

GRUŻEWSKA-PIOTROWSKA, Kinga, PAJAŁ, Monika, HUBKA, Joanna & WCISŁO, Wojciech. Marfan's syndrome – inheritance, diagnostic methods, management in disease. *Quality in Sport*. 2023;14(1):23-36. eISSN 2450-3118. DOI <https://dx.doi.org/10.12775/QS.2023.14.01.002> <https://apcz.umk.pl/QS/article/view/43860>

The journal has had 20 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. 32582.
Has a Journal's Unique Identifier: 201398. Scientific disciplines assigned: Economics and finance (Field of social sciences); Management and Quality Sciences (Field of social sciences). Punkty Ministerialne z 2019 - aktualny rok 20 punktów. Załącznik do komunikatu Ministra Edukacji i Nauki z dnia 21 grudnia 2021 r. Lp. 32582. Posiada Unikatowy Identyfikator Czasopisma: 201398.
Przypisane dyscypliny naukowe: Ekonomia i finanse (Dziedzina nauk społecznych); Nauki o zarządzaniu i jakości (Dziedzina nauk społecznych).
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The authors declare that there is no conflict of interests regarding the publication of this paper.
Received: 05.05.2023. Revised: 25.05.2023. Accepted: 27.05.2023. Published: 27.05.2023.

The Role of Mancala Games in Human Evolution, Cultural Development, and Education: An Anthropological Inquiry

Zhang Jian¹, Liu yingdan², Zijun Yin³, Safdar Abbas^{*4}, Qin Shengdong^{*5}

Jian Zhang* – <https://orcid.org/0000-0002-2310-3884>, 50533828@qq.com

Liu Yingdan – <https://orcid.org/0009-0000-6337-9909>, 2073653236@qq.com

Safdar Abbas – <https://orcid.org/0000-0003-4040-9305>, safdarbloch1986@yahoo.com

Zijun Yin, – <https://orcid.org/0009-0002-4701-7523>, 851418277@qq.com

Qin Shengdong – <https://orcid.org/0009-0007-2969-1510>, 1091270019@qq.com

¹ Center for Studies of Education and Psychology of Ethnic Minorities in southwest China of Southwest University, Chongqing, 400715, China

² Shahe No.1 Primary School, Baotou City, Inner Mongolia, China.

³ School of Fine Arts Southwest, University, Chongqing, China.

⁴ College of International Education, Sichuan International Studies University, Chongqing, China

⁵ Guangxi Normal University for Nationalities, Chongzuo, Guangxi, China.

***Corresponding Author:**

Dr.Safdar Abbas & Dr. Qin Shengdong

Abstract

Mancala games, a diverse category of traditional board games played across cultures worldwide, bear resemblances to chess in their significance to human evolution and cultural progress. Drawing from anthropological investigations, this research uncovers the adaptability of mancala games to farming, marine, and nomadic cultures, tracing their origins to ancient Egypt and their subsequent spread among diverse civilizations in Africa, Malaysia, and China. This study highlights the extensive contributions of mancala games across various educational domains, encompassing moral, intellectual, physical, and aesthetic education, all of which foster comprehensive human development. By examining the cultural, historical, and educational dimensions of mancala games, this research unveils their profound impact on human societies throughout history, shedding light on their enduring significance. Mancala games emerge as powerful tools for promoting moral reasoning, critical thinking abilities, strategic planning skills, physical coordination, and cultural understanding. They embody cultural traditions, transmit ancestral knowledge, and foster social cohesion. Through their entertainment value and ability to shape and enrich human experiences, mancala games weave a cultural tapestry that intertwines with human societies, both past and present.

Keywords: Anthropological investigation, cultural exploration, cultural heritage, cultural pedagogy, mancala games, traditional board games

1. Introduction

Ancient civilizations had their own distinct chess culture, with chess activities in ancient China collectively referred to as "chess" and playing chess known as "game" (Lin Feng, 2001). Chess was classified as one of the "four skills of a learned scholar" along with ancient musical instruments, calligraphy, and painting, signifying its cultural importance. The popular "Caturaṅga" in ancient India served as the precursor to modern chess (Lin Feng, 2001). In medieval European feudal societies, chess played a vital role in knightly education and was an integral part of the curriculum. Chess holds symbolic significance as a representation of regional culture and the budding civilization of humanity, breathing life and vitality into the development of human civilization.

The indigenous Malaysians, Chinese individuals, and relevant scholars revealed a consensus that the props and rules of the game were essentially the same as those of the ancient Egyptian game called "Mancala" (Natsoulas A, 1995). This led to questions regarding the origins and spread of chess.

Extensive interviews with indigenous Malaysians, Chinese individuals, and relevant scholars revealed a consensus that "Congkak" is a uniquely Malaysian cultural product with a long history. To shed light on the historical origins and relationships between "Mancala," documented in Africa since the 15th century BC (Natsoulas A, 1995), and the Malaysian Congkak, an anthropological investigation is necessary. Such an examination will help clarify the transmission path and scope of the game, utilizing the rules of the game as fundamental clues.

1.1 Origins of Mancala Games: Tracing the Historical Roots

"Mancala" is a broad term referring to a class of board games featuring two or four rows of cup-shaped holes and using various pieces, such as seeds, stones, or shells (Voogt, 2014). In gameplay, players take turns distributing the pieces one by one into consecutive holes of each row (Voogt, 2014). The game has ancient origins, with its roots traced back to Egypt, making it one of the oldest continuously played games in the world (Barker, 1979). The term "Mancala" is derived from the Arabic word "Naqala," meaning movement (Barker, 1979).

Different variations of Mancala exist across cultures, known by names like "sowing" or "count-and-capture," which reflect specific gameplay rules (Barker, 1979). The "sowing" version is commonly associated with farming cultures, while the "count-and-capture" version is prevalent in nomadic cultures (Barker, 1979).

Archaeological evidence points to the origins of Mancala in ancient Egypt. Notably, seven ancient checkerboards discovered in the Kuna Temple provide early documentation of the game. Among these findings, the Manchu checkerboard, with its eight positions, dates back over 3,400 years. Similar checkerboards carved into stone slabs have been found in temples in Luxor, Egypt, and the Pyramids of Giza (Zhou, 2008).

Considering these sources, it is evident that Mancala originated in early agrarian and pastoral societies. The game's board, featuring multiple rows of holes representing planted nests, and the use of seeds and fruits as game pieces, imitate the agricultural practice of seeding. Furthermore, variations using sheep dung balls or carpal bones depict scenes from the lives of ancient nomads. Thus, Mancala reflects the adaptation of productive economies to diverse cultural and environmental contexts,

signifying its significance beyond economic and social realms and encompassing cultural and educational aspects (Zhou, 2008).

1.2 The Dissemination of Mancala Games: Exploring Cultural Transmission

The widespread dissemination of Mancala games can be attributed to various factors, making it unique among popular games such as Rudo, Dominoes, and dice. Mancala stands out as the major game that has traversed from the West to the East, attaining a broad geographic distribution encompassing Africa, the Middle East, and Southeast Asia (Barker, 1979). Some have even regarded it as an African national pastime (Barker, 1979). The game initially catered to participants' aspirations for agricultural abundance, deeply ingraining their spirit of competition and resilience. Over time, it transformed from a ritual offering to a board game with rules and competitiveness, disseminating across the world through trade exchanges, wars, religious missions, and immigration.

The expansion of Mancala games was closely intertwined with trade activities, facilitated by the opening of new routes that forged direct or indirect connections between major civilizations. During the mid-18th century, the intensification of the West African slave trade resulted in the transportation of numerous African slaves who brought Mancala games to the New World (Bikić & Vuković, 2010). Despite being surrounded by colonial products and Western European culture, the slaves adapted the game to their new circumstances, incorporating it into their cultural practices (Bikić & Vuković, 2010). Originating in ancient Egypt and gaining popularity in Africa, Mancala then spread through the slave trade to Cape Verde, Caribbean countries, and South America, eventually reaching the Middle East through Arab traders. Subsequently, trade activities disseminated the game to Europe and further along the Silk Road to Central Asia, South Asia, Southeast Asia, and other regions.

The expansion of Mancala games was also closely tied to military conflicts between nations. Archaeologists have discovered chessboards in fortresses in the Balkans, indicating that the Mancala game's presence in the region resulted from the Ottoman conquest, with its rules influenced by the Anatolian region (Bikić & Vuković, 2010).

Religious missionary activities played a significant role in the dissemination of Mancala games. If the birthplace of Mancala is considered to be Northwestern Africa and Western Asia, Islamic missionaries played a vital part in spreading the game to South and Southeast Asia and beyond (Bikić & Vuković, 2010). The game known as "Shelving sheep's nest" in Pizhou, China, shares striking similarities with Mancala rules and was introduced to China by missionaries during the Tang Dynasty, gaining popularity in the Ming and Qing Dynasties.

Moreover, immigration activities contributed to the spread of Mancala games, particularly in central and western Africa. Numerous African immigrants and their descendants in various parts of the United States continue to engage in this chess game (Voogt, 2010). Presently, the game has extended from African-American immigrant communities in the United States, gaining acceptance among locals due to its valuable intellectual attributes. Remarkably, reports of Congkak playing in the Territory of Guam and the Filipino community in Taiwan suggest that the diffusion of Mancala games is linked to immigrant groups (Voogt, 2010).

In summary, the global spread of Mancala games can be attributed to a complex interplay of trade, warfare, religion, and immigration. These factors have contributed to the game's widespread adoption,

adaptation, and integration into various cultures and communities across the world.

1.3 Analysis of Mancala Game Mechanics and Strategies

There exists a multitude of variations in playing the Mancala game, with rules adapting to local cultures as the game spread to different regions. Regardless of these variations, the game serves as a valuable tool for enhancing players' mental arithmetic and planning skills (Bikić & Vuković, 2010). Over time, the props, materials, and rules of the Mancala game have undergone extensive evolution. Originally, players would dig holes in the ground to create chessboards and use stones or seeds as game pieces. In more elaborate iterations, chessboards have been intricately carved from expensive wood and embellished with shells and precious stones (Mancala, 2014). As the saying goes, "When in Rome, do as the Romans do," prompting slight modifications to the rules of the game to align with local customs and practices. In this paper, our focus will be on one of the most prevalent sets of game rules. Specifically, the game involves a rectangular chessboard, the size of which may vary, featuring 14 small chess holes, two large chess holes serving as storehouses, and a total of 102 game pieces (Smith, 2022). Please refer to the accompanying figure for visual representation.



Fig.1. 7-hole chessboard

The rules of the Mancala game are as follows: The game board consists of two large holes, known as storehouses, positioned on the left and right sides, along with two rows of tiny holes. Each row comprises seven tiny holes (Chan, 2010). The distribution of the tiny holes and storehouses follows specific rules: the upper row contains seven tiny holes with the storehouse on the left, assigned to Player A. The bottom row also consists of seven small holes with the storehouse on the right, assigned to Player B. Before commencing the game, seven pieces are placed in each of the 14 tiny holes. The storehouses, located at either end, serve as repositories for the players' accumulated pieces, and therefore, no pieces are placed in them at the beginning (Anthula & Natsoulas,1995).

A crucial aspect of the Mancala game involves counting the number of pieces and their movements. Players must engage in accurate calculation and strategic foresight to gradually capture the opponent's pieces. Certain rules govern player conduct during the game. For instance, players are prohibited from counting the number of pieces in a hole using their hands or manipulating the pieces by picking them up and putting them back. Additionally, players must swiftly move the pieces within short time periods and are not allowed to remain stationary. Once the game starts, there is no turning back or room for remorse, as adherence to the rules is strictly enforced (Bai Jie,2007).

The game begins with alternating turns. The player who initiates the game selects one of their own holes and removes all the pieces from that hole. Careful consideration is essential in choosing the particular hole. After emptying the chosen hole, the player proceeds in a counterclockwise direction, starting from the next hole. At each hole encountered, a piece is placed. When a player reaches their own storehouse, they must also deposit a piece. Similarly, when encountering the opponent's hole, a

piece is placed in it. However, when encountering the opponent's storehouse, a piece is not placed, and the player skips ahead until all the pieces have been distributed. The final placement of the last piece is crucial. If it falls into the player's own storehouse, they are granted an additional turn and can begin playing again, starting from any of their own holes. Alternatively, if the last piece falls into an opponent's hole, the turn shifts to Player B (Chong, S., & Mennie, N, 2011).

1.4 Objectives of the study:

To investigate the cultural adaptability of mancala games to farming, marine, and nomadic cultures: The study aims to explore how mancala games have been adapted and integrated into different cultural contexts, examining their significance and role within farming, marine, and nomadic societies.

To trace the origins and spread of mancala games across diverse civilizations: The research seeks to uncover the historical roots of mancala games, tracing their origins to ancient Egypt and examining their subsequent dissemination among civilizations in Africa, Malaysia, and China. This objective focuses on understanding the historical trajectory of mancala games and their cultural diffusion.

To examine the educational contributions of mancala games in various domains: The study aims to highlight the educational dimensions of mancala games, exploring their impact on moral education, intellectual development, physical coordination, and aesthetic appreciation. By investigating their contributions to different educational domains, the research seeks to shed light on the comprehensive human development facilitated by mancala games.

1.5 Methodology of the study

The methodology for the study combines ethnographic fieldwork and anthropological interpretation. This involves conducting extensive ethnographic fieldwork in diverse cultural settings to observe and document the playing of mancala games, while employing an anthropological lens to analyze the collected data and findings. The fieldwork includes participant observation and interviews with players to gather firsthand data on the cultural significance of mancala games, gameplay variations, and social contexts. Additionally, archival research and literature review are conducted to trace the historical origins and spread of mancala games. This historical research, along with the ethnographic data, is then analyzed within broader anthropological frameworks to explore the role of mancala games in human societies, their significance in human evolution, and their contributions to cultural development. By combining these methodologies, the study aims to provide a comprehensive understanding of mancala games and their cultural adaptability, historical roots, and broader implications in human societies.

By employing a combination of these methodologies, the study can provide a comprehensive understanding of mancala games, their cultural adaptability, historical roots, educational contributions, and their broader implications in human societies.

2. Results & Discussion

2.1 Cultural Adaptation of Mancala Games in Diverse Contexts

Mancala games exhibit varying characteristics influenced by geographical environments and cultural customs. Numerous Mancala variations are played across Africa, Asia, the Caribbean, and America, each displaying minor and major differences (Bikić & Vuković, 2010). However, a significant finding is the presence of striking similarities among these variations, with a common term

known as "sowing" observed in all Mancala games (Bikić & Vuković, 2010). This widespread adoption of Mancala games and the presence of shared elements signify the intersection and integration of multiple civilizations, showcasing the cultural diversity reflected in the rules of Mancala games across different regions. Mancala games encompass a multitude of rule sets tailored to suit specific regions, offering varying complexities and cultural connections (Mancala, 2014).

2.2 Farming Culture Integration: Exploring Mancala Games in African Contexts

The Mancala Games in Africa serve as a close reflection of the specific cultural context within the continent. Despite the challenging natural environment and adverse climate change, a significant portion of Africa's population relies solely on agriculture for subsistence (Bedeke, 2022; Osabohien et al., 2019; Suri & Udry, 2022). In this regard, African farmers, seeking to express their sincerity and good wishes for a bountiful harvest, devised Mancala Games during their leisure time as a simulation of farm sowing. These entertainment games, with various regional variations, trace their origins back to ancient civilizations deeply rooted in farming culture (Abayomi et al., 2013; Mkondiwa, 2020). However, the methodologies of Mancala Games have not remained consistent throughout history.

Investigations into Mancala Games in Africa reveal that they represent a symbolic system associated with production and lifestyle. The orientation of the chessboard typically aligns in an east-west direction, symbolizing the rising and setting of the sun. The chess pieces themselves represent seeds, while the continuous movement of these pieces embodies diligent sowing, mirroring the celestial movement of stars and the passage of time and space. This dynamic nature reflects Africans' profound love for their land and life. A defining characteristic of this board game lies in the constant throwing and moving of chess pieces into the holes of the chess set, resembling the act of sowing seeds. Both players employ precise calculation and strategic foresight to progressively capture the opponent's pieces through a series of moves.

A chessboard was observed at the Africa Pavilion of Zhejiang Normal University (Fig. 3). Through a literature review, the authors discovered that the props and rules of the game were essentially the same as those of the ancient Egyptian game called "Mancala" (Natsoulas A, 1995). This led to questions regarding the origins and spread of chess.



Fig.2. showcases a Naqula game from Africa, taken from Zhejiang Normal University in China. In this context, Mancala Games bear striking resemblances to agricultural cultivation. The game constructs patterns reminiscent of agricultural sowing, as chess pieces are thrown into different places and holes, symbolizing the belief that a diligent "sowing of seeds" leads to abundant crops and a fruitful harvest. This parallel underscores the close connection between Mancala Games and the

agricultural practices deeply ingrained in African cultures.

2.3 Marine Culture Integration: Exploring Mancala Games in the Context of Malaysia

Malaysia, with its unique geographical location between the Pacific Ocean and the Indian Ocean, is situated at the crossroads of East-West trade and shipping routes, notably the Strait of Malacca (Schinas & von Westarp, 2017). Historically, this strait has served as a crucial transit point along the Maritime Silk Road, facilitating the production, trade, and cultural exchange of diverse commodities (Schinas & von Westarp, 2017). Mancala games were introduced to Malaysia by merchants who traversed the Strait of Malacca. Initially, Mancala games were a form of entertainment for court dignitaries, while the traditional Malay board game, known as Congkak or Malay broadcast chess, emerged as a variation of Mancala games (A. F. Z et al., 2018; Che Pa et al., 2013). In earlier times, when entertainment options were limited, Mancala games were predominantly played by women and children, usually involving two players. The game was played using rudimentary instruments such as holes dug in the ground, shells, seeds, small stones, or marbles. Over time, the game's instruments evolved, driven by considerations of portability and reuse. Oval-shaped wooden blocks were carved with intricate patterns, becoming unique folk art and a cultural gem of the local community. Today, Mancala games have become an integral part of Malaysian lifestyles, leaving a significant impact on the people (A. F. Z et al., 2018; Che Pa et al., 2013).

During fieldwork in Malaysia, the author encountered a popular board game called "Congkak" (Fig. 1). This wooden board featured two rows of circular pits, with slightly larger pits on the left and right sides. The number of pits in a single row was typically odd, such as seven or nine. The game of Congkak is well-known in Malaysia.



Fig.3. showcases an interaction observed in Seremban, Malaysia, where a mother assumes the role of guiding her younger son in a gameplay session alongside his older brother.

The Mancala game board in Malaysia is rectangular and consists of two rows of chess holes, with the number of holes typically varying. Each row generally contains five to ten holes, with a large hole at the end of each row. As technology advanced and consumer needs evolved, the Mancala game board gradually underwent refinement and development, transforming into a foldable and convenient chessboard toy (Ismael, 2002). The game is often played indoors, with two players assigned to each row and using pebbles, marbles, or wooden seeds as chess pieces. While the rules are simple, the game

requires players to employ flexible tactics, mental calculation skills, and logical thinking to outmaneuver their opponents (Ismael, 2002).

Mancala games in Malaysia demonstrate a seamless integration into the maritime trade culture of the country. Each hole on the chessboard represents a distinct trade region, with the chess pieces in each hole symbolizing the goods to be transported. This concept symbolizes players' engagement in the transportation of goods to various regions. The game simulates the circulation of commodities across different regions, allowing players to capitalize on price differences through buying and selling goods (Ismael, 2002). This mechanism serves as a vivid simulation of traditional business practices, where merchants profit from price differentials by engaging in long-distance transportation and sales of commodities. This aspect, to some extent, contributed to the popularity and prevalence of Mancala games in Malaysia, as it mirrored the trading activities prevalent in the maritime culture of the country.

2.4 Nomadic Culture Integration: Exploring Mancala Games in China's Mongolian-inhabited Areas

The Silk Road in Mongolian areas not only serves as a vital commercial artery connecting Eurasia but also represents a meeting place for the exchange and collision of Chinese, Western, and North-South cultures, thus embodying the strong influence of grassland culture (Brugier, 2014; Che & Lan, 2021). Mancala games spread to the steppes of northern China through the Steppes Silk Road and gradually underwent adaptation and integration within nomadic cultures.

The content of the Mancala game is closely intertwined with human life, with the materials of the game naturally derived from the living environment of the game's participants. Additionally, the process, rules, and format of the game undergo modifications influenced by cultural backgrounds. The Mongolians, residing in the grasslands of northern China, sustained themselves through nomadic industries, relying on water and grass as they were influenced by the natural environment.

The author recalled playing a similar game in childhood, taught by their grandmother in Inner Mongolia, although with different materials (Fig. 2). Instead of using glass balls like the Malays, they used sheep dung balls, and the chessboard was crafted from local materials by digging holes in the ground.



Fig.4. illustrates an engaging moment captured in Ulanqab, Inner Mongolia, China, where a boy is seen actively participating in a "walking sheep's nest." game with his uncle. The vast and sparsely populated prairies provided limited opportunities for recreation among the Mongolians during their herding activities. The introduction of the Mancala game proved to be well-

suiting to the needs of the local nomadic lifestyle and was consequently renamed "walking sheep's nest." The game features simple and widely known rules, combining the reality of sheep herding on the prairie with the aspiration of increasing sheep numbers for higher income. This symbolism is vividly expressed in the form of the game, which serves as an educational activity that enhances participants' visual acuity, mental arithmetic, and hand joint flexibility, while also possessing certain humanistic value.

Prior to playing the game, the pitch needs to be prepared. "Walking sheep's nest" is a two-player game that utilizes locally available materials. Two rows of small pits or circles (representing sheep's nests) are dug or painted on the ground, with five nests in each row arranged horizontally in parallel (as depicted in Figure 2). Before the game commences, players squat or sit beside the rows of sheep's nests and place five sheep dung eggs (or small stones of uniform size, or larger seeds, etc.) in each of the nests in front of them, symbolizing sheep.

The game follows a specific set of rules, with the order of play determined through a Rock-Paper-Scissors game. The winner chooses any sheep's nest, picks up all the sheep, and throws them in a clockwise order into the sheep's nests below. One sheep is placed in each nest. If the player finishes releasing the sheep in their hand without encountering an empty sheep's nest, the game stops, and it becomes the opponent's turn to throw. The opponent then selects a sheep's nest to continue the same gameplay step. However, if an empty sheep's nest is encountered, it is "wiped," and the player can collect all the sheep from the nest behind the empty one and continue with the same gameplay step by picking up all the sheep from the subsequent nest. Winning is not possible if two consecutive empty sheep's nests are encountered. The most successful outcome is achieving a "continuous nest" by consistently encountering an empty nest followed by a real one. The game serves as an educational form of entertainment, with the key element being the initial selection of a sheep nest. Opting for a perfect nest enables the player to achieve a "continuous nest." Players take turns herding the sheep according to the game's rules until all the sheep have been moved. In some cases, only two sheep remain, and if neither player can obtain them, they are divided equally. The player with the higher number of sheep at the end is declared the winner of that round. Mongolian ancestors recognized the importance of early intellectual development.

2.5 Cultural and Educational Significance: Exploring the Functions of Mancala Games

The Mancala game, while primarily designed for leisure and recreation, encompasses rich cultural connotations and possesses remarkable intellectual and educational benefits. Players engage in a range of cognitive processes, including observation, reasoning, calculation, and coordinated manipulation of the eyes, brain, and hands, enabling them to make accurate throws, adapt strategies quickly, and achieve their objective of winning (Hu Tiannong & Chen Xiaorong, 2017). The diverse strategies employed in Mancala games make the gameplay varied and intriguing, fostering players' attention, numerical counting skills, and memory retention, while effectively engaging their eyes, brain, and hands (Johan Huizinga, 2007).

The Mancala game, often referred to as "Return the Grain to the Storehouse," has been incorporated into early childhood intelligence development programs with the aim of nurturing children's numerical sense and fostering saving consciousness in their daily lives (Wu Fang, 2011). As

outlined in Article 29 of the Kindergarten Work Regulations (2016), play serves as a vital form of education that promotes the holistic development of children. Mancala games, as a compound cultural phenomenon, encompass elements of entertainment, edification, temperament improvement, philosophical enlightenment, and practical warfare strategies (Hu Tiannong & Chen Xiaorong, 2017).

The Mancala game holds moral education functions that are deeply ingrained within its gameplay. According to child psychologist Piaget, games serve as microcosms of the wider world and reflect the interpersonal relationships governed by established social rules (Wu Fang, 2011). By connecting games to children's lived experiences and incorporating their need for understanding relationships and the world, Mancala games contribute to the development of ethical character traits. The spirit of the game emphasizes notions of relative fairness, strict adherence to rules, absolute competition, and flexible cooperation, thereby embodying various aspects of human nature, such as truth, goodness, and beauty (Johan Huizinga, 2007).

Furthermore, Mancala games offer intellectual educational benefits. During gameplay, players must concentrate to avoid repeating or missing moves, constantly observing their opponent's intentions and strategies. They must make timely judgments, plan defensive maneuvers, and engage in strategic thinking to gain an advantage over their opponents. The mental confrontation and strategic nature of the game enhance players' concentration, quick reflexes, and cognitive processes (Hu Tiannong & Chen Xiaorong, 2017).

The game's ever-changing nature, with varying numbers of pieces in each hole and no fixed rules to follow, necessitates quick decision-making and the ability to select starting points strategically. Players must avoid repeated counting and utilize their numerical sensitivity and estimation skills to arrange the pieces effectively, creating opportunities to play multiple times or disrupt their opponents' plans. This process strengthens children's number sense, logical thinking, computation, mental arithmetic, problem-solving strategies, and motivation to learn mathematics (Hu Tiannong & Chen Xiaorong, 2017). Moreover, the game promotes brain-eye-hand coordination, spatial thinking, and abstract conceptual understanding, including spatial orientation, translation, and rotation (Hu Tiannong & Chen Xiaorong, 2017). The Mancala game offers remarkable cultural and educational functions that extend beyond leisure and recreation. Its ability to stimulate intellect, enhance mathematical skills, and promote moral character development highlights its educational significance. Moreover, the game's engagement of cognitive processes, coordination of sensory organs, and cultivation of logical thinking contribute to its enduring appeal as a valuable tool for children's play and learning.

Playing Mancala games not only serves as a source of leisure and recreation but also cultivates systematic problem-solving habits in children. Throughout the game, children engage in systematic thinking, carefully observing trends, identifying threats, and seizing opportunities to formulate strategies and countermeasures (Geng Da & Zhang Xingli & Shi Jiannong, 2015). They learn to assess potential threats and devise preventive measures, as well as create favorable conditions for themselves when no immediate threats are present. This problem-solving model promotes the development of a "look before you leap" mindset, which is particularly important as children transition to primary school and encounter complex problems that require cross-disciplinary connections, knowledge synthesis, comparison, and summarization (Geng Da & Zhang Xingli & Shi Jiannong, 2015).

Furthermore, Mancala games have a distinct sports education function. Regular engagement in fine motor activities, such as manipulating Mancala game pieces, stimulates the neural connections between the brain and fingers, promoting brain development, enhanced intelligence, and dexterity in children (Geng Da & Zhang Xingli & Shi Jiannong, 2015). The execution of fine motor movements requires conscious planning and coordination of muscles and strength, accompanied by sensory perception and feedback (Geng Da & Zhang Xingli & Shi Jiannong, 2015). For children whose hand muscles are still developing, engaging in finger movements during gameplay exercises the finger and arm muscles, enhancing their flexibility and coordination. This process also facilitates the coordinated development and improvement of visual, auditory, tactile, and language functions (Geng Da & Zhang Xingli & Shi Jiannong, 2015).

Esthetic education is another significant aspect of Mancala games. Often referred to as "Hand talk," the game communicates meaning through the visual shapes formed by the chess pieces (He Yunbo, 2005). The game encourages players to transform intangible wisdom into tangible chess paths, engaging in mutual learning, inspiration, and progress. It exemplifies the "beauty of silence" and, in its various forms, incorporates elements of aesthetic appeal, such as elaborately carved chessboards with unique patterns reflecting local cultural traditions (He Yunbo, 2005). The bright colors, smooth textures, and visual allure of the game pieces cater to children's aesthetic tastes, making the game a visual feast (He Yunbo, 2005).

Moreover, Mancala games have a labor education function. Originating from labor activities, the game offers a glimpse into real-life production and lifestyles, providing an experiential understanding of ancestral practices and the achievements of human labor and material transformations (He Yunbo, 2005). By simulating adult production and lifestyle, children gain a sense of adult labor experiences and satisfy their desire for independent living (He Yunbo, 2005). As outlined in the guideline on hardworking spirit education issued by the Communist Party of China Central Committee and the State Council, playing Mancala serves as a practical means of integrating education with productive labor, aligning with the aim of educating individuals through the combination of labor and education (He Yunbo, 2005).

Traditional folk games, such as Mancala, hold immense cultural value, symbolizing societal and natural phenomena, embodying local cultural traditions, and documenting the historical development of human culture (He Yunbo, 2005). In the contemporary era, with the prevalence of online games, traditional folk games remain irreplaceable vehicles for cultural inheritance. Mancala games, with their amalgamation of entertainment, intelligence, sports, moral education, aesthetic education, and labor education, offer a novel and captivating experience that is simple to operate.

3. Conclusion

The Mancala game is a culturally significant and multifaceted activity that offers numerous educational benefits for players, particularly children. Through its gameplay, Mancala fosters systematic problem-solving habits, promoting critical thinking, observation, and strategic planning skills. It also cultivates good habits of thinking actively and comprehensively, which are essential for children navigating various academic disciplines. Mancala games also contribute to sports education by stimulating the development of fine motor skills and hand-eye coordination. The physical movements

involved in manipulating game pieces promote brain development, enhance intelligence, and improve the overall physical abilities of children. The game's esthetic aspects provide a visual feast, incorporating elements of artistic expression through unique and culturally significant chessboard designs.

In addition, Mancala games have a labor education function, offering a glimpse into the world of labor and production. By engaging in simulated labor activities, children gain a practical understanding of real-life production processes, foster a sense of independence, and appreciate the value of hard work. Traditional folk games like Mancala hold immense cultural value, serving as vehicles for cultural inheritance and representing the historical development of human society. In an era dominated by digital technology, the preservation and promotion of traditional folk games are crucial for maintaining cultural diversity and ensuring holistic human development.

In conclusion, the Mancala game transcends its role as a mere pastime, providing educational benefits that encompass problem-solving, physical coordination, aesthetic appreciation, and an understanding of labor. Recognizing the cultural significance and educational potential of Mancala games can inspire further research, preservation, and integration of these traditional folk games into educational curricula and leisure activities, thereby enriching the lives of individuals and strengthening cultural heritage for future generations.

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