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Traditional Games and Early Childhood Learning: An Educational Psychology Perspective on Arfak Community Local Wisdom

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Abstract
Traditional games are part of children's play experiences that not only provide enjoyable activities but also involve rules, challenges, interaction, the use of concrete objects, educational values, and social and emotional experiences. In the context of early childhood education, these characteristics are relevant to children's learning processes, which take place through direct experiences and play activities. This study aims to describe five traditional games that constitute the focus of the study within the context of the Arfak community in Arfak Mountains Regency and to analyze the characteristics of the activities and learning experiences that can be examined from the perspective of Educational Psychology in Early Childhood Education. This study employed a descriptive-exploratory qualitative approach. Data were obtained through interviews with community members who have knowledge of traditional games and were supported by available documentation. Data were analyzed through data condensation, data display, and conclusion drawing and verification, following a qualitative data analysis approach. The five games that constitute the focus of the study are Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah. These games were selected as examples of traditional games within the context of the Arfak community and are not intended to represent all traditional games found in the region. Each game has different activity structures and challenges, but generally provides opportunities for children to experience motor coordination, concentration, decision-making, cooperation, perseverance, self-control, and social interaction. The findings indicate that traditional games can be considered as contextual learning experiences when implemented appropriately according to children's characteristics and safety.

Keywords: Arfak community; early childhood; educational psychology; local wisdom; traditional games

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INTRODUCTION

Play is an activity that is closely connected with children's learning and social experiences. Through play, children interact with their environment, communicate with others, respond to challenges, and participate in activities structured by rules. Halimah (2016) positions play as a way of learning for young children, while Nutbrown and Clough (2015) emphasize the relationship between play, learning, and pedagogy. However, the educational potential of play needs to be understood not only in terms of its general benefits but also through a specific theoretical perspective. In this study, Vygotsky's sociocultural theory is used as the analytical lens for understanding traditional games as socially and culturally mediated activities. Vygotsky (1978) explains that psychological development is shaped through socially mediated activity, while his discussion of play emphasizes the role of rules in

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organizing children's actions within play situations (Vygotsky, 2016). This perspective is particularly relevant to traditional games because their rules, challenges, interactions, and culturally situated practices structure how players act and respond during play. Accordingly, this study analyzes the characteristics of traditional games not as direct causes of children's psychological development, but as potential contexts for learning experiences related to movement, attention, decision-making, social interaction, and self-regulation.

Play-based learning has been widely discussed as an important pedagogical approach in early childhood education, particularly because play provides opportunities for children to engage actively in learning experiences (Pyle et al., 2017).

In this context, traditional games have an important position because play activities take place through rules, materials, environments, and interactions that are close to children's lives. Kurniawan et al. (2020) distinguish play as an activity from a game as a system or mechanism that organizes the activity through components such as the name of the game, rules, equipment or media, and procedures for playing. The structure of a game is important in early childhood education because its rules, movements, turns, challenges, interactions, and objectives can create different learning experiences. Fadlillah (2023) also explains that traditional games generally use simple equipment and materials available in the surrounding environment, making them strongly connected to children's everyday experiences. Purnama et al. (2019) add that traditional games provide opportunities for children to engage in physical activities, interact, cooperate, develop strategies, and relate to their environment.

A number of studies indicate that traditional games have diverse educational potential. Wahyu and Rukiyati (2022), through a literature study, show that traditional games can be used as alternative media for stimulating various aspects of early childhood development. Sudaryanti et al. (2024) also show that traditional games are associated with physical-motor and social-emotional experiences, including coordination, balance, interaction with peers, cooperation, problem solving, and confidence. Other research on traditional games demonstrates their potential for stimulating gross motor skills, concentration, and agility in children (Suwarni et al., 2024), while local-culture-based traditional games have also been studied as a means of strengthening character and preserving culture (Hajeni et al., 2023; Wabiser et al., 2024). These findings indicate that traditional games have not only recreational value but can also become part of children's educational experiences when understood and utilized according to children's characteristics.

The relationship between games and learning experiences becomes increasingly important when games are placed within a local cultural context. Children do not learn in spaces detached from their social and cultural environments. Games that use objects, rules, movements, terms, and practices familiar within the community can provide experiences that are closer to children's lives. Gray and Palaiologou (2022) position play as a space for children's exploration, intrinsic motivation, imagination, and creativity. In the context of local wisdom, traditional games can therefore become a meeting point between children's play experiences and the cultural environment in which they live. Research on traditional games in

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local communities also shows that games can carry social, cultural, and character values relevant to early childhood education (Qalbi et al., 2022; Wabiser et al., 2024).

Arfak Mountains Regency has a social and cultural environment in which the Arfak community possesses rich local knowledge and practices. One form of knowledge that remains known within the community is traditional play, which makes use of the environment, simple objects, bodily movement, rules, and interaction among players. This study does not designate a specific village or district as a fieldwork site, but focuses on traditional games associated with the Arfak community and examines their characteristics from the perspective of Educational Psychology in Early Childhood Education. Based on information obtained from the informants, five traditional games were identified and documented as the focus of this study, namely Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah. The names of the games are presented according to the names reported by the informants. These five games are not intended to represent the entire range of traditional games practiced by the wider Arfak population, but serve as examples of games identified through the data collected in this study.

These five games have different activity characteristics. Talimasuk involves jumping, speed, balance, group rules, and strategy; Benteng involves interaction between groups, movement, pursuit, and game rules; Batu Sepuluh involves activities requiring hand-eye coordination, timing, concentration, and perseverance; Aremomsai involves balance and movement accuracy using the Armori flower as part of the local context; while Panah-Panah Buah involves hand-eye coordination, concentration, accuracy, and familiarity with a skill reported by informants as known within the local community. These five games were selected as the focus of the study because their documented activity characteristics, challenges, and interaction patterns provide a basis for analysis from the perspective of Educational Psychology in Early Childhood Education.

Although research on traditional games and early childhood education has developed in different Indonesian cultural contexts, previous studies have generally examined traditional games through specific developmental or educational outcomes. Suwarni et al. (2024), for example, examined traditional games in relation to gross motor stimulation, placing emphasis on physical-motor development. Sudaryanti et al. (2024) examined the contribution of traditional games to physical-motor and social-emotional abilities. In a different cultural context, Wabiser et al. (2024) examined traditional games among the Ngalum Ok community, with particular attention to character values in early childhood. Meanwhile, Astini et al. (2022) focused on identifying and mapping traditional games in North Lombok Regency as a basis for considering their suitability for early childhood education.

These studies differ in community context, research focus, and evidence base, but they share an emphasis on identifying educational or developmental value rather than examining how the internal structure of games may be interpreted as a context for learning experiences from an Educational Psychology perspective. Their findings provide important evidence that traditional games can be associated with particular developmental or educational dimensions;

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however, the cited studies do not address the same combination of community context, game characteristics, and analytical focus examined in the present study. In particular, they do not examine the traditional games documented in relation to the Arfak community while systematically considering game rules, activity patterns, challenges, and player interactions as the basis for interpreting potential learning experiences. Therefore, the gap addressed by this study is not the absence of research on traditional games, but the limited attention in the cited literature to analyzing traditional games associated with the Arfak community through the relationship between game structure and potential learning experiences in early childhood education.

The research problem is addressed through several questions that can be examined using interview and documentation data. First, how do informants describe the structure and characteristics of the five traditional games, including their equipment, rules, procedures, player activities, and forms of interaction? Second, what meanings, values, or cultural contexts associated with these games are reported by the informants? Third, how can the characteristics, challenges, and interactions found in the games be theoretically interpreted as potential learning experiences from the perspective of Educational Psychology in Early Childhood Education? These questions shift the research focus from the scarcity of studies to aspects that can be directly examined through the available evidence. The analysis is therefore based on descriptions provided by informants and supporting documentation, while the interpretation of potential learning experiences is grounded in the theoretical perspective used in this study. This approach enables traditional games to be understood not only as cultural practices but also as potential contextual learning experiences, without claiming direct developmental effects that were not observed or measured in this study.

The urgency of this study is strengthened by the need to utilize traditional games in early childhood education contextually while continuing to consider children's characteristics and safety. Research on traditional games in various regions shows that games can be modified or adapted to make them relevant to early childhood educational needs (Adi et al., 2020; Khadijah & Wahyuni, 2024). Therefore, games known within the Arfak community need to be mapped and their characteristics analyzed before they are considered as learning activities in early childhood education. This approach allows teachers to recognize the learning experiences potentially contained in games without removing their original cultural context.

The novelty of this study does not lie in claiming that the traditional games associated with the Arfak community are completely new forms of games. Rather, the contribution lies in a data-informed analytical structure that connects the documented characteristics of games with the activities, challenges, and interactions described by informants, and then interprets these characteristics as potential learning experiences from the perspective of Educational Psychology in Early Childhood Education. The structure was derived from the empirical data obtained through interviews and documentation. Information concerning game rules, equipment, procedures, activity patterns, and forms of interaction was first organized as the

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game structure. These characteristics were then examined in relation to the activities, challenges, and interactions required by the games. The resulting patterns were not treated as evidence of developmental effects, but were theoretically interpreted as potential learning experiences using Vygotsky's sociocultural perspective, particularly the role of socially and culturally mediated activity and rules in play (Vygotsky, 1978, 2016).

Accordingly, the analytical structure developed in this study can be understood as a sequence of interpretation: game structure (player activities), challenges, and interactions (potential learning experiences), possible contextual utilization in early childhood education. This sequence represents an analytical framework rather than a causal model. The arrows indicate the logic of interpretation and do not imply that a particular game structure causes a particular psychological or developmental outcome. This distinction is important because the study was based on interviews and documentation and did not directly observe children's psychological processes or experimentally test the effectiveness of the games.

The contribution of this structure is therefore not the development of a new game theory or an effectiveness model, but the integration of game characteristics and culturally situated play activities into an Educational Psychology analysis of potential learning experiences. This framework also differs from approaches that primarily evaluate traditional games according to predetermined developmental outcomes, because it begins with the documented structure and activity characteristics of the games and subsequently considers their potential educational meaning. In this study, the framework is applied to five traditional games associated with the Arfak community: Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah. These games are treated as examples identified through the research data and are not presented as representative of all traditional games practiced by the wider Arfak population.

The structure has several limitations. First, because the components were derived from qualitative descriptions provided by purposively selected informants and supporting documentation, they should be understood as an interpretation of the available data rather than as a universally applicable model. Second, the framework identifies potential learning experiences based on game characteristics, but it does not establish that children actually acquire particular skills or developmental outcomes through participation in the games. Third, the framework does not measure effectiveness, developmental change, or causal relationships. Direct observation of children's play and age-specific assessment would be required to examine whether the potential learning experiences identified in this study occur in practice and how they may relate to children's development. Thus, the conceptual structure proposed here should be used as an analytical and contextual framework for understanding traditional games, rather than as a causal or effectiveness model.

Based on this analytical framework, the study aims to identify and describe the characteristics of five traditional games associated with the Arfak community and to analyze their potential learning experiences from the perspective of Educational Psychology in Early Childhood Education.

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METHOD

This study employed a qualitative approach with a descriptive-exploratory research design. This design was chosen because the study aimed to identify, describe, and explore the characteristics of traditional games associated with the Arfak community in Arfak Mountains Regency and to interpret their potential learning experiences from the perspective of Educational Psychology in Early Childhood Education. The study focused on five traditional games, namely Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah. The data collection was conducted in September 2026 through interviews and documentation. The study did not designate a specific village or district as a fieldwork site, because the purpose was not to conduct an in-depth ethnographic study of one particular locality, but to examine traditional games associated with the Arfak community based on information obtained from the selected informants. Importantly, the study did not involve direct observation of children playing the games. Therefore, descriptions of the game structure, rules, equipment, procedures, activities, and interactions were derived from informants' accounts and supporting documentation. The descriptive-exploratory design was considered appropriate because it allowed the researcher to systematically describe the documented characteristics of the games and explore their potential learning experiences without testing causal relationships or the effectiveness of the games on children's development.

This study was not intended to document all forms of traditional games found in the Arfak community in Arfak Mountains Regency. The five games were purposively selected as examples based on information provided by informants regarding traditional games known and played within the local community. The five games are Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah. Information about the selected games was used to obtain data on their names, equipment, procedures for playing, rules, player activities, and the values and experiences associated with the games. A total of 30 informants participated in the study, consisting of both women and men aged 19 years and above. The informants had varying lengths of residence in the Arfak community, including those who had lived in the area since birth and those who had resided there for more than 10 years or more than 20 years. Informants were selected purposively based on their knowledge of and experience with the traditional games examined in this study. The informants served as sources of qualitative information for identifying and describing the characteristics of the five games; they were not treated as representatives of the entire Arfak population.

The research data were qualitative data concerning the characteristics of the five traditional games and the play-related information reported by the adult informants. The main data were obtained through interviews or question-and-answer sessions with the informants concerning the names, forms, equipment, procedures, rules, player activities, and values or meanings associated with the games. The interviews were conducted through both face-to-face sessions and voice recordings exchanged through WhatsApp. The face-to-face interviews were conducted with informants who originated from villages in Arfak Mountains but were residing in the city at the time of data collection. The interviews were used to document the

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informants' knowledge and experience of the games, rather than to obtain direct accounts of children's psychological experiences. The data were also supported by available documentation used to clarify information about the games and their related cultural context.

The study did not involve direct observation of children playing the games, nor did it collect testimony directly from children. Therefore, the descriptions provided by adult informants are treated as accounts of their knowledge and experience of the games and are not presented as evidence of children's actual lived experiences during play. Accordingly, references to attention, coordination, concentration, cooperation, perseverance, self-control, decision-making, and other psychological aspects are treated as potential learning experiences inferred from the characteristics and activity structures of the games. These interpretations are based on the documented game characteristics and the theoretical perspective of Educational Psychology in Early Childhood Education, rather than on direct evidence of children's psychological processes or developmental outcomes.

Data were collected in September 2026 through three forms of information gathering: written accounts, voice recordings, and direct oral interviews. Some informants provided written descriptions of the games on paper, while others provided voice recordings through WhatsApp. Information was also obtained through direct conversations with informants. The informants participated voluntarily and provided information based on their knowledge and experience of the traditional games. Some of the informants were students of the researcher, while others provided information based on their familiarity with the games. Individuals who were not willing to participate were not included as sources of data. The information obtained through these three forms was subsequently organized, compared, and paraphrased by the researcher for analysis.

The information collected concerned the names of the games, number of players, equipment or materials, rules, stages of play, activities performed, and values or meanings associated with the games. Written accounts and voice recordings served as supporting records of the informants' descriptions, while direct conversations provided additional information and clarification. The available research records included a voice recording dated September 4, 2026, written notes dated September 9, 2026, and information obtained through direct conversations in the early part of September 2026. The different sources were compared to support the consistency and completeness of the descriptions of the five traditional games.

The study was not conducted as fieldwork in a specific village or district and did not involve direct observation of children playing the games. Therefore, no site-specific fieldwork permission was sought. The study also did not collect direct testimony from children or children's personal information. The information provided by adult informants is therefore treated as an account of their knowledge and experience of the games and is not presented as evidence of children's actual lived experiences during play.

The researcher paraphrased the information provided by the informants rather than presenting identifiable personal quotations. The study did not formally seek institutional

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ethical approval from Sekolah Tinggi Teologi Erikson-Tritt, although the institution has a mechanism for research ethical approval. This study therefore does not claim to have received formal institutional ethical approval. This status is reported transparently to distinguish the ethical procedures actually undertaken during data collection from formal institutional ethical review. The ethical procedures undertaken included voluntary participation, exclusion of individuals who were unwilling to provide information, and avoidance of identifiable personal information in reporting the findings.

Data were analyzed using the qualitative data analysis approach of Miles, Huberman, and Saldana (2014), consisting of data condensation, data display, and conclusion drawing and verification. The unit of analysis was information describing the characteristics and activity structures of the five traditional games, including their names, equipment or materials, number of players, rules, procedures, player activities, challenges, interactions, and reported values or meanings. The researcher was the sole coder. During data condensation, information from written accounts, voice recordings, and direct oral conversations was reviewed, selected, and assigned descriptive codes related to game structure, activities, rules, challenges, interactions, and reported values or meanings. These codes were then grouped into broader analytical categories, including game structure, player activities, challenges, social interaction, and potential learning experiences. The condensed data were displayed in narrative descriptions and matrices to facilitate comparison across the five games. Conclusions were drawn and verified by examining recurring patterns and relationships between game characteristics, player activities, challenges, interactions, and potential learning experiences. Information from different data sources was compared to clarify consistencies and differences. Because the study involved a single researcher, inter-coder comparison was not conducted. The analytical progression was therefore: raw information → descriptive codes → analytical categories → cross-game patterns → theoretical interpretation of potential learning experiences. The interpretation was guided by Vygotsky's sociocultural perspective (Vygotsky, 1978, 2016), and potential learning experiences were treated as theoretical interpretations rather than directly observed psychological or developmental outcomes.

The subsequent analysis used a data-informed analytical framework linking game structure, player activities, challenges and interactions, and potential learning experiences. Game structure was analyzed based on the rules, equipment or materials, activity patterns, turn-taking, challenges, and forms of interaction described by the informants. Player activities were then examined in relation to four psychological concepts used as analytical indicators: coordination, attention, self-regulation, and cooperation. Coordination refers to the ability to organize and control bodily movements in relation to perceptual information and the demands of an activity. Attention refers to the process of focusing and maintaining mental resources on relevant stimuli or tasks. Self-regulation refers to the ability to control and adjust behavior, actions, and responses in accordance with rules, goals, and situational demands. Cooperation refers to the ability to participate in shared activities by coordinating actions with others, following agreed rules, and working toward a common activity or goal. These concepts were

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used as interpretive lenses rather than as variables that were directly measured in children.

The analysis proceeded by identifying relevant evidence in the informants' descriptions of the games and organizing the evidence according to game elements, reported activities or interactions, psychological concepts, and preliminary inferences. For example, descriptions of players coordinating hand and body movements, focusing on targets or moving objects, controlling their actions according to game rules, or acting together with other players were coded and related to coordination, attention, self-regulation, or cooperation, respectively. The resulting inferences were then examined across the five games and interpreted using Vygotsky's sociocultural perspective, particularly the role of socially and culturally mediated activity and rules in play (Vygotsky, 1978, 2016). Because the study did not involve direct observation of children or measurement of their psychological behavior, these indicators and the resulting learning potential are presented as theoretical interpretations of the documented game characteristics and player activities, not as verified evidence of children's actual psychological processes or developmental outcomes.

Data credibility was supported by comparing information obtained from different adult informants and from different forms of data, including written accounts, voice recordings, and direct oral conversations. The comparison focused on the names of the games, equipment or materials, number of players, rules, procedures, player activities, and reported values or meanings. Written accounts and voice recordings were reviewed alongside information obtained through direct conversations to identify consistencies and variations in the descriptions of the five traditional games.

When variations in the information were identified, the researcher re-examined the available records and compared the information across informants and data forms before determining the description presented in the findings. The researcher did not rely on a single informant or a single form of documentation when organizing the descriptions of the games. The available written notes and voice recordings were retained as supporting research records and were reviewed during data organization and analysis.

The study did not formally conduct member checking with the informants, and no external audit was undertaken. Therefore, the study does not claim these procedures as part of its credibility strategy. Researcher reflexivity was addressed by distinguishing between the information reported by informants and the researcher's subsequent interpretation of that information from the perspective of Educational Psychology. In particular, descriptions of game characteristics and player activities were kept conceptually separate from the researcher's interpretation of their potential learning experiences. Thus, the findings are presented as interpretations grounded in the available research data rather than as direct measurements of children's psychological or developmental outcomes.

The analysis distinguishes between empirical findings derived from informants' accounts and documentation and the researcher's subsequent theoretical interpretation. The empirical findings first describe the observable or reported characteristics of the games, including their forms, equipment or materials, number of players, rules, procedures, player

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activities, challenges, interactions, and reported meanings or values. These descriptions are presented as accounts of the games based on the information provided by adult informants and available documentation.

The psychological dimensions discussed in relation to the games are presented separately as theoretical interpretations rather than as direct empirical findings. Accordingly, terms such as coordination, attention, cooperation, perseverance, self-regulation, and problem solving are used to describe potential learning experiences that can be inferred from the documented characteristics and activity structures of the games. They do not indicate that the games automatically produce or improve particular psychological abilities in children. Because the study did not involve direct observation or psychological assessment of children, these potential learning experiences should not be interpreted as demonstrated developmental outcomes.

The findings therefore provide a contextual basis for considering how traditional games may be adapted for early childhood education while maintaining their relevant cultural characteristics and considering children's age, needs, abilities, and safety.

RESULTS AND DISCUSSION

The findings show that traditional games known within the context of the Arfak community in Arfak Mountains Regency have diverse characteristics in terms of activities, rules, equipment, challenges, and interaction patterns. The five games examined in this study are Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah. These games are presented as examples of traditional game activities known within the local community rather than as a complete representation of all traditional games practiced by the Arfak community. The analysis focuses on how the characteristics of these games may provide contextual learning experiences for young children from an Educational Psychology perspective.

Identification and Characteristics of Traditional Games

The findings identified five traditional games reported by adult informants as known and played within the Arfak community in the context examined: Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah. The five games were identified through information obtained from 30 adult informants, consisting of women and men aged 19 years and above, who were purposively selected based on their knowledge of and experience with traditional games. The information was collected through direct oral conversations, voice recordings exchanged through WhatsApp, and written descriptions or notes provided by informants during September 2026. The descriptions obtained from these sources were compared to clarify the names, procedures, materials or equipment, number of players, rules, and activity patterns of the five games.

The study does not claim that all five games originated exclusively from the Arfak community or that they are uniquely indigenous to the Arfak people. This distinction is particularly important for Benteng, which is also known as a traditional game in various

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regions of Indonesia. In this study, the five games are presented as games reported by the informants as known and played within the Arfak community, rather than as a definitive inventory of games originating from or exclusive to the Arfak community. The study therefore focuses on how the games were described by the informants and on the characteristics of their play structures within the research context.

The descriptions of the games were organized according to several elements, including the name of the game, materials or equipment, number of players, rules, procedures, player activities, movement patterns, challenges, and forms of interaction. These elements were used to distinguish the empirical description of each game from the subsequent theoretical interpretation of its potential learning experiences. Kurniawan et al. (2020) explain that games involve components that organize play activities, including the name of the game, rules, equipment or media, and mechanisms for playing. Accordingly, these components provide a basis for systematically describing the five games before their potential educational significance is discussed. The characteristics of the five traditional games identified from the informants' accounts and supporting documentation are presented in Table 1.

Table 1. Characteristics of Five Traditional Games of the Arfak Community

No	Game	Game Characteristics	Dominant Activities	Main Equipment /Materials	Learning Experiences
1	Talimasuk	Group game with poles/stakes and guarding	Jumping, running, avoiding, guarding, taking turns	Short sticks/wooden poles	Balance, coordination, concentration, speed, timing, strategy, cooperation
2	Benteng	Group game involving defense, avoidance, and pursuit	Running, chasing, avoiding, interacting	Play area and fort points	Speed, agility, cooperation, strategy, reading opponents' movements
3	Batu Sepuluh	Individual game with ten stones; tossing one stone upward while taking other stones successively	Tossing, catching, taking stones step by step	Ten stones	Hand-eye coordination, concentration, accuracy, perseverance
4	Aremomsai	Jumping game following a particular pattern using the Armori flower	Jumping, maintaining balance, following a pattern	Armori flower and play area	Balance, coordination, concentration, accuracy, perseverance
5	Panah-Panah Buah	Game using small arrows/jubi to hit a moving fruit target	Aiming, estimating distance, directing, waiting	Jubi, small arrows, fruit	Hand-eye coordination, concentration, accuracy, self-control

Source: Research Data, 2026.

The mapping in Table 1 indicates that the five games share several learning-related characteristics, particularly opportunities for physical coordination, concentration, accuracy, and persistence. However, the dominant experiences differ according to the structure of each

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game. Talimasuk and Benteng, for example, involve relatively strong group interaction through running, pursuit, avoidance, guarding, and turn-taking. These activities may provide opportunities for children to experience cooperation, negotiation of rules, strategic thinking, and awareness of other players. In contrast, Batu Sepuluh and Aremomsai involve more individually organized actions that require concentration, coordination, accuracy, and perseverance. Panah-Panah Buah places greater emphasis on aiming, estimating distance, waiting, and controlling movement.

This comparison suggests that traditional games should not be treated as a homogeneous category. Differences in game structure may provide different types of learning experiences. Games involving pursuit and group interaction may create opportunities for social interaction and strategic decision-making, whereas games requiring repeated individual actions may provide opportunities for concentration, coordination, accuracy, and persistence. The learning experiences identified in this study therefore emerge from the specific characteristics of each game rather than from the general category of "traditional games."

This finding is consistent with Fadlillah (2023), who explains that play provides children with opportunities to develop various abilities through enjoyable activities. Purnama et al. (2019) likewise describe play activities as potentially involving physical-motor, cognitive, social, and environmental interaction aspects. From an Educational Psychology perspective, these characteristics are important because children's learning experiences are closely related to the activities in which they participate and the interactions they encounter during play.

At the same time, the identified learning experiences should not be interpreted as automatic developmental outcomes. A game does not inherently or independently produce a particular ability in every child. Children's experiences may be influenced by their age and abilities, the way the game is organized, the play environment, interactions among players, adult guidance, and the extent to which the traditional game is adapted to educational purposes. Accordingly, the findings of this study are interpreted as potential learning experiences rather than evidence of causal relationships between traditional games and children's development.

The cross-game comparison also indicates that local traditional games may provide varied opportunities for early childhood learning when their characteristics are understood and appropriately adapted. The pedagogical relevance of a game therefore depends not only on its cultural value but also on how educators interpret its activity structure and integrate it into developmentally appropriate learning experiences.

Talimasuk: Movement, Strategy, and Group Interaction

Talimasuk is traditional game played by two groups with an equal number of participants. For example, each group may consist of eight players. Based on the latest interview data, the game begins by drawing two rectangular grid-like playing areas on the ground, one for Group A and another for Group B. The number of rows is adjusted according

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to the number of group members. If each group consists of eight players, the playing area is divided into seven rows guarded by seven group members, while the remaining member guards the front area. The example of eight players illustrates the arrangement described by the informant and does not indicate a fixed number of participants.

In the game, Group A takes the role of the playing group, while Group B acts as the guarding group. The guards occupy designated positions at the front and along the guarding lines on the right and left sides of the playing area. Players from Group A must run from the starting line to the finish line and then return to the starting line without being touched by the guards from Group B. While crossing the rows, players attempt to avoid being touched, locally referred to as *tek*, and must remain within the boundaries of the drawn grid. A player who is touched by a guard or steps outside the designated area is considered unsuccessful in completing the course according to the rules described. The turn then continues with the next group member. After Group A has completed its turn, the groups may exchange roles according to the rules practised in the local community. This description is based on interview data and does not represent the results of direct observation of the game being played.

From the perspective of Early Childhood Educational Psychology, Talimasuk can be understood as a traditional game that offers opportunities for learning through direct experience. Running through the rows guarded by opposing players and returning to the starting line may involve movement coordination, agility, attention, and response control. Players also need to pay attention to the guards' positions, adjust their movement, and decide when to move through each row without crossing the boundaries of the playing area. These characteristics suggest the potential involvement of motor and cognitive processes during the game.

The social-emotional dimension can also be considered in relation to the game's structure, which involves two groups with different roles. Participation may provide opportunities for children to practise following rules, waiting for their turns, recognising the roles of other group members, and interacting with peers. Winning and losing may also create opportunities to learn about managing emotions and accepting the outcome of a game. Agustin et al. (2024) explain that play can provide a context for developing values such as cooperation, responsibility, perseverance, independence, and sportsmanship.

Overall, Talimasuk has potential as a play-based learning activity involving motor, cognitive, and social-emotional dimensions. The rules and boundaries create movement-related challenges, the presence of guards may require attention and strategic decisions, and the division of roles provides opportunities for social interaction. However, these potential benefits should not be interpreted as developmental outcomes that have already been empirically demonstrated. Because the present description is based on interview data rather than direct observation of children playing Talimasuk, the discussion of its possible developmental contributions should be understood as an interpretation of the game's characteristics in relation to relevant theory, rather than as an empirical finding about children's actual behaviour.

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From the perspective of Vygotsky's sociocultural theory, Talimasuk can be examined as a culturally situated activity structured by rules and social roles. Based on the interview data, the game involves two groups, designated guarding positions, and a playing area divided into rows of boxes drawn on the ground. Players must move from the starting line to the finish line and return without being touched by the guards or stepping outside the designated area. These rules organize the players' activities and establish a context in which movement and interaction take place. In line with Vygotsky's perspective, the social organization and rules of the game provide a basis for interpreting its potential learning opportunities (Vygotsky, 1978, 2016). However, the present data do not establish how children understand or respond to these rules in actual play.

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The characteristics of Talimasuk can also be discussed in relation to previous research on traditional games. Purnama et al. (2019) describe traditional games as activities that can provide opportunities for physical movement, interaction, cooperation, and strategy development. Sudaryanti et al. (2024) discuss traditional games in relation to physical-motor and social-emotional experiences, while Suwarni et al. (2024) focus on their potential for gross motor stimulation, concentration, and agility. These studies provide a broader context for considering the educational potential of traditional games. Nevertheless, their findings cannot be directly attributed to Talimasuk because the games and research methods differ. In the present study, the interview data describe the structure and rules of Talimasuk but do not provide direct evidence of changes in children's motor, cognitive, or social-emotional abilities.

The game's structure suggests several possible learning experiences. Running through the designated area may involve movement coordination and agility, while avoiding the guards may require players to attend to their positions and make decisions about their movements. The division into groups and the presence of shared rules may also create opportunities for social interaction and participation in a rule-governed activity. These interpretations are consistent with the study's analytical framework, which examines game structure, activities, challenges, and interactions as a basis for identifying potential learning experiences. However, they remain theoretical interpretations rather than observed findings. The available data do not establish whether children actually demonstrate these abilities, how they manage winning and losing, or whether participation produces measurable

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developmental changes.

The absence of direct observation also limits conclusions about differences in how children of different ages participate in Talimasuk or how the game may be practised in different local settings. Although the interview description indicates that the game can be played by people of different ages, including young children, the present data do not establish age-specific differences in behaviour or learning outcomes. Therefore, rather than confirming that Talimasuk improves particular developmental abilities, this study identifies characteristics of the game that may be relevant to early childhood learning. Direct observation and further age-appropriate research are needed to examine how children participate in the game and whether the potential learning experiences identified here are evident in practice.

Benteng: Interaction, Movement, and Decision-Making

Benteng is a group game known for activities involving the defense and attack of a group's territory or fort, together with movements of chasing and avoiding opponents. The game is played by two groups, each consisting of four to ten players. Each group selects a place to serve as its base, usually a pole, a piece of wood, or a stone, which serves as the "fort." The two groups play *suit* (locally referred to as *suteng*) to determine which group wins and which group loses in the initial contest to chase the opposing players. A player who touches their fort first, or whose touch is more recent, has the right to chase and capture an opponent. Conversely, a player whose last touch of the fort occurred earlier must be cautious because they may be easily captured by an opponent who touches them.

During the game, players typically return to touch their own fort to renew their status and strengthen their position when facing opponents. This action is often performed before launching an attack or rescuing a captured teammate. As a result, the area around the fort becomes one of the most important and busiest locations in the game. Players must move quickly between attacking the opposing team's territory and returning to defend their own fort. Its main characteristic lies in relationships among players and the decisions that must be made during the game. Players do not move individually only, but must consider the positions of group members and opponents.

These characteristics make Benteng a dynamic play experience. Children must pay attention to the game situation, decide when to move, when to avoid, and how to respond to other players' actions. Such activities provide opportunities for children to learn through changing situations that require immediate responses.

From the perspective of Educational Psychology in Early Childhood Education, a game such as Benteng demonstrates that learning can occur through social interaction and direct experience. Children learn to understand rules not only by listening to explanations but also through participation in the game. Children also learn that actions have consequences for themselves and their group.

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Another potential aspect is self-control. Children need to regulate the impulse to move hastily and observe the game situation before taking action. Interaction among players also provides experiences in communication, cooperation, dealing with success or failure, and adapting to group rules.

This finding supports Kurniawan et al. (2020), who argue that games have mechanisms and rules that organize play activities. In Benteng, these rules become an important part of children's experiences because they guide how children move, interact, and make decisions.

Because this study focuses on games within the context of the Arfak community, Benteng is not positioned as a game exclusively owned by the Arfak people. The analysis is directed toward how the game is known and played within the local community and how its activity characteristics can be understood as children's play experiences.

Batu Sepuluh: Concentration, Coordination, and Perseverance

Batu Sepuluh is an individual traditional game involving ten stones. Based on the available description, the player tosses one stone into the air and picks up another stone from the ground before the tossed stone falls. This process is repeated step by step until the stones have been collected according to the game rules. The present interview-based description does not provide further details about the size of the stones, the complete sequence of game stages, or a specific age range for the players. Therefore, these aspects cannot be specified without additional supporting data.

The structure of Batu Sepuluh suggests potential learning experiences involving hand-eye coordination, timing, attention, and movement control. The player needs to coordinate the action of tossing a stone with picking up another stone within a limited time. These characteristics provide a basis for interpreting the game from the perspective of Educational Psychology in Early Childhood Education. However, because the study did not directly observe children playing Batu Sepuluh, these abilities should be understood as potential demands of the activity rather than demonstrated abilities or developmental outcomes.

From the perspective of Vygotsky's sociocultural theory, Batu Sepuluh can be examined as a culturally situated activity organized by rules and a sequence of actions. The player's task is structured by the requirements of the game, providing a context in which actions are performed according to established procedures. Repeated attempts may offer opportunities to adjust movements and become familiar with the task. Nevertheless, the available data do not establish whether children actually modify their strategies, demonstrate perseverance, or improve their performance through repeated play.

Previous research has discussed traditional games as potential contexts for physical activity, concentration, and other learning experiences (Purnama et al., 2019; Suwarni et al., 2024). These studies provide a broader context for considering the educational potential of Batu Sepuluh, but they do not establish the specific developmental effects of this game. Accordingly, the present analysis focuses on the relationship between the game's reported

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characteristics and the learning experiences they may afford, rather than claiming that participation necessarily improves children's coordination, concentration, or perseverance.

The suitability of Batu Sepuluh for young children also requires careful consideration of safety. Because the game uses stones, small stones may pose a choking risk if young children put them in their mouths. The available data do not specify the original stones' dimensions or establish the age at which the game is appropriate. As a pedagogical recommendation, educators and caregivers should assess children's age and abilities, supervise the activity, and consider using larger, age-appropriate objects that cannot easily be swallowed. Such adaptations should be identified as safety measures for educational use, not as part of the original traditional form of Batu Sepuluh.

Overall, Batu Sepuluh provides an example of how a traditional game using simple materials can be analyzed in terms of its rules, actions, and potential learning experiences. Further research involving direct observation would be needed to document the complete playing stages, the materials used, variations in practice, and how children of different ages participate. Such evidence would help clarify the game's educational potential and the adaptations needed for safe use in early childhood education.

Aremomsai: Local Materials, and Potential Learning Experiences

Aremomsai is a traditional game in the Arfak community identified through information provided by informants. The informants reported that they had played this game during their childhood and that it is still played by children today. These accounts suggest continuity in the practice of traditional games across generations within the community. The description presented in this study is based on information provided by the informants and is interpreted by the researcher in relation to the characteristics of the game and its potential relevance to early childhood learning.

Based on the information obtained, Aremomsai shares several characteristics with engklek, a traditional game known by different names in various parts of Indonesia. Both games involve squares drawn on the ground, hopping on one foot or using both feet according to the rules, and following a particular sequence of squares. A distinctive feature reported for Aremomsai is the use of the Armori flower as a playing marker, rather than pieces of roof tile or flat stones used in some variations of engklek. This comparison concerns similarities in the reported form of play and does not establish that Aremomsai originated from or was adapted from engklek. The use of the Armori flower is noted as a characteristic of the game based on the information available, while any additional cultural meaning associated with the flower requires further investigation.

From the perspective of Educational Psychology in Early Childhood Education, the reported characteristics of Aremomsai suggest potential learning experiences involving gross motor coordination, balance, attention, and movement control. Hopping between squares may require players to coordinate their body movements and maintain balance while following the sequence and rules of the game. Players may also need to pay attention to the position of the

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squares and the requirements of each stage. These characteristics provide a basis for discussing the potential educational relevance of Aremomsai. However, because the present study did not directly observe children playing the game or measure their developmental abilities, these aspects should be understood as potential demands of the activity rather than demonstrated learning outcomes.

Vygotsky's sociocultural theory provides a relevant perspective for examining Aremomsai as a culturally situated activity shaped by shared practices and rules (Vygotsky, 1978, 2016). From this perspective, traditional games can be considered potential contexts in which children encounter cultural practices and learn to participate in activities organized by community conventions. The informants' accounts that they played Aremomsai during childhood and that children continue to play it today provide a basis for discussing the continuity of this traditional game across generations. Nevertheless, the available information does not establish precisely how the game is transmitted to children, whether parents or older community members teach its rules, or how social interaction occurs during play. These questions require further investigation.

Previous studies have discussed traditional games as potential contexts for physical activity, social interaction, and learning in early childhood (Purnama et al., 2019; Sudaryanti et al., 2024; Suwarni et al., 2024). This literature provides a broader context for examining the possible educational relevance of Aremomsai. However, findings from other traditional games cannot automatically be applied to Aremomsai. The potential roles of balance, coordination, attention, and rule-following discussed here are interpretations based on the reported characteristics of the game, rather than effects demonstrated by the present study.

The use of the Armori flower also provides a relevant point for considering the relationship between traditional play and locally available materials. Its use as a playing marker distinguishes the reported form of Aremomsai from some versions of engklek that use other objects. In an early childhood education setting, this feature may provide an opportunity for educators to introduce children to traditional games and materials associated with their local environment. Such an educational application should respect the community's knowledge and the original form of the game. Any modification of the materials or playing procedures for classroom use should be considered a pedagogical adaptation rather than presented as part of the traditional rules.

The suitability of Aremomsai for children of different ages should also be considered in relation to their abilities and the actual procedures of the game. Although informants reported that children continue to play it, the available information does not establish a specific age range or provide direct evidence of how children at different developmental stages participate. Educators who introduce the game in early childhood settings should therefore consider the playing area, movement requirements, supervision, and the suitability of the playing marker for the children's age and abilities. These considerations are pedagogical recommendations, not claims about the original form of the game.

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Overall, Aremomsai illustrates how a traditional game reported by members of the Arfak community can be examined in relation to cultural continuity, local materials, and potential learning experiences in early childhood. Its similarities to engklek offer a point of comparison, while the reported use of the Armori flower distinguishes its material characteristics. By interpreting the game through the perspective of Educational Psychology and Vygotsky's sociocultural theory, this study identifies possible connections between traditional play, cultural practices, and children's learning opportunities without claiming direct evidence of developmental effects. Further research involving direct observation and more detailed documentation of the playing procedures would help clarify variations in practice, the role of the Armori flower, and how children engage with Aremomsai today.

Panah-Panah Buah: Coordination, Accuracy, and Local Skill Context

Panah-Panah Buah is a traditional activity reported by informants from the Arfak community. The activity involves the use of a bow-and-arrow-type tool and a jubi to hit fruit used as a target. The description of the equipment, targets, and practice should be understood in the context provided by the informants. The term *jubi* is retained as a local term; its specific form and relationship to the other equipment require further clarification from informants if a more detailed technical description is needed. The informants' accounts also provide a basis for understanding the activity as part of a locally known skill associated with childhood and the use of archery equipment within the community. However, the available information does not establish the precise circumstances in which the activity is performed, the particular types of fruit used, or the ages and roles of the practitioners.

From the perspective of Educational Psychology, the reported characteristics of Panah-Panah Buah suggest that the activity involves attention to a target, distance estimation, directional control, and coordination between visual information and bodily movement. These characteristics can be discussed as potential cognitive and motor demands of the activity. Nevertheless, this interpretation does not mean that the present study has demonstrated specific learning outcomes in children. The study relies on information provided by informants and does not include direct observation of children performing the activity or an assessment of their abilities.

Vygotsky's sociocultural theory provides a framework for considering Panah-Panah Buah as a culturally situated practice involving tools, established ways of acting, and knowledge associated with the local community (Vygotsky, 1978, 2016). From this perspective, documenting the activity contributes to understanding the relationship between traditional skills and cultural knowledge. However, the available information does not establish how this skill is taught, how practitioners learn to use the equipment, or how knowledge is transmitted between generations. These aspects should not be assumed without further evidence from informants or additional research.

The traditional practice described above must be distinguished from its possible educational adaptation for early childhood education. Because bow-and-arrow equipment and

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other pointed projectiles can cause injury, the original equipment must not be used in PAUD activities. If educators wish to introduce the cultural context of Panah-Panah Buah, they may develop a separate, safe simulation that does not reproduce the hazardous aspects of the original practice. Such a simulation should use soft, non-sharp replica equipment and static targets made from soft materials. Sharp arrows, spears, and other pointed projectiles must be prohibited. The activity should take place in a controlled area with a clearly defined target zone, sufficient separation between participants and targets, and no person standing in the line of action or behind the target. Only one child should participate in the activity at a time, while other children remain in a designated waiting area. An educator must supervise the activity continuously, check the equipment and environment beforehand, and select materials and procedures appropriate to the children's ages and abilities. If these conditions cannot be met, educators should introduce the cultural context through pictures, storytelling, or demonstrations using non-functional replicas instead.

These safety measures are pedagogical recommendations proposed by the researcher; they are not descriptions of the original Panah-Panah Buah practice and have not been evaluated as an educational intervention in this study. Any future use in PAUD would require appropriate risk assessment and careful implementation. The purpose of the proposed adaptation is to introduce children to the cultural knowledge associated with the activity without exposing them to the risks of using actual archery equipment or sharp projectiles.

This distinction highlights an important consideration in incorporating local wisdom into early childhood education. Cultural documentation and classroom adaptation are related but separate processes. Documenting Panah-Panah Buah helps preserve information about a traditional practice, whereas adapting its cultural context for young children requires educators to consider developmental appropriateness, safety, and the learning objectives of the activity. Accordingly, the educational relevance of Panah-Panah Buah lies not in transferring the original practice directly into the classroom, but in examining its cultural significance and considering whether selected elements can be introduced through safe, age-appropriate educational activities.

Relationship Between Game Structure and Potential Learning Experiences

Traditional games provide varied opportunities for children to engage in physical movement, attention, coordination, social interaction, and problem-solving activities. Their potential educational relevance may be considered in relation to their reported structures, rules, materials, and patterns of participation (Fadlillah, 2023; Purnama et al., 2019; Sudaryanti et al., 2024). However, the opportunities associated with a game may vary according to children's ages and abilities, familiarity with the rules, the playing environment, and the guidance available from adults or peers. Therefore, differences in game structure may provide different opportunities for learning, but they do not necessarily produce the same experiences or outcomes for every child.

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A comparison of the five games indicates similarities and differences in the types of activities and challenges associated with their reported characteristics. Coordination and attention are relevant to several games, while group interaction, strategic decision-making, movement control, and the use of local materials vary across the games. These relationships are examined through a proposed interpretive framework in which reported game characteristics provide opportunities for particular activities and interactions, which may in turn be associated with potential learning experiences. The framework is intended to guide interpretation rather than establish a causal sequence. It is not an empirically verified model of children's learning.

In this study, *play experience* refers to the activities and interactions associated with the reported rules and procedures of a game, such as running, avoiding a guard, picking up stones, hopping between squares, or aiming at a target. *Potential learning experience* refers to the educational opportunities that the researcher interprets from these activities using concepts from Educational Psychology. For example, a game that requires players to move through a defined area while avoiding guards may provide opportunities to consider movement coordination, attention, and decision-making. However, this interpretation does not demonstrate that children actually display these abilities or improve them through playing. The distinction is particularly important because the present study draws on information provided by informants and does not include direct observation of children playing the games.

Vygotsky's sociocultural theory provides a theoretical basis for examining traditional games as culturally situated activities organized through rules, shared practices, and social interaction (Vygotsky, 1978, 2016). From this perspective, the rules and materials of a game provide a context for interpreting how children might participate in culturally meaningful activities. The potential relationship between a game and learning may also depend on how its rules are communicated, whether more experienced participants provide guidance, and how children engage with others during play. Nevertheless, the available data do not establish the specific ways these processes occur in each game. The theoretical discussion therefore identifies possible learning opportunities rather than observed mechanisms or demonstrated developmental changes.

The five games illustrate different possibilities. Talimasuk involves two groups, a playing area divided into rows of boxes drawn on the ground, and attempts to cross the opposing group's guarded area without being touched. Its reported rules provide a basis for considering the potential roles of movement coordination, attention to opponents, and decision-making within a shared activity. Benteng involves defending a base, pursuing opponents, and interacting between groups. These characteristics provide a context for considering how group rules and interaction may create opportunities for decision-making, cooperation, and self-regulation. Batu Sepuluh involves tossing one stone and collecting another before the tossed stone falls, according to the game's sequence. Its reported structure may place demands on visual attention, timing, and coordination between actions. Aremomsai involves hopping through squares drawn on the ground and uses the Armori flower as a

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playing marker. Its reported characteristics provide a basis for considering balance, movement coordination, attention to the sequence of squares, and engagement with locally used materials. Panah-Panah Buah involves bow-and-arrow-type equipment and a jubi to hit fruit used as a target. Its characteristics may be discussed in relation to aiming, attention, and directional control, but the original cultural practice must be distinguished from any proposed safe simulation for early childhood education.

Table 2 presents a comparative matrix linking information provided by informants to the researcher's theoretical interpretation. It distinguishes reported game characteristics from potential learning experiences and identifies relevant contextual and safety considerations.

Table 2. Proposed Interpretive Framework Linking Traditional Game Characteristics and Potential Learning Experiences

Game	Data source and reported structure	Cultural context and theoretical concepts	Potential learning experiences inferred by the researcher	Contextual and safety considerations
Talimasuk	Informant accounts describe two groups, a playing area divided into rows of boxes drawn on the ground, guarded lines, and attempts to cross the opposing group's area without being touched.	A locally reported game organized around group roles and shared rules. A sociocultural perspective draws attention to rule-governed participation and interaction.	The movement and guarding structure may provide opportunities to consider coordination, attention to opponents, and decision-making during group play.	The description is based on informant accounts, not direct observation. Eight players is an illustrative example, not a fixed rule. The analysis does not establish actual child performance.
Benteng	Informant-based descriptions identify group play, a defended base, pursuit, and attempts to defend or reach the opposing group's base.	Group roles and shared rules provide a context for examining social participation and rule-governed activity.	The reported structure may provide opportunities to consider decision-making, movement coordination, cooperation, and self-regulation.	Actual interactions and children's responses were not directly observed. These potential experiences should not be interpreted as demonstrated social or emotional outcomes.
Batu Sepuluh	Informant accounts describe an individual game involving ten stones, tossing one stone, and collecting another before the tossed stone falls, with actions repeated according to the rules.	Simple materials and a sequence of actions provide a context for examining rule-governed activity and coordination between actions.	The sequence may place demands on visual attention, timing, hand-eye coordination, and movement control.	The complete sequence, stone dimensions, and appropriate age range are not established by the available data. Small stones may pose a choking risk to young children. Safer materials would be an educational adaptation, not an original game feature.

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Aremomsai	Informant accounts describe squares drawn on the ground, hopping movements according to the rules, and the use of the Armori flower as a playing marker.	The flower provides a point of connection between the reported game and locally used materials. Similarities to engklek are comparative and do not establish historical origin.	The reported movements may provide opportunities to consider balance, gross motor coordination, attention to the sequence of squares, and movement control.	The complete procedures, age-related variations, and additional cultural significance of the flower have not been established. These interpretations are not based on direct observation.
Panah-Panah Buah	Informant-based information identifies bow-and-arrow-type equipment and a jubi used to hit fruit as a target. Further details about the equipment, targets, and practitioners must remain grounded in informant accounts.	The activity is considered a culturally situated practice involving locally known skills and equipment. Its original form is distinguished from a proposed educational simulation.	The reported activity may involve aiming, attention to a target, directional control, and estimating distance. These are inferred demands of the activity, not measured child abilities.	Actual archery equipment and sharp projectiles must not be used in PAUD activities. Any proposed simulation should use soft, non-sharp replica equipment and static targets in a controlled environment, with safe distances, continuous supervision, and age-appropriate procedures. These adaptations have not been evaluated in this study.

Source: Researcher's analysis based on information provided by informants and the theoretical framework used in this study, 2026

The comparison indicates that the five games differ in the contexts through which potential learning experiences may arise. Talimasuk and Benteng are characterized by group roles, movement, and interaction with opponents, whereas Batu Sepuluh involves a sequence of individual actions using stones. Aremomsai combines movement through a defined pattern with the reported use of a local flower as a playing marker. Panah-Panah Buah involves aiming with traditional equipment and requires particular caution when its cultural context is considered for educational use. These differences suggest that traditional games should not be treated as a homogeneous category when discussing their potential educational relevance.

This interpretation is consistent with Kurniawan et al. (2020), who emphasize the importance of understanding games through their structures and mechanisms. It also relates to Purnama et al. (2019), who discuss the potential contribution of traditional games to physical-motor, cognitive, and social experiences. The present study adds a comparative perspective by examining how the reported characteristics of five games may be related to different opportunities for activity and interaction. However, findings from previous studies do not establish that the five games examined here produce the same effects.

The proposed framework also recognizes that the relationship between game characteristics and potential learning experiences is conditional rather than automatic. Children may participate differently according to age, physical abilities, familiarity with the

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game, the playing environment, and the support provided by adults or peers. The available information does not establish how these conditions influence children's participation in each game. Direct observation and further age-sensitive research would be needed to investigate such relationships and determine whether the proposed learning opportunities are realized in practice.

Overall, the framework provides an interpretive basis for examining traditional games through their reported rules, materials, activities, and cultural contexts. It distinguishes the documentation of traditional practices from theoretical interpretations of their educational potential and from developmental outcomes that would require direct empirical evidence. For educators, this distinction supports the careful consideration of game selection and adaptation while respecting local cultural knowledge, children's needs, and safety requirements.

Traditional Games as Contextual Learning Experiences

The findings show that the five games can be understood as part of play experiences connected with the social and cultural environment of the Arfak community in Arfak Mountains Regency. This connection is visible through the use of simple materials, forms of physical activity, game rules, interactions among players, and environmental elements such as the Armori flower and fruit.

The cultural context provides opportunities for children to learn from things that are close to the life of their community. Such learning may be more meaningful because children are not confronted with experiences that are entirely abstract. They can recognize objects, movements, rules, or activities connected with their social environment.

In the context of early childhood education, these experiences are consistent with the principle of learning through play. Halimah (2016) emphasizes that play is a way of learning for young children. Nutbrown and Clough (2015) also highlights the importance of viewing play and learning as experiences closely related to early childhood pedagogical practice. Therefore, traditional games can be positioned as contextual activities that allow children to learn through direct experience.

The use of traditional games as contextual learning experiences is also supported by studies showing that traditional games can be incorporated into early childhood learning while maintaining meaningful physical, social, and cultural experiences (Adi et al., 2020; Khadijah & Wahyuni, 2024). In this context, educators need to consider the characteristics of the game, children's abilities, the learning environment, and safety requirements when adapting traditional activities for early childhood settings.

Research on play-based programmes in Indonesia also indicates that teachers' pedagogical practices can shape how play is connected with children's learning experiences and cultural contexts (Utami et al., 2020).

However, utilizing traditional games in early childhood education requires adaptation. Not every form of a game can be directly applied in learning activities. Teachers need to consider children's age, number of participants, play-area size, complexity of the rules,

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equipment used, duration of play, and safety.

Thus, utilizing local wisdom in early childhood education does not only mean preserving games, but also understanding why and how a particular game can provide learning experiences for children. This approach makes local culture not merely content that is told to children, but part of a learning experience that can be experienced directly.

Educational Psychology in Early Childhood Education Perspective

From the perspective of Educational Psychology in Early Childhood Education, the characteristics of these games can be interpreted as providing potential learning experiences related to cognitive, motor, social, and emotional aspects. These potential experiences are reflected in the game activities, rules, challenges, interactions, and opportunities for players to act, adjust their movements, and respond to the situations presented by the games.

Recent international research further emphasizes that play-based learning can provide diverse learning experiences in early childhood, including opportunities related to cognitive, social-emotional, and other aspects of children's learning (Mohammed et al., 2026).

First, games provide active learning experiences. Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah position children as active participants. The game activities require players to move, attempt actions, observe the game situation, and adjust their actions in response to the demands of the game.

Second, games provide challenges that encourage thinking processes. The game structures require players to anticipate movements, understand rules, determine strategies, and adjust their actions when facing challenges. This indicates that play is not only relateds to physical activity but also involves cognitive processes.

Third, games provide social experiences. Particularly in Talimasuk and Benteng, children need to understand the presence of other players, follow group rules, wait for turns, and cooperate. Such experiences can provide a context for social learning.

Fourth, games provide self-regulation experiences. Children need to control their movements, wait for the appropriate time, accept failure, and try again. These experiences are important because play provides space for children to learn to deal with success and failure in relatively natural situations.

Fifth, games provide culturally based contextual experiences. Aremomsai, through the use of the Armori flower, and Panah-Panah Buah, through its local skill context, show that children's learning experiences can be connected with their community's cultural environment.

These five findings show that Educational Psychology in Early Childhood Education can be used to view traditional games not only in terms of "what developmental aspect is being trained," but in terms of how children learn through play experiences. This shift in perspective is important so that games are not reduced to tools for achieving particular indicators, while the natural characteristics of play-enjoyment, choice, exploration, and direct experience—are maintained.

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Gray and Palaiologou (2022) emphasize the importance of exploration, intrinsic motivation, imagination, and opportunities to experience safe failure in children's play experiences. This reinforces the finding that learning experiences through games should be understood as active and meaningful processes, rather than merely as measurable end results.

Social Values and Character in Games

In addition to physical and cognitive experiences, traditional games provide space for social experiences and the formation of values. In group games, children encounter shared rules and the presence of others. Children learn that joint activities require agreement, turn-taking, cooperation, and respect for rules.

Traditional games may provide opportunities for learning experiences related to social interaction, cooperation, turn-taking, rule-following, perseverance, sportsmanship, and self-control. Such experiences are consistent with previous studies that have examined traditional games as contexts for character development and social-emotional learning in early childhood (Adi et al., 2020; Asih & El-Yunusi, 2024; Hajeni et al., 2023; Wabiser et al., 2024). These findings support the view that the educational potential of traditional games is not limited to physical activity but also includes social and character-related experiences.

Talimasuk and Benteng specifically demonstrate the importance of group interaction. Children must adjust their actions to group members and opponents. Experiences of winning and losing also provide opportunities to learn about sportsmanship and emotional control.

In individual games such as Batu Sepuluh, character-related experiences are more visible through perseverance, patience, concentration, and the courage to try again. Aremomsai also requires perseverance in following movement patterns, while Panah-Panah Buah requires patience and self-control in directing action toward a target.

Agustin et al. (2024) show that games can become a context for character development, including cooperation, responsibility, honesty, perseverance, independence, and sportsmanship. Thus, character values do not always need to be taught through verbal explanation. Values can emerge through children's experiences when following rules, interacting, facing challenges, and completing games.

The Role of Educators in Utilizing Traditional Games

The findings suggest that traditional games may provide potential learning experiences for young children. However, their educational use depends partly on how educators prepare the play environment and support children's participation. Rather than transforming games into formal learning activities dominated by instructions, educators can act as facilitators who create opportunities for children to engage in play while respecting the cultural characteristics of each game.

Educators may support children's participation by explaining rules when necessary, providing age-appropriate guidance, observing how children engage with the game, and ensuring a safe playing environment. They can also help children understand turn-taking,

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follow agreed rules, and interact with their peers during play. These practices should remain responsive to children's abilities, the characteristics of the game, and the local context in which it is played.

From an Educational Psychology perspective, the educator's role can be understood through Vygotsky's sociocultural perspective, which emphasizes the importance of social interaction and guidance in learning. In traditional games, interactions among children and between children and educators may provide opportunities for learning through participation and shared activities. Nevertheless, such opportunities should not be interpreted as evidence that particular developmental outcomes have occurred. Since the present study draws on information provided by informants rather than direct observations of children playing, these interpretations require further examination through research involving direct observation in early childhood education settings.

Therefore, the use of Arfak traditional games in early childhood education should balance educational considerations with cultural respect, children's participation, and safety. Educators may adapt the way games are introduced to suit children's ages and abilities, but such adaptations should be distinguished from the original cultural practices described by informants.

CONCLUSION

This study examined five traditional games that constitute the focus of the research within the context of the Arfak community in Arfak Mountains Regency, namely Talimasuk, Benteng, Batu Sepuluh, Aremomsai, and Panah-Panah Buah. These five games are examples of the diverse traditional games known within the local community and are not intended to represent all traditional games found in the region. Each game has different characteristics in terms of rules, equipment or materials, activity patterns, challenges, and forms of interaction. These differences result in diverse play experiences and indicate potential learning experiences that can be analyzed from the perspective of Educational Psychology in Early Childhood Education.

The analysis shows that game characteristics are related to the types of activities and challenges faced by children. Talimasuk emphasizes movement, balance, strategy, and group interaction; Benteng provides experiences of movement, social interaction, and decision-making; Batu Sepuluh involves hand-eye coordination, concentration, accuracy, and perseverance; Aremomsai combines balance, coordination, and movement accuracy with local environmental elements through the use of the Armori flower; while Panah-Panah Buah involves hand-eye coordination, concentration, accuracy, and familiarity with a skill known within the local community.

The findings show that traditional games can be understood as play experiences that potentially support children’s learning processes through active involvement, interaction, problem solving, self-control, and direct experience with the cultural environment. The perspective of Educational Psychology in Early Childhood Education in this study

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demonstrates that the educational potential of games does not lie only in the developmental aspects intended to be achieved, but in the learning processes and experiences that emerge when children participate in play activities.

This study is limited by its focus on five traditional games and its reliance on information obtained from adult informants without direct observation of children's play or triangulation with early childhood education teachers and children.

Theoretically, these findings enrich the perspective of Educational Psychology in Early Childhood Education by demonstrating that the potential learning experiences of traditional games can be understood through the relationship between game structure, children's activities, challenges, interactions, and the cultural and environmental context of play.

This study has several limitations. First, it focuses on five purposively selected traditional games from the Arfak community. Therefore, the findings do not represent the full range of traditional games practiced within the community. Second, the study is situated within a specific community and geographical context in the Arfak region of Arfak Mountains, Papua, Indonesia. The findings should therefore be interpreted in relation to this context and should not be generalized to other communities without further investigation.

Third, the study relies on information provided by informants and available documentation. It does not include direct observations of children playing the games or direct engagement with children in early childhood education (ECE) settings. Consequently, the descriptions of game characteristics and activities reflect the information obtained from these sources rather than systematically observed play practices. Fourth, the study does not involve the implementation of traditional games in ECE classrooms or an assessment of their educational effectiveness. Therefore, the potential learning experiences discussed in this article should not be interpreted as demonstrated developmental outcomes or evidence of improvements in children's abilities.

Despite these limitations, the study offers a preliminary pedagogical mapping of selected Arfak traditional games by relating their reported characteristics and activities to concepts in Educational Psychology. This mapping provides a basis for developing hypotheses about their possible educational relevance and for considering potential adaptations for ECE settings. However, these interpretations and proposed adaptations require further investigation through direct observation of children's play, engagement with educators and children, and empirical assessment of their feasibility, safety, and educational value in age-appropriate learning environments.

Future research can develop this study by observing the implementation of adapted games in early childhood education activities to obtain empirical data on children's experiences and responses during play. Further studies may also compare Arfak traditional games with traditional games from other regions to identify similarities and differences in their potential learning experiences. In addition, future research may develop an early childhood learning module based on Arfak traditional games while maintaining their relevant

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cultural characteristics and ensuring children's safety.

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Author Contributions
Marlina Nasrani Juliana was responsible for conceptualization, methodology, investigation, data curation, formal analysis, and writing original draft preparation. The author also conducted writing, review and editing and approved the final version of the manuscript.

Conflict of Interest
The author declares no conflict of interest.

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