) elderly people from Bantayan Island, who had extensive knowledge of these native games from their childhood, were selected as research informants using the following criteria: (1) aged 60 years old and above, (2) balanced gender of three males and three females, and (3) lived from the three towns of the island, who had vast knowledge of the games, using snowball sampling. To establish consistency of the narratives of the elderly group, the study also used convenience sampling of the six (6) elementary school children with the following criteria: (1) lived along the seashores of Barangay Marikaban, Santa Fe, Cebu, (2) aged 7 to 10 years, (3) balanced gender of three girls and three boys.

Another set of research participants were the eight teachers selected using a purposive sampling with the following criteria: (1) who taught physical education and social studies, focused on the relevance, values, and integration of games in teaching, (2) teaching for more than five years, and (3) knew the identified games. The etic view of six (6) Grade 11 research participants was utilized by sharing views and experiences on the games played by their generation and the folk games of the past generation. Six Grade 11 students, aged 16 to 18, three males and three females, shared their views and experiences on their present games and folk games. Using snowball sampling, these six students were selected from the classes of the eight faculty members. Each one was asked who their friends were who knew the games, and the next one was interviewed to get the required six participants. This ethnographic study did not require a bigger sample size because of these limitations: (1) dwindling popularity of the games that need ardent documentation, (2) a small elderly population that still had memories of the games, and (3) a small population of teachers who knew the games.

### ***Research Environment***

The study was conducted in three towns on Bantayan Island: Santa Fe, Bantayan, and Madridejos. One of the researchers had grown up on this island and was familiar with the games in the local context. Bantayan Island is located in the Visayan Sea. It is situated west of the northern end of Cebu Island, across the Tanon Strait. It has a total land area of 11, 244.68 hectares. It is the northernmost tip of Cebu, 139 kilometers from Cebu City. Bantayan Island is rich in aquamarine waters. It has a coastal area of 79.20 kilometers. Fishing is the main source of living on the island. It is a strategic position for the fishing industry.

### ***Research Instrument***

The study utilized four sets of data gathering: (1) One-on-one Interviews, (2) participant observation, (3) visual documentation, and (4) Focused Group Discussions (FGDs). During the interviews of the elderly, the young children, and the students, an interview guide on the games' relevant information and cultural dimensions contained the following questions: (1) What games in the sand did you know that you played when you were children? (2) What are the materials used in these games? (3) How were these games played? (4) What were the values and social relevance of the games, and (5) Do you think games are still relevant in the current times? These questions underwent validation by three experts in cultural anthropology, creative pedagogy, and physical education. Participant Observation was used to record the mechanics of how young children actually played the games in the island's shoreline neighborhoods. With their consent, their games were documented using videos and photographs.

Cross-matching the children's knowledge of the games with the Grade 11 students' memories established consistency in the games they played across generations. Two Focused Group Discussions (FGDs) among teachers prompted the integration of games in the instructional process. The first FGD explored the integration of the games in the instructional process. FGD guide includes the following: (1) setting an appointment for the participants on its purpose, (2) setting the venue, (3) short orientation, briefing, and expectations to set the participants, (4) FGD proper, (5) summarizing the responses for the participants' information, and (6) expressing gratitude for the valuable ideas and time spent for the FGDs. The second FGD validated the lesson exemplar, showing the integration of the games in the sand.

### ***Data Gathering Procedure***

Before conducting the research, a written communication was sent to the Island's Local Government Units (LGUs) in the towns of Santa Fe, Bantayan, and Madridejos to have access to the research informants. After the communication was approved, an appointment was conducted to schedule the interviews and the Focused Group Discussions (FGDs). An interview of elderly participants about the games they played during their childhood was conducted. They were asked to describe and demonstrate the games. Pictures and videos were taken and

curated. FGDs were conducted where children played their native games. Sources of the game were obtained from the informants; their names, ages, sexes, and occupations were kept confidential. The researcher selected games related to the topics in the Senior High School Teachers' Guide and made an exploratory lesson exemplar.

### ***Data Analysis***

Verbal data were analyzed using emic and etic analyses in ethnographic research. Game texts and contexts were recorded, noting the following: how the games adapt to new surroundings and the new time of setting, cultural notes, necessary information about patterns of Philippine culture, specifically local social customs, and values pertinent to the understanding of a particular game. Deductive and inductive coding were used to cluster the games in the sand.

After the games were documented, they were categorized according to descriptions, origin, mechanics, location, and age appropriateness using deductive coding (pre-determined codes). A tabular presentation of these predetermined codes was prepared to plot the deduced information of each of the documented games. The clustering of the games in the sand into three types: games of fauna, games of flora, and biotic games was analyzed using deductive coding. With the codes, the games were clustered into games of fauna when the object of the game uses anything from the animal kingdom, such as a beetle, shells, crabs, etc.

If the object of the game uses anything from the plant kingdom, such as leaves, flowers, midrib, etc., then these games are clustered into the games of flora. When the object of the game is anything found in the sand – stones, pebbles, sand, and other parts of dead plants and animals, the games are clustered as biotic games. The research team performed manual coding processes, including their counter-checking. It highlighted how these games embody traditions and their significance at present.

### ***Ethical Considerations***

The study secured compliance certification from the university's Ethics Review Committee (ERC). All information about the research informant was held confidential. To gain access to the research locale, an appointment with local officials in the village was secured. With the help of the village officials, separate appointments were made for the research participants as to the place and time of the interviews. A Letter of Informed Consent was signed for the elderly participants, including the teachers, and another Letter of Informed Assent was signed for the children. The rights of the research participants were not violated. Their interviews were confidential. The researchers stored interview transcripts, photos, and videos safely and confidentially while organizing the presentation and discussion of the data. More than a year to store these documents, while waiting for the completion of the report, writing of the research article, and revision for publication.

## Results and Discussion





### *The Games of Fauna, Mechanism, and Cultural Values*

Through the natural ecosystem, children's games reflect its bounty. Games of fauna using animals such as insects, beetles, fiddler crabs, and seashells. Table 1 presents four object-based games dubbed "Games of Fauna" because the main objects of the games are live shells, beetles, and crabs found on the island's shorelines. These games reflect the maritime culture of the island's ecosystem (Johnson, 1998).

The culture of *panginhas* or gleaning during low tides mirrors the games of fauna as revealed in *Lumba sa Umang* and *Lumba sa Agokoy*, using hermit and fiddler crabs. Similarly, traditional sports and games (TSGs) are closely related to labor, education, military, entertainment, health care, and religious sacrifice (Hill, 2010). In terms of location, the island's shorelines and shrubs reflect a profound relationship between human beings and their environment. The games show the cultural orientation of the families living on the island.

Parents assign male children games that require testing their strengths as boys, as these are measured in the competitive games of *Lumba sa Agokoy*, *Away sa Labog-labog*, and *Lumba sa Sibog-sibog*. Adventurous young boys roam the environment and observe the behavior of shells, fiddler crabs, beetles, and insects – reconnecting their imagination and playing with these fauna. Young girls play games with less strength in *Lumba sa Umang*, indicative of their feminine ways. These four games are played mostly by elementary school children aged 6 to 12 and some in the lower years of junior high school, aged 13 to 15.

**Table 1.**  
*Visual Presentation of the Games of Fauna*

Pictures	Name of the Game	Type	Descriptions	Object used	Location	Age Range
	<i>Lumba sa Umang</i> (Hermit Crab Race)	Object-based game	Children played this game for fun, using the hermit crab, moving outside the circle for patience	Hermit crab	shoreline	7-10 years old for Grades 2 to 5
	<i>Lumba sa Agokoy</i> (Fiddler crab race)	Object-based game Group game	Children played using a fiddler crab for bravery	Fiddler crab	shoreline	7-14 years old for Grades 2 to 9
	<i>Away sa Labog-labog</i> (Cockchafer fight)	Object-based game	Children played by catching a beetle, tying it with a string, and spinning it for excitement and thrill	Beetle from the coconut	shoreline	6-15 years old for Grades 1 to 10
	<i>Lumba sa Sibog-sibog</i> (Race)	Object-based game	It is a boy's game using an insect to compete in a race	Antlion insect	shoreline	6-12 years old for Grades 1 to 7

Note: Four Object-based Games of Fauna and the Ages of Children to join

Table 2 presents the steps and the cultural values in playing each of the four games of fauna. During games, children also increase their social competence and emotional maturity. They also learn to cope with their feelings when they are angry, sad, or worried. Games support children's creative imagination and offer a risk-free environment (Tikhanen et al., 2023; Henriksen, 2018).

*“When I was young, my cousins and I had good memories of playing Lumba sa Agokoy, Away sa Labog-labog, and Lumba sa Sibog-sibog. Our parents allowed us to play for determination and sportsmanship” (Elderly Informants 2-3).*

**Table 2.**

*Mechanics and Cultural Values of the Games of Fauna*

<b>Games of Fauna</b>	<b>Mechanics of the Games</b>	<b>Cultural Values reflected</b>
Lumba sa Umang or Seashells Race	The object of this game is the <i>umang</i> , or hermit crabs. The rule is simple: the player shouts, “Do not touch the hermit crab once the game starts moving”. The game’s goal is to wait for the hermit crab to move outside the circle. The crab that finishes the line wins in the game. The pre-game starts with players with hermit crabs on the seashore, and a big circle is drawn in the sand before the game begins. The game observes the following steps: (1) the leader gives a signal to the players to put their hermit crabs in the center of the circle, (2) the players wait until the hermit crabs move in different directions, and (3) the first hermit crab to move out from the circle is declared the first winner.	Patience, optimism, perseverance, and sportsmanship
Lumba sa Agokoy or Fiddler Crab Race	The game is played with boys. However, energetic girls can also play with it. The object of the game is the fiddler crab. The player shouts not to touch the crab or drag the fiddler crab, to avoid its bite. Achieving when the first crab reaches the finish line is the game’s goal; the player is declared the first winner. During the pre-game, the players catch the fiddler crab in the sand’s hole. First, they must be careful not to be bitten by the crab. Second, they tie the crab’s eye with a string. Third, the participants draw the starting and finishing lines in the sand. Fourth, the players place their crabs on the starting line before the game starts. The game proper begins with these three steps: (1) the leader gives a signal to start the race, usually by counting uno (one), dos (two), and tres (three), (2) the players guide their crab to move straight to the finish line through the string, and (3) the first crab reaching the finish line is declared the first winner.	Bravery, determination, and patience
Away sa Labog-labog or Spinning the Beetle	Two or more boys can play the game. The object of the game is the beetle tied with a string. The game starts when the players spin the beetle, as a rule. Its ultimate goal is to determine the loudest sound and the last to stop spinning. During the pre-game, players catch a cockchafer in the coconut tree, tie its two legs with the string, and wait for the leader’s signal to start the game. During the game proper, the leader, usually the eldest in the group, should give the signal by shouting uno (one), dos (two), tres (three) to start the game. Every player spins together around their beetles. The beetle with the loudest sound, like sounding a helicopter, and the last to stop spinning is the winner of the game.	Bravery, patience, determination
Lumba sa Sibog-sibog or Insect Mobility Race	The game is participated in by boys and girls. The object used is the <i>sibog-sibog</i> insect. The player should not touch the sibog-sibog or the insects’ Doodlebugs larvae once the game starts. Blowing the insect to make it move fast is the game’s ultimate goal. Before the game starts, the players catch the sibog-sibog” insect in the sand’s hole. Drawing starting and finishing lines in the sand is the initial preparation for the game. The game proper starts when the leader gives the signal, and the participants put their insects together on the starting line. They blow their insect to move towards the finishing line until they are adjudged winners.	Patience, determination

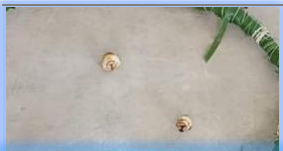






*Note: Illustrated mechanics of the four games of fauna and their cultural values that children learn*

This is also confirmed by the children who were asked to demonstrate the games; they said:

*“When they mention that the aforementioned games of fauna can develop their patience, determination, perseverance, bravery, and sportsmanship” (Children Informants 1,3, 5 & 6).*

**Table 3.**

*Visual Presentation of the Games of Flora*

<b>Pictures</b>	<b>Type</b>	<b>Name of the Game</b>	<b>Descriptions</b>	<b>Object used</b>	<b>Location</b>	<b>Age Range</b>
	Object-based game	<i>Turumpo ng Potot</i> (Coconut flower top)	It is played by boys, using a coconut flower top and a stick	Coconut flower top	shoreline	7-12 years old for Grades 2 to 7
	Object-based game	<i>Lumbaay Tuhog</i> (Tipping Race)	A guessing game played by young girls, using midrib sticks, forming circles buried in the sand	Midribs of the coconut leaves	shoreline	5-12 years old for Kindergarten Grades 7
	Object-based game	<i>Lumba sa Sakayang Daoy</i> (Coconut Spathe Boat Race)	It is played by boys using coconut spathe as boats, racing through sea currents.	Coconut spathe	shoreline	5-12 years old for Kindergarten to Grade 7
	Object-based game	<i>Palabok sa Kolo</i> (Breadfruit Leaf Fighting)	A game played by boys using breadfruit leaf fighting like a cockfight with stick blades in the leaf's petioles	Breadfruit leaf	shoreline	7-14 years old for Grades 2 to 9
	Jumping game	<i>Latin</i> (Jumping over the Vine)	A game uses a jumping rope made from natural vines	natural vines	shoreline	8-16 years old for Grades 3 to 11
	Running Game	<i>Paligid sa lukay</i> (Coconut leaf wheel race)-	A game played by boys competing in the race of the coconut leaf wheel through the monsoon wind or after a typhoon	Coconut palm trees	shoreline	6-10 years old for Grades 1 to 5
	Running Game	<i>Labok sa Balabadsa lukay</i> (Coconut Leaf Wind Fan Fight)	A game where boys fight their coconut leaf fans through the monsoon wind	Coconut palm trees	shoreline	7-12 years for Grades 2 to 7



Object-based game	<i>Palupad sa bunga sa Kandang-Kandang</i> (Ripe Fruit Race)	A game played by both girls and boys, blowing the ripe fruit of the <i>kandang-kandang</i> in the air without touching the ground	Shrubs	shoreline	6-12 years old for Grades 1 to 7
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Note: Eight Games of Flora and the Ranges of Ages of Children to join

As affirmed by Ratchford and Paw (2025), these values are associated with grit and intellectual perseverance, which shape cognitive character. Games-based Character Pedagogy (GBCP) also supports this notion, when “learning outcomes of respect, responsibility, and perseverance resemble traditional games outcomes” (Dudley, 2025).

### ***The Games of Flora, Mechanisms, and Cultural Values***

Table 3 presents the eight games of flora played using any part of plants growing on the island. As object-based games, five of these games use coconut palm leaves found on the island. The *Trumpong Potot* utilizes coco palm buds; *Lumbaay Tuhog* uses its midrib; *Lumba sa Sakayang Daoy* uses its shroud; *Paligid sa Lukay* and *Labok sa Balabad sa Lukay* use the coconut leaves. Coastal games promote greater development of gross motor mobility compared to games played on yards and asphalted grounds (Moore et al., 1986). The presence of these games implies joy and fun among the children on the island.

The three games are played using the parts of breadfruit, vines, and shrubs; two are running games (*Paligid sa Lukay* and *Labuk-labok sa Palabad sa Lukay*), and one is a jumping game (*Latin*). These eight games have survived for several centuries in the island’s closed environment – away from the influence of other cultures in the archipelago. Closed environments: mountains and islands shaped and contributed to the country’s unchanged culture and local folklore (Tho, 2026; Taylor, 1949; Rios, 2022). These eight games of flora indicate the children’s closeness to the available flora in the island’s natural environment. These eight traditional games can develop agility and social interaction among children in elementary grades.

**Table 4.**  
*Mechanics and Cultural Values of the Games of Flora*

<b>Games of Flora</b>	<b>Mechanics of the Games</b>	<b>Cultural Values reflected</b>
Turumpong Potot or Coconut Male Flower Top	This game is played by boys, using coconut male flowers and midrib sticks. Spinning fast with enough force without bending remains the game’s ultimate goal. During the pre-game, the players gather coconut male flowers, usually fallen from the coconut flower. Peel off its upper covering and place a stick at the top tightly. Draw a circle on the sand, like a spinning ground for the race. The game proper starts when the leader gives a signal. Each player spins their tops together before placing them in the sand. The top spins outside the circle. The top that knocks out first loses. The top that lasts to stop spinning is the winner.	Creativity, patience

Lumbaay Tuhog or Tipping Race	The game is played by two or more players using coconut midribs and sand. Finding the circles of coconut midrib buried in the mound of sand using sticks remains the game's primary goal. There are three rules of the game: (1) the player covers their eyes when the leader buries the midrib circles under the sand, (2) the players who find several circles kept under the sand win the game, and (3) the winners flick the loser's fist based on the number of circles the winners have found. In the pre-game, the players gather coconut midribs to form a circle. They bury the circles in the sand before the competition starts. During the game, finding the circle of coconut midribs in the sand with sticks remains the game's greatest challenge. The player who finds the most number of circles wins the game.	Intuition, patience
Lumba sa Sakayang Daoy or Coconut Spathe Bowl Boat Race	The game is played by male children using a <i>daoy</i> or a coconut spathe bowl. The game observes these rules. First, this game should be played during monsoons or after typhoons when the sea current is fast-flowing. Second, the player should not touch the boat once the game has started. The game aims to determine when the first boat reaches the bank; the player is declared a winner. During the pre-game, game participants gather the dried coconut shrouds. They cut and decorate their coconut shroud to look like a small boat. They find a place where the sea current is fast and windy. They put a stone or a stick marker at the start and finish line. The game starts when participants hold their boats and wait for the leader's signal. The first boat to reach the finish line is declared the winner.	Creativity, determination
Palabok sa Kolo or Breadfruit Leaf Fighting	This game is played by two or more male and female children, using breadfruit leaves of the same size and a stick or coconut midrib as the main props. The main rule of the game is not to go beyond the line, which is agreed upon for the competition. The game's goal is to target the leaf to hit the other leaf, which is placed on the opposite side. The participants gather the fallen breadfruit leaves of the same size. They put a stick on the petioles tightly; they determine the first player by throwing the breadfruit leaf, the farthest leaf is the first player, and the closest is the last player to hit. The players put their leaves on the sand except for the first player. During the game, the first player goes to the assigned line. When the leader signals, the player hits the opponent's leaf. If he misses it, he puts his leaf; the second player hits the other leaves. The leaf with more damage is the loser, and the leaf with less damage emerges as the winner.	Perseverance, sportsmanship
Latin or Jumping over the Vine	The game uses a 3- to 4-meter-long endemic vine for jumping. The player should not touch or step on the vine rope. The loser is punished by crawling on the ground. Synchronizing the players' movements while jumping over the spinning rope is the game's goal. During the pre-game, players gather the vine. They remove the leaves and retain the stem to be used as a rope. They choose a partner and assign roles, like a mother, who is usually the eldest and has mastery of the game, and a baby, who is the youngest. During the game proper, the two players hold opposite ends of the rope and turn the rope clockwise or counterclockwise. The first player, usually the "mother," jumps to synchronize her movement with a spinning rope. The other players, the "baby," may jump and join the first player. If anyone steps on the rope or touches it, she exchanges roles with the player holding the rope. The group that steps or touches the rope is declared a loser.	Perseverance, patience, and a sense of responsibility
Paligid sa Lukay or Coconut Leaf Wheel Race	The game is played with boys and girls. The materials used in the game are 12 inches of coconut fronds and an 1/2 inch of its midrib. The player should not touch the coconut leaf wheel once the race has started. Usually, this game is played during monsoon time or after a tropical typhoon, when it is windy. The goal of the game is when the first wheel to reach the finish line emerges as the winner. The participants shall perform the following: (1) gather fresh coconut leaves, (2) take off the coconut midrib, (3) form the leaf into circles that resemble wheels, (4) form by clipping the edge with a coconut midrib on the fronds to form a circle or a wheel, and (5) stay in the starting line holding their coconut leaf wheel. The leader signals the start of the game by putting the wheel on the sand. The strong monsoon wind carries the wheel. The first wheel to reach the finish line is declared a winner.	Creativity, patience
Labok as Palabad sa Lukay or Coconut Leaf	The game uses coconut fronds and the midrib for holding. The players hold a wind fan. The leader signals that they hold their fans facing the strong monsoon wind to start the game. The player attacks the	Creativity, perseverance

Wind Fan Fight	opponent's fan by hitting it with his. The fan that stops turning first is the loser, and the fan that keeps spinning is declared the winner.	
Palupad sa Bunga sa Gunahon Kandang-Kandang	The game is played by the children in the village. They use the plant's fruit, a hard achene covered with stiff hairs that have a feathery, plume-like white pappus at one end of the plant, kandang-kandang ( <i>Tridax Procumbens</i> ) or tridax daisy, as the main object of the game. Not allowing the players to drop the flower and touch the ground is the basic rule of the game. Its goal is to blow the flower in the air without touching it on the ground. They agree on the game direction, usually following the monsoon wind. The leader signals the players to blow their flowers together. They keep blowing it so that it does not fall on the ground. The flower that falls on the ground first is the loser; the last flower to fall is the winner.	Creativity, patience, and determination

*Note: Illustrated mechanics of the eight games of flora and their cultural values that children learn*

Table 4 presents the mechanics and cultural values of the Games of Flora. Available plants on the island's shoreline are essential for playing these eight (8) games of flora. The presence of coconut palms on the island shapes the enjoyment of five games out of the eight games of flora. Coco palms and breadfruit trees remain abundant in the island's tropical landscape. The isolated island landscape teaches game players creativity. They create boats, win fans, and ropes from a coconut palm, as shown in Table 3. All the elderly informants said:

*"No other choice in the games and the objects used, because we rely on what is available on the island" (Elderly Informants, 1-6).*







Above all, the use of these biotic objects in the games teaches a cluster of values of patience, determination, perseverance, and responsibility, to enjoy the games they play. The natural environment provides diverse values that players experience (Prabucki & Rozmiarek, 2025). The nature of these games on the island is biophilic, which promotes eco-literacy, creative thinking, and environmental education (Maulidah et al., 2021; Apriana & Wulundari, 2026; Tikhanen et al., 2023; Henriksen, 2018) and a high level of sensory impact compared to games played in asphalted grounds (Moore et al., 1986). These games remain an integral part of the indigenous knowledge system of Bantayan Island residents, which has social and cultural implications for their identity and pride of place. As quoted, "Indigenous Knowledge System (IKS) encompasses the experiences and knowledge of indigenous peoples about their environment, which has technological, cultural, and socio-economic implications" (Ajala & Salawu, 2025). This quote implies that the games of flora in the sands of Bantayan are a system of collective memory, which needs ardent documentation and preservation for the next generation. Through these games, other outdoor learning activities can be promoted in physical education, art, and other civic engagements.

### ***The Biotic Games, Mechanisms, and Cultural Values***

Table 5 presents six games classified as biotic. Biotic games use inanimate objects or other nonliving (deceased) parts of plants or animals in the natural ecosystem (Moore et al., 1986). Five of these games: *Salida sa Kinhasun*, *Buakay sa Kinhasun*, *Taksi sa Kinhasun*, *Kuro*, and *Sudsod*, use cowries and other shells. The island's shorelines provide these cowries and shells for children to play and enjoy. "Kuro" is a unique game among six players because

it focuses on the cognitive development of the players, where mathematical skills in counting are its unique features. *Salida sa Kinhasun* and the *Bakingking* are games for entertainment played by female children. These games promote the creative imagination. The *Buakay sa Kinhasun* and the *Buakay sa Bola na Babay*, the *Taksi sa Kinhasun* are games of strength, requiring maximum focus to break the shells. These six games reflect the island's simplicity and the children's experiences in an insular cultural context. This context means that abiotic factors may influence the game's cultural practices. These findings are supported by Hassani and Afazeli (2024) and Moore et al. (1986), who claim that traditional games improve motivation, self-confidence, knowledge, understanding, and increase physical literacy.

**Table 5.**  
*Visual Presentation of Biotic Games*

Pictures	Type	Name	Descriptions	Object used	Location	Age Range
	Object-based game	1. <i>Salida sa Kinhasun</i> (Drama Shell)	It is a group game usually played by girls. It is more of an entertainment activity that requires creativity and acting skills.	cowries	Shoreline	7-15 years old for Grades 2 to 10
	Object-based game	2. <i>Kuro</i> (Jack Shells)	It is a girl's game; a local version of Jack's game using seashells. It provides enjoyment and develops counting and mental skills.	Jack shells	Shoreline	6-16 years old for Grades 1 to 11
	Object-based game	3. <i>Buakay sa Kinhasun</i> (Smashing Shells)	It is an individual competitive game usually played by boys of varied ages. <i>Buakay</i> means smashing the shells.	Cowries	Shoreline	6-16 years old for Grades 1 to 11
	Object-based game	4. <i>Taksi sa Kinhasun</i> (Knocking out Shells)	It is a competitive game that aims to knock out the shell from the square. It gives the thrill of hitting the opponent's master shell.	Cowries	Shoreline	8-14 years old for Grades 3 to 9
	Object-based game	5. <i>Sudsod</i> (Hops Shells)	It is a competitive game played by girls that requires balancing skills.	Shells	Shoreline	7-12 years old for Grades 2 to 7
	Object-based game	6. <i>Buakay sa Bola na Baybay</i> (Smashing Sand-balls)	This is a competitive game using force to smash sand-balls of the opponent	Sand balls	Shoreline	6-16 years old for Grades 1 to 11

Note: Six Object-based Biotic Games and the Ranges of Ages of Children to join

Table 5 presents the mechanics and cultural values of biotic games in the sand. Typically, boys played games on asphalted grounds, and girls played in the grassy yard; both genders played coastal games in areas called the “dirt region” (Moore et al., 1986). Hence, biotic games played by both genders develop values of:

*“patience, perseverance, determination, concentration, alertness, honesty, and sportsmanship” (Elderly Informants 2 & 8).*

**Table 5.**

*Mechanics and Cultural Values of Biotic Games*

<b>Biotic Games</b>	<b>Mechanics of the Games</b>	<b>Cultural Values reflected</b>
Salida sa Kinhason or Shell Drama	This game is played using seashells, sand, and seaweeds. The rule of the game is to create an entertainment drama using shells. Its goal is to attract a larger audience with drama. A player with a large audience in the group is the winner. Before the game starts, the children form two or more groups. The leader is usually the eldest and volunteers to lead the game. The group agrees with the drama theme and the character. The group members collect shells and seaweeds on the seashore. The shells to be collected are suited to the character played in the game. Each member has a chance to choose a character. Everyone in the group should help build sand houses. During the game proper, the other members of the group serve as the audience while the leader manipulates the shells in real time to create the illusion of life. The leader operates the shell directly by holding it and acts as a game master who selects the actors who play their parts and names the shells based on the members' names. The leader puts the different shells in their assigned places, serving as a storyteller. The game master starts the drama by holding the shell and starts saying that the audience believes that the shell has life. The group with the largest audience is the winner	Creativity, sense of responsibility
Kuro or Jack Shells	Kuro is played by female children using 11 cowries. Each player is given an equal number of shells. One of these shells, larger than the rest, is called the ‘mother shell.’ The player must catch the mother shell as it falls after she tosses it into the air, and pick the required small shells. Dropping any shell means losing the opportunity for the player’s next turn to play. The one who loses her turn has to wait until everyone has had their turn before she can play again. Completing the game without missing a step to earn a “baby shell,” the player with the highest number of shells wins. Before the start of the game, the players form a circle or face each other sitting on the ground. The player throws the shells in the air and catches them with her hand. She tries not to drop any shells. The player who drops the fewest number of shells starts the game. During the actual game, the player throws the mother shell into the air, quickly spreads the stones on the ground, and then catches the “mother shell”. The player tosses the “mother shell” into the air and picks up the small shells one by one. After this, the small shells are picked by two, later by three, then by four, and ... up to ten. The moment the first player misses a step, the turn goes to the next player. The next player starts from the beginning. Each time a player completes the game without missing a step, she gets one shell as her baby. At the end of the game, the player with the greatest number of baby shells is declared a winner. Winners penalize the losers by guessing the correct number of shells in the winner’s hand. If the former guesses right, she is not punished; if she fails, the winner flicks the loser’s closed fist as many times as the number of shells that the loser fails to guess.	Concentration, mental alertness, and sportsmanship
Buakay sa Kinhasun or the Smashing of the Shells	The game is played by two or more boys using cowries. As a rule, the hitter has to smash to crack the opponent’s shell. Making each player break the other's shell is the goal of the game. The player whose unbroken shell is left on the string is the winner of the game. The preparation before the start of the game comprised the following: (1) a string is inserted through the mouth of the shell, and (2) the player who can throw the snail the farthest is declared the first player. During the game, the player who throws the nearest shell holds one end of his string	Patience, determination

	with the shell dangling downward. The first player holding the tail end of his string swings his shell and hits the other shells. If he fails to crack the other shell of their opponent, the other player takes their turn to crack the shells. The players keep playing until one of the shells breaks and can no longer stay on the string.	
Taksi or the Knocking out of Shells	The game is played using <i>litob</i> or <i>acra ventricosa</i> clamshells or marine bivalve mollusks. As a rule, each player knocks out as many shells as possible; if they miss, they lose their turn, but if they knock out the master shell of the opponent, they win. The player getting the most shells is the winner. Knocking out the <i>litob</i> shell and the opponent's master shell inside the square is the game's main goal. Before the start of the game, a square is drawn on the ground. Each of them contributes an equal number of shells. One by one, each participant throws their master shell on the square. If the landing of the master shell is hit at the most central part of the square, the participant who throws it is declared the winner. All participants put their agreed number of shells and the master shell of the opponent in the drawn square. During the game proper, the first player puts one foot on the toe line, aims at the shells in the square, and then throws his master shell on them. He gets all the shells and removes them from the square. If he knocks and throws out the master shell of the opponent, he wins, but if he misses the target, he loses his turn and puts his master shell in the square. The second player gets his master shell in the square and repeats the movement. If he misses the target, he is put out of the game, and he waits for his turn to play. The first player goes back, hurls his master shell again, and repeats his movement. The game ends when all the shells, especially the opponent's master shell, are thrown out. Whoever succeeds in throwing out the master shell gets all the shells in the square.	Patience, perseverance
Sudsod or Hop Shells	The game is played by two or more girls using a flat shell. As a rule, the shell should not fall from any part of the player's body. The goal is to hop back and forth on one foot through the entire square maze. One player hops to each square and pushes the shell forward using her toe. Drawing the whole square maze in the sand and preparing the flat shells are done before the game begins. During the game, the players throw their shells to the master line; the nearest shell on the line is the first player to play. The player hops through the whole maze while pushing the shell using her toe. If the player's shell cannot reach the target maze, she misses her turn, and another player does the same movement. The player who completes all the steps is declared a winner.	Balancing skills, patience, and determination
Buakay sa Bola sa Baybay or The Smashing Sand-balls	The game is played by two or more boys using sand-balls. As a rule, the player hits the opponent's sand-balls. The player is not allowed to put stones inside the sand-balls. Its goal is to hit the sand-balls; the harder the sand-balls, the greater the chance to win. Before the start of the game, the following tasks are to be prepared: forming sand-balls from the mud, and ashes to be covered by refined sands. These formed sand-balls are buried in the sands. Dig a shallow hole and identify the first two players to compete by shaking one's hand. During the actual game, the first two players hold their sand-balls at the hole's edge and wait for the signal to start. Once the leader gives the signal, he releases the sand-ball by colliding it with enough force. The sand-balls with less damage are the winners of the first round and wait to compete for the final round. The next two players compete with each other. The winners of the different rounds compete in the final round; the player with the least damaged sand-ball is the winner of the game	Honesty, sportsmanship

*Note: Illustrated mechanics of the six biotic games and their cultural values that children learn*

Chernaya (1998) affirmed that games' cultural values have been recognized over the past generations. While children need active games for healthy physical development, physical benefits are particularly valuable. Active play helps them build or maintain energy, joint flexibility, and muscular strength.

### **Culture-based Lesson in the Integration of Games in the Sand**

During the Focused Group Discussion on traditional games integrated into the lesson exemplar in Music, Arts, Physical Education, Health, and Social Studies, eight of these Teacher Informants (TIs) teaching Grade 11 were asked about their knowledge of the 18 documented games and which of these games can be integrated into the aforementioned subjects.

**Table 6.**

*Traditional Games Integration in the Academic Subjects*

<b>18 Traditional Games</b>	<b>Academic Subjects to be Integrated</b>
Lumba sa Umang or Seashells Race	Social Studies (TKIs 2,4,7)
Lumba sa Agokoy or Fiddler Crab Race	Social Studies (TKIs 2,4,7)
Away sa Labog-labog or Spinning the Beetle	Music (TKIs 4 & 8)
Lumba sa Sibog-sibog or Insect Mobility Race	Social Studies (TKIs 2,4,7)
Turumpong Potot or Coconut Male Flower Top	Social Studies (TKIs 2,4,7)
Lumbaay Tuhog or Tipping Race	Social Studies (TKIs 2,4,7)
Lumba sa Sakayang Daoy or Coconut Spathe Bowl Boat Race	Physical Education (TKIs 5 & 8)
Palabok sa Kolo or Breadfruit Leaf Fighting	Social Studies (TKIs 2,4,7)
Latin or Jumping over the Vine	Physical Education (TKIs 3,5,8)
Paligid sa Lukay or Coconut Leaf Wheel Race	Physical Education (TKIs 1,5,6 & 8)
Labok as Palabad sa Lukay or Coconut Leaf Wind Fan Fight	Physical Education (TKIs 1 & 2)
Palupad sa Bunga sa Gunahon Kandang-Kandang	Art (TKIs 4 & 8)
Salida sa Kinhason or Shell Drama	Art (TKIs 4 & 8)
Kuro or Jack Shells	Art (TKIs 4 & 8)
Buakay sa Kinhasun or the Smashing of the Shells	Social Studies (TKIs 2,4,7)
Taksi or the Knocking out of Shells	Social Studies (TKIs 2,4,7)
Sudsod or Hop Shells	Social Studies (TKIs 2,4,7)
Buakay sa Bola sa Baybay or The Smashing Sand-balls	Social Studies (TKIs 2,4,7)

*Note: The cluster of integration of the 18 Traditional Games in the Sand to the Academic Subjects as perceived by the Teacher Key Informants*

They said that these games are unpopular today because of the competition from technology. While these games are familiar to them, they can hardly play them due to their physical and health conditions. However, they still have memories of playing these games before. They mentioned the games integrated in the following subjects, as shown in Table 6.

Table 6 presents the 18 Traditional Games in the Sand. Fifty-six (56) percent can be integrated into social studies, 22 percent into physical education, 17 percent into art, and 5 percent into music. In Social Studies, the word *lumba* is significant in all of these games: *Lumba sa Umang* or Seashells Race, *Lumba sa Agokoy* or Fiddler Crab Race, *Lumba sa Sibog-sibog* or Insect Mobility Race, and *Lumbaay Tuhog* or Tipping Race. In English, *lumba* means competition – a race.

The *Lumba sa Umang*, when played, is integrated into the role of Iran and Israel in the Gulf region. While the *Lumba sa Agokoy* is integrated in the discussion of the powers of the United States of America and Russia, this game mirrors how their powers influence and encroach on the affairs between the North Atlantic Treaty Organization (NATO) and the European Union (EU). The *Lumba sa Sibog-sibog* or Insect Mobility Race is a game that depicts the performance of the Philippines and other ASEAN countries in economic development, political stability, and academic performance. After playing the game of

*Lumbaay Tuhog*, the social studies can connect this to the key players of globalization between China and the United States in terms of dominance and control.

The word *buakay* means to break. This word is essential to the success of the games: *Buakay sa Bola sa Baybay* (The Smashing Sand-balls) and *Buakay sa Kinhasun* (the Smashing of the Shells). After playing these games, the social studies teacher can relate this to the encroachment of the United States of America over the sovereignty of Venezuela, and their attempts to destroy the state of Iran. The game *Taksi* (the Knocking out of Shells) is integrated into the discussion of US control over Venezuela since the capture of President Nicolas Maduro. After playing *Turumpong Potot* or Coconut Male Flower Top, the social studies teacher integrates the resistance of some countries to President Donald Trump's imposition of high tariffs. After playing *Sudsod* or Hop Shells, the social studies teachers can bring about discussions on Iran's succession of Mojtaba Khamenei after the death of his father, Ali Hosseini Khamenei, as the supreme leader of the country.

When *Lumba sa Sakayang Daoy* or Coconut Spathe Bowl Boat Race, *Latin* or Jumping over the Vine, *Paligid sa Lukay* or Coconut Leaf Wheel Race, *Labok as Palabad sa Lukay* or Coconut Leaf Wind Fan Fight are played, these games are integrated in motor development in Physical Education. The game *Palupad sa Bunga sa Gunahon Kandang-Kandang* can be captured in the integration of painting. After playing *Salida sa Kinhason* or Shell Drama, it can be best integrated into the characters and setting of a story or novel selected by the teacher. After playing the Kuro game or Jack Shells, the teacher can integrate this into the abstract painting of shells in the shoreline ecosystem. The sounds *Away sa Labog-labog*, (Spinning the Beetle) game produces during the spinning are integrated into music, especially in the lesson on rhythm.

### ***The Culture-based Integration into DepEd's DLP Template***

From the ethnographic documentation of the games in the sand, the development of the lesson exemplar is indeed exploratory. The exploration of this exemplar highlights the use of place-based education. Place-based education promotes sustainability in the coastal environment (Calliera et al., 2026), experiential, and contextualized learning (Kolb & Kolb, 2018; Konak et al., 2014; Kosir et al., 2008; Raschick et al., 1998; Svinicki & Dixon, 1998; Saguin & Inocian, 2020). Table 7 illustrates four (4) games in the sand integrated in the lesson on Relativism in Cultural Understanding.

**Table 7.**

*Guide for Integration of Games in the Sand in Understanding Culture, Society, and Politics for Social Studies Grade 11*

<b>Sample Lesson Plan in Understanding Culture, Society, and Politics</b>		<b>Duration</b>
Content Standard	The learners demonstrate an understanding of: (1) culture and society as anthropological and sociological concepts, and (2) perspectives in/approaches to the study of culture and society (i.e., comparative, historical, structural-functional, interpretive, critical)	1 week



What actions will you take for the continuous corruption of culture?		
Assessment	Learning Activity 11. Exhibits of the Infographics using prepared rubrics	Day 5 (Friday)

*Note: Sample Lesson Plan integrating Games in the Sand based on the Curriculum Guide of the Core Subject of MCSP from the Department of Education*

The integration of the games in the sand follows the required Lesson Plan Template of the Department of Education (DepEd). Table 5 presents the sample Lesson Plan in Social Studies, with emphasis on the 21<sup>st</sup>-century skills of critical thinking, communication, collaboration, and creativity. Table 7 presents the integration of some of these games in the sand in the Grade 11 Social Studies on Understanding Culture, Society, and Politics (UCSP).

The sample lesson plan in Table 7 shows a complete guide of the intended learning outcomes based on the Curriculum Guide of Understanding Culture, Society, and Politics (UCSP) – one of the core subjects in Grade 11 Senior High School. The duration of this plan is one week, separated into days for introductory, developmental, and culminating activities. Every episode of learning activities culminates with ‘*reflections on*’ (knowledge and understanding), ‘*reflections in*’ (feelings and emotions), and ‘*reflections about*’ (actions and recommendations). This exemplar is useful for all teachers teaching MCSP to enhance active learning, using traditional games as a tool.

## Conclusion and Recommendations

The maritime culture of the residents of Bantayan Island reflects the ethnographic documentation of 18 traditional games, comprising three clusters: flora, fauna, and biotic. The holistic picture of biotic games on the island mirrors the island’s biodiversity and the interaction of children in the environment. Games of Flora are traditional games that use parts of a live plant, such as leaves, flowers, twigs, and midribs, as game objects. Games of Fauna are traditional games on the island that use live animals, such as beetles, cowries, and crabs, as game objects. Abiotic Games are traditional games that use any remaining objects found in the island’s ecosystem. All three clusters of games reflect a profound relationship between human beings, their environment: flora and fauna, and the people that surround them. The games of fauna yield the values of respect, responsibility, and perseverance, essential in a character-based pedagogy. These eight traditional games of lora can develop agility and social interaction among children. The use of these biotic objects in the games teaches a cluster of values of patience, determination, perseverance, and responsibility, to enjoy the games they play.

The integration of traditional games in teaching a specific lesson in Understanding Culture, Society, and Politics (UCSP) is relevant in a culturally vibrant society such as the Philippines. It offers immense possibilities for teachers and learners to maximize holistic and active learning. Recognizing the limitations of the ethnographic documentation of the study, the following are the recommendations: 1. Quasi-experimental research will be conducted to test the effectiveness of the integration of traditional games in students’ performance in social studies, art, music, and physical education. 2. Orientation of basic education teachers on the

use of these 18 games in the classroom that promote active learning. 3. Local government units will support the preservation of games in the sand and provide budget allocation in their conservation efforts with other stakeholders. 4. Replication of other studies like this in the other provinces of the country.

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