Re-inventing Vernacular Heritage for the Modern World: Integrating the Philosophical Values of Traditional Games in Early Childhood Education in Indonesia

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Abstract

Traditional games have a special place in the culture of every nation. They are an integral part of the cultural heritage of each country, meant not only for entertaining but also to pass down deep philosophical values. In Indonesia, many such games exist and they are being now integrated into early childhood education in order to infuse the philosophical values they propagate, into the children's educational upbringing.

This study explores the integration of the philosophies and values of traditional games in a project learning model in Indonesia to improve the problem solving skills in early childhood. The setting is the schools offering early childhood education in Indonesia.

The research employs a qualitative approach using observations, interviews, and document analysis as data gathering techniques. It employs case studies where the observations take place and the interviews are held with the teachers of selected schools.

Findings show that the integration of philosophies and values of traditional games in the project learning models provide rich and meaningful learning experiences for young children. It affirms that the values such as cooperation, perseverance, creativity, and fairness highlighted in the traditional games help in the development of problem-solving skills. These findings indicate the need to pay attention to cultural heritage in early childhood education and the importance of integrating cultural values in the learning process. The paper concludes that the integration of the philosophical values of traditional games in the project learning models can be an effective strategy to improve problem solving skills in early childhood education.

Keywords: Cultural Heritage, Philosophical Values, Project Approach, Problem Solving, Early Childhood

Introduction

Cultural integration in learning is a crucial step in enriching the educational experience of students around the world. Culture is the root of a nation's identity, which includes traditions, values, languages, arts and norms that are passed down from generation to generation. In this era of globalization, where intercultural interactions are increasing, it is important for every country to recognize and appreciate cultural diversity and utilize it in the learning contexts. Cultural integration in learning plays an important role in maintaining the cultural identity of each country. In fact, it is the foundation of national unity and pride. By introducing students to their own culture, be it in the form of history, tradition or language, education helps to strengthen a sense of national pride and identity. Furthermore, the integration of culture in learning allows for a more diverse and engaging learning experience for the students.

Many aspects of culture contain moral teachings and social norms that are passed down from generation to generation. When every country strengthens its cultural education, it not only enhances appreciation of the diversity of cultures around the world, but also promotes intercultural dialog and peace. By understanding and appreciating the cultures of others, strong bridges between different communities cab be built to realize the vision of a more inclusive and sustainable world. The integration of culture in learning is an important and urgent step for every country in the world. By strengthening cultural education, we not only enrich students' educational experience, but also promote cultural diversity, foster intercultural tolerance and strengthen national identity. This is an important investment in a brighter, more harmonious and inclusive future for the future generations.

One of the countries with a rich cultural heritage is Indonesia, which has a rich diversity of cultures and traditions. Indonesia is home to a diverse traditional cultural heritage that has become an integral part of the nation's identity. This cultural heritage includes everything from traditional dances, fine arts, music, to folk games that have been passed down from generation to generation. Indeed, in the midst of globalization and modernization, the preservation of Indonesia's traditional cultural heritage is becoming increasingly important. This is because cultural heritage not only reflects the identity of a nation, but is also a valuable source of inspiration, knowledge and wisdom for the future generations.

One important aspect of Indonesia's traditional cultural heritage is folk games. Folk games are an integral part of the life of the traditional Indonesian society. They are not only a means of recreation and entertainment, but also have high educational values. In the context of early childhood education, traditional Indonesian folk games can be an effective tool in developing various skills and abilities in children, especially the problem-solving abilities. By engaging children in folk games as a project-based learning model, they can learn in an interactive way with fun, while strengthening ties with their ancestral culture and traditions.

Indonesia has an extraordinary cultural wealth, including various folk games that have become an integral part of the nation's cultural identity. This cultural heritage reflects values, traditions and ways of life that have been passed down from generation to generation. Preserving and reintroducing these traditional folk games is not only about safeguarding cultural heritage, but also about enriching children's learning experiences with rich local values. In today's digital age and globalization, children are often more fixated on modern technologies and entertainment that tend to ignore or forget their traditional cultural heritage. This can lead to a loss of cultural identity and important traditional values. Therefore, there is an urgent need to integrate traditional cultural heritage in education to ensure its preservation and appreciation of local cultural values.

In this context, this paper aims to explore the practical implementation of this learning model. Its objectives are:

- To facilitate Indonesia's younger generation to understand, appreciate and inherit their traditional cultural heritage.
- To facilitate Indonesia's younger generation in developing the necessary skills to face the challenges of the future.

Theoretical Framework

Cultural Heritage of Traditional Games

Traditional games are an important part of the cultural heritage of many countries around the world. The study of the cultural heritage of traditional games covers various aspects, including their origins, cultural values, roles in society, and preservation efforts. Indeed, they are an integral part of Indonesia's cultural heritage that reflects local identity, traditional wisdom, and cultural diversity. Traditional games reflect the cultural diversity and traditional values of a community. They have an important role in strengthening local identity and promoting social interactions. Local wisdom is at the heart of these aspects.

Integration of Local Wisdom in Project Learning Model

Local wisdom refers to the knowledge, values, traditions and practices that develop within the communities where children live. The integration of local wisdom in early childhood education recognizes the importance of local culture in shaping children's identity and learning experiences. By incorporating local wisdom in the curricula and learning practices, children can relate their learning to their everyday experiences and realities. Vygotsky (1978) in his sociocultural theory emphasizes the importance of social and cultural interactions in learning. According to this theory, learning occurs through active participation in social and cultural activities, and the influence of local culture can affect the way children learn and think. This is in line with Bruner (1996) in his theory of contextual learning approach which emphasizes the importance of understanding social, cultural and environmental contexts in learning.

According to Burns & Lewis (2016) and Vygotsky (1978), by incorporating local wisdom in project-based learning, children can relate their learning to their daily experiences and realities. Based on these expert opinions, it can be concluded that the integration of local wisdom also allows children to understand and appreciate cultural diversity and increase their sense of belonging to their environment. Children can learn about traditions, stories, music and art that are unique to their own culture and the cultures of others.

In fact, project-based learning models have been proven effective in facilitating active, collaborative and contextualized learning. By integrating folk games in this learning model, we can provide meaningful learning experiences for children while developing their problem-solving skills. Through projects involving folk games, children not only learn about academic skills, but also gain a deeper understanding of their culture and traditions. Problem-solving ability is a very important skill in children's daily life and future. By utilizing folk games in a project learning model, we can create situations where children are exposed to challenges and problems that require creative and strategic solutions. This helps them develop problem-solving skills naturally while staying connected to their traditional culture and heritage.

Moreover, the integration of local wisdom in project-based learning for early childhood education allows children to learn while maintaining and appreciating their own culture. In project-based learning projects, themes and content can be chosen based on relevant aspects of local wisdom, such as folklore, local traditions or social challenges faced by their communities. Thus, the integration of local wisdom in project-based learning not only enriches children's learning experiences, but also strengthens children's connections to their culture and environment. It helps build bridges between children's learning experiences at schools and their lives outside of schools, creating meaningful and sustainable learning experiences.

Review of Literature

According to research, traditional games can contribute to social and educational development, including character building, skill development and collaborative learning (Ariadne et al., 2020; Dzamesi & van Heerden, 2020; Massimini & Fave, 2000; Purba et al., 2020; Rahayu et al., 2014; Rahayuningtyas et al., 2021). Some countries in the world have also raised the discussion about the urgency of incorporating traditional games in the modern world. For example, in Japan, the cultural heritage of Kendama and Hanetsuki traditional games reflect the traditional Japanese values such as perseverance, fine motor skills, and teamwork. Traditional games in India such as Kabaddi and Kho Kho are a reflection of the country's long

history and rich culture, which strengthen the spirit of unity and cooperation. Traditional African games such as Mancala and Morabaraba reflect the continent's cultural diversity and long history, and reinforce the values such as strategy, cooperation and healthy competition (Kaur, 2019; Lintangkawuryan et al., 2017; Mosimege, 2020; Sasanti & Bahasa dan Seni, 2022).

In some previous research, it can be seen that project-based learning has proven to be an effective method in developing problem-solving skills in early childhood. Children grow and learn with challenges, including the increasing risk of disasters. The utilization of local wisdom in project-based learning allows children to engage in projects that are relevant to their daily lives. In this process, children can face challenges and problems that arise in real-life contexts, which require critical thinking and problem solving. In addition, project-based learning that utilizes local wisdom can strengthen children's cultural identity, increase their sense of belonging to their living environment, and increase parental and community involvement in children's education (Ramdhani, 2019; Retnowati & Istiana, 2020; Yuliani et al., 2023). The integration of local wisdom in project-based learning is an interesting approach that has the potential to improve early childhood problem-solving skills while strengthening their connection to their culture and environment.

Project Learning Model

The project learning model has become a popular approach in education, but its journey started from a more specialized concept, such as the project approach. Project learning has evolved from early concepts such as the project approach proposed by Dewey (1938), a prominent philosopher and educator of the early 20th century, who was a major figure in the development of the project approach concept. Dewey emphasized the importance of learning through practical experience, real problem solving, and social interactions. This concept was first introduced in his famous book “Experience and Education”, where he promoted project-based learning as an effective learning method. Furthermore, Kilpatrick (1918), further developed the concept of project approach as a learning method that combines project activities with real-life experiences. Kilpatrick (1918) emphasized the importance of practical experience and contextual learning in education. This approach emphasizes learning through projects or project-based tasks that are relevant and oriented to students' needs and interests (Kilpatrick, 1918; Pecore, 2015). Research on project learning has been conducted to evaluate the effectiveness of project learning in promoting meaningful learning, learning motivation, and critical thinking skills.

Indeed, the results of this research provide a deeper understanding of the benefits and challenges of project learning. Along with the research conducted on project learning, the implementation of project learning in the curriculum has begun to be widely implemented in the formal education curriculum at various levels of education. Textbooks, guides and other supporting resources have been developed to assist teachers in planning and implementing effective project learning. The implementation of project learning is also developed into a concept of project learning adapted in early childhood education. The development of project approach becomes one of the most suitable learning methods for preschool and kindergarten children. Along with the development of theories of constructivism, active learning, and problem-based learning, the concept of project learning evolved into a more holistic and student-oriented learning method.

This approach emphasizes learning through practical experience, problem solving and collaborative work (Barron, 2003; Joseph Krajcik et al., 1998; Larmer et al., 2015; Lilian, 1992; Piaget, 1952). This is supported by Piaget's (1973) theory in constructivism theory which states that learning is an active process in which individuals construct their own knowledge through experience and reflection. In the context of project-based learning, children have the opportunity to construct their own knowledge through interaction with the environment and through collaboration with others.

Through the development from the initial concept by John Dewey and William H. Kilpatrick to become a widely applied learning approach through research and implementation

of project learning in the curriculum as well as the development of project learning concepts then adapted in early childhood education, project learning has become one of the most effective and relevant learning methods in modern education. Project-based learning has become one of the popular approaches in early childhood education. Project-based learning emphasizes active, collaborative, and contextual learning where children engage in real-world problem solving through interesting and relevant projects. In the context of early childhood education, project-based learning allows children to learn thoroughly through direct experience and interaction with their environment.

By engaging children in projects relevant to their lives, they have the opportunity to learn actively and apply problem-solving skills in real contexts. So it can be concluded that project-based learning falls into the category of active learning. Through the project-based learning approach, children not only develop academic skills such as reading, writing and arithmetic, but also social skills, critical thinking skills and problem-solving skills. They learn to work together in groups, put forward ideas, and find solutions to problems encountered in their projects.

Early Childhood Problem Solving Skills

The urgency of problem-solving skills in early childhood cannot be underestimated, given their important role in forming the basis of child development. Problem-solving skills are the foundation for effective learning. Children who are able to identify problems, analyze situations and find solutions tend to be more successful in facing future learning challenges. The problem-solving process involves the use of cognitive skills, such as observation, analysis and synthesis. Through problem-solving experiences, children develop critical, logical and creative thinking abilities, which are important foundations for further cognitive development. Problem-solving skills are not only related to cognitive aspects, but also have a significant impact on the development of children's social abilities. When children learn to work together to solve problems, they also develop communication, cooperation and leadership skills that are important in social interactions.

Problem-solving skills in early childhood in line with Piaget (1952) on cognitive development highlight the stages of children's learning, including problem-solving skills. According to Piaget, early childhood develops through sensorimotor and preoperational stages, where they begin to develop an understanding of the world through direct experience and interacting with the environment. Slightly different is Bandura (1977) who emphasizes the role of observation and imitation in children's learning. Young children can develop problem-solving skills by observing and imitating adults or their peers. In addition, this theory also highlights the importance of reinforcement and role models in shaping behavior. Vygotsky (1987) in constructivism theory emphasizes the role of social interaction in children's learning. His concept of zones of actual and potential development suggests that children can develop problem-solving skills through collaboration with adults or peers in their social environment (Vygotsky; Das, 2020; Piaget, 1952). In line with Vygotsky, information processing theory emphasizes that young children develop problem-solving skills through information processing, including pattern recognition, situation analysis and decision-making. They learn through experimentation and interaction with the environment, and use heuristic strategies to solve problems (Çarkıt & Özenç, 2021; Haris et al., 2021; Joseph & Strain, 2010; Kim, 2016; Molinini et al., 2021). Based on the description of these theories, experts highlight the importance of a developmentally appropriate approach in supporting the learning of problem-solving skills. Early childhood teachers or educators need to choose appropriate learning strategies to accommodate children's individual needs and interests in the context of a supportive learning environment.

Children who are skilled at problem solving tend to be more independent in dealing with everyday challenges. They learn to rely on their own abilities to find solutions to the problems they face, which is an important step in the development of independence and self-confidence. Problem-solving skills are one of the most highly valued abilities in everyday life, in the workplace, and in various social contexts. Children who are skilled at problem solving

have an advantage in facing future challenges and preparing themselves for success in life. Children who are skilled at problem solving tend to be better able to cope with challenges and stress. They learn to see problems as opportunities to learn and grow, not as insurmountable obstacles.

These studies provide a deeper understanding of the cultural values contained in traditional games from different countries, as well as efforts to preserve them as part of the global cultural heritage, while engaging them through early childhood education. Nevertheless, actual assessments of how they are achieved in practice need further exploration.

Research Methods

The study of the cultural heritage of traditional games from different countries provides a deeper understanding of cultural values, local traditions and the role of games in society. In this context, many research aim to support the efforts to preserve and promote traditional cultural heritage around the world and particularly Indonesia. In line with this, the study of the cultural heritage of Indonesian traditional games has become the focus of attention of researchers in recent years. This study aims to understand, preserve and develop traditional games as an invaluable part of the Indonesian culture.

This research conducted an in-depth exploration of the cultural values contained in various Indonesian traditional games. It analyzed aspects such as the history, symbolic meaning and the role of traditional games in the lives of Indonesian people. The theoretical study also covers efforts to preserve and develop traditional games as part of Indonesia's cultural heritage. The research considers various preservation strategies, including documentation, revitalization, and reintroduction of traditional games to the younger generation. It thus envisages to develop an understanding of the social and educational implications of traditional game practices.

The research was conducted in the context of early childhood education in a kindergarten in a coastal area rich in cultural heritage, especially traditional games. The main objective of the research was to explore how the integration of cultural heritage in a project learning model can influence the development of problem-solving skills in early childhood.

This research used a qualitative approach with a case study research design. The research participants were early childhood children aged 5-6 years old from selected kindergartens with a cultural base in Indonesia. They were involved in a series of learning projects that integrated local cultural heritage, such as traditional games in an effort to build their problem-solving skills. Data was collected through classroom observations, interviews with teachers, and participant reflections.

Findings and the Discussion

1. Stages of Traditional Game Integration in Project Learning Model

Observations

a. **Starting the Project**: The initial stage in project learning is to use triggers through the use of local languages, folk songs and folktales. Teachers and children work together to formulate clear and measurable goals for the project. This helps the child to understand the context and relevance of the project in their skill development. Next, children learn to plan their projects systematically. They identify the steps needed to achieve the project goal and create a detailed work plan. This planning process teaches children to be organized and think strategically.
b. **Investigation of the Project Topic**: The integration of traditional games will facilitate children during the project process. Help the child understand the task, provide direction, and answer questions. Give children the opportunity to start implementing traditional games according to the plan. Ensure that children have access to the necessary resources and support to implement meaningful traditional games, in this case it is important to collaborate with parents and school partners.
c. **Project Reflection**: The next stage is project implementation, where students implement the work plan they have created. They gather information, test ideas and overcome

challenges that arise during the process of implementing these traditional games. Through project implementation, students learn to work collaboratively, manage time, and adapt to change. Once the traditional game is completed, students evaluate the outcome of their traditional game process and reflect on the learning process they experienced. This allows them to identify their strengths and weaknesses, as well as extract valuable lessons from the meaning of the traditional game to apply in the future.

d. **Project culmination**: The teacher at this stage provides an opportunity for the children to present or display the results of understanding the essence of the traditional games they performed. This could be a verbal report, poster, presentation, or other final product that demonstrates their learning and achievements. Keeping project-related information, including notes, documentation, or project results, which can be used as a reference for future projects.

These stages of project learning provide a solid framework for the development of problem-solving skills in children. Through practical experience in planning, implementing and evaluating projects, students not only gain practical knowledge and skills, but also develop their ability to face challenges and find creative solutions. Therefore, the integration of traditional games in the project learning approach can be considered as an effective tool in tapping children's problem-solving potential.

These findings show that the integration of cultural heritage in project learning has a significant positive impact on the development of early childhood problem-solving skills. Children show improvement in their ability to identify problems, formulate problem-solving strategies, work in groups, and evaluate their resulting solutions. They also show increased interest in learning, as they feel personally engaged with subject matter related to their own culture.

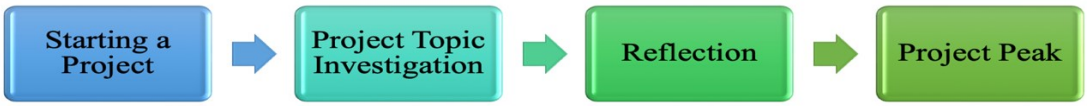

Fig. 1: Stages of Cultural Heritage-based Project Learning
Source: Author

It is noted that teaching young children through the project learning model is an important and relevant way to help children understand ways to deal with and respond to certain situations that occur in their lives. Although this approach requires sensitivity to children's age and understanding. Project learning has been recognized as an effective learning approach in developing problem-solving skills in children. However, in order to maximize the potential of project learning in terms of problem-solving development, it is important to deeply understand the stages involved in this process.

2. Philosophical Values in the Traditional Game of Gobak Sodor

The traditional game of Gobak Sodor is often referred to as Galah Asin, Galasin, and Gobag. It has originated in Central Java, Indonesia and has been an integral part of the local culture for centuries. The meaning of the word “gobak” is 'a traditional game that uses a rectangular field with patches, where each line is guarded by a guard, the party that wants to enter must cross the line and if they are touched by the guard, they must change into the guard.' While the word 'sodor' means 'to thrust'.

In this case, what must be thrust is our body and hands in order to touch the opponent who is trying to cross the line. the benefits obtained in this traditional game of Gobak Sodor are related to children's cognitive development. Without realizing it, this traditional game can train children's concentration, increase children's creativity in developing game strategies, and train children's problem solving skills. Several studies have investigated the history of the game, from written documentation to oral traditions, to understand how the game has evolved over time.

The game of Gobak Sodor not only provides entertainment, but also teaches a number of deep philosophical values. These values include cooperation, honesty, perseverance, self-control, critical thinking skills, problem solving and many more that can be applied in everyday life. Through this game, children learn about cooperation, strategy, decision-making and adaptation to changing situations. These are all skills that are essential for success in life (Ariadne et al., 2020; Pamungkas, 2021; Ramdhani, 2019; Retnowati & Istiana, 2020).

The game of Gobak Sodor is one of Indonesia's cultural heritage in the form of a traditional game that is popularly played among children. The game is usually played in school yards, neighborhoods, or other open fields. Gobak Sodor involves active movement and cooperation between players, so it is often considered an entertaining and educational activity. The main objective of the Gobak Sodor game is to capture or thwart the opponent's moves while protecting oneself from the opponent's attacks. The game is usually played in a fairly large area, such as a field or schoolyard. Players are divided into two separate teams, and the playing area is demarcated with lines or marks on the ground.

How to Play:

a. **Team Division**: Players are divided into two separate teams, usually with an equal number of players on each team.
b. **Starting Position**: Each team has their own “base” or “court” area. Players from each team stand inside their respective bases to start the game.
c. **Movement and Attack**: The first team sends their players into the opponent's territory with the aim of capturing or thwarting the movements of the opposing players. Players who are in the opponent's territory must avoid the opponent's attacks while trying to return to their own base.
d. **Affected Players**: If a player is successfully captured by an opposing player, they must either leave the game or wait outside the opposing base until a player from their team touches them to free them. If a player fails to return to their own base after being chased by an opponent, they are considered captured and must wait outside the opponent's base until a player from their team touches them to free them.
e. **Rotation and Continued Play**: The game continues with players taking turns on offense and defense. The team that manages to capture or thwart all of their opponent's players is considered the winner.

Fig 2: Traditional Game of Gobak Sodor
Source: Author

The traditional game of Gobak Sodor not only provides an opportunity for children to get active and exercise, but also teaches important values such as cooperation, communication, strategy, and problem-solving skills. In addition, the game also promotes togetherness, friendship and the joy of interacting with others. The flow of the traditional game of Gobak Sodor shows that this traditional game is not just entertainment, but also a source of deep philosophical values and has great potential to influence the formation of character and skills in its players. The philosophical values of the traditional game Gobak Sodor can have a strong correlation with the development of problem-solving skills in early childhood. Following is a correlation of the philosophical values of traditional games that can influence the development of these skills:

Table 1: Correlation between Gobak Sodor Traditional Game and Problem Solving Skills
Source: Author

No	Correlation between Gobak Sodor Traditional Game and Problem Solving Skills	
1	Problem Identification	In the game of Gobak Sodor, children must quickly identify threats or attacks from opponents and plan actions to avoid them. This helps them hone their ability to recognize problems and situations that require solutions.
2	Strategy Formulation	Children need to formulate strategies to deal with challenges that arise in the game, such as avoiding opposing players or catching opposing players quickly. This process of planning strategies trains their ability to design effective solutions to overcome the problem at hand.
3	Evaluate Solutions	During the game, children constantly evaluate whether the strategies they use are effective or not. They learn from their experiences and adjust their tactics according to the changing situation. This evaluation process helps them develop the ability to assess their chosen solution.
4	Cooperation and Communication	The game of Gobak Sodor encourages children to work together in teams and communicate with each other to achieve a common goal. They learn to share ideas, plan strategies together, and provide support to each other. This develops their social and cooperation skills, which are important in collaborative problem solving.
5	Creativity and Flexibility	In situations where the usual solutions don't work, children need to use their creativity to find new ways to tackle the problem. They learn to think outside the box and find innovative solutions. Moreover, they also need to be flexible in changing their plans according to the changing situation, which is an important skill in problem solving.

Thus, the Gobak Sodor game is not only a fun pastime for children, but also an effective means of building their problem-solving skills. Through experience in this game, children can develop the ability to identify problems, formulate strategies, evaluate solutions, work together in teams, and use their creativity to find effective solutions.

3. Philosophical Values in Dakon Traditional Game

The story of Dakon itself is not known for certain at the time of its introduction. According to Maharkesti (1999), in the Jarahnitra Research Report, there are three versions. Right during the reign of Ratu Kenchana Ungu, since the heyday of Majapahit, Dakong entered the palace, there is an anecdote that the Queen likes to play Dakon. The second version from the Dutch era, dakon is called mubedir (rifle / cannon) and was used during the resistance of Sultan Agung to balance the strength of his opponents. The Mataram soldiers, most of whom were farmers, were active in bedir and performed traditions such as dakon during their rest time. So the game entered the palace environment. The third version, the Dakon game was developed by Ki Buyut Manggal on the slopes of Mount Lau. Ki Buyut Mangal was a magical teacher who predicted human fate by playing dakon made of sawo wood. Therefore, he was given the name Gus Gunprong. RM Gundakusuma (KGPAA Mankunegara IV) was still his student at the time so he asked permission to take Gus Gampulong with him after school. Since then, the Dakong game has spread to Pura Mankunugaran and is used as a game for princesses waiting for their turn to dance. Philosophical values are reflected in the rules and mechanics of the Dakon game. Through this game, children learn about strategy, planning, decision-making and adaptation to change. These are all skills that are essential for success in life (Budiati, 2010; Kusnandar & Samson, 2022; Rachim & Fuad Nashori, 2007; Rahayu et al., 2014; Titi Mumfingati, 2011; Yuristiadhi, 2014).

Dakon game is a traditional game played by using a game board and seeds as the game tools. The game is popular in Indonesia and is often played by children and adults on various occasions, both as entertainment and as a means to practice strategic thinking skills. The main objective of the Dakon game is to collect as many grains as possible in the player's small holes, often referred to as “houses”. The player with the most number of grains in his house is the

winner. Dakon games are played with two components: the dakon board and the seeds. The dakon game uses a game board consisting of two large holes on either side of the board, and a number of small holes scattered between the two large holes. It is in these large holes that the grains will be placed. Grains, such as bean seeds, small stones, or pebbles, are used as "coins" in the Dakon game. The number of grains used depends on the size of the game board used.

How to Play:

a. **Setup**: The game board is placed between two players sitting opposite each other. Each player has his own house, which is two large holes in front of him.
b. **Distribution of Grains**: A certain number of grains are placed in each big hole on the game board. Usually, each big hole is filled with seven or eight grains.
c. **Turns to Play**: Players take turns picking up grains from one of the large holes on the game board and spreading them to the surrounding small holes in a clockwise manner. If the last grain falls on a player's home hole, that player gets an extra turn to play.
d. **Taking Grains from the Opponent's House**: If the last grain falls in one of the empty holes on the game board belonging to a player, and the hole is on the opponent's side, the player can take all the grains from that hole and the grains next to it, then put them in his own house.
e. **Game Continues**: The game continues until one of the players has no more grains in his/her house. At that time, the player who still has grains in his house collects the remaining grains on the game board, and the player with the most number of grains is the winner.

Fig. 3: Traditional Dakon Game
Source: Author

The Dakon game is not only fun to play, but also has important educational value. The game helps practice strategic thinking skills, step planning, decision making, and basic math skills, such as counting and estimation. In addition, the game also teaches values such as cooperation, patience, and sportsmanship in the face of challenges and failure. The philosophical values of the traditional game Dakon can have a strong correlation with the development of problem-solving skills in early childhood. The following is a correlation of traditional game philosophy values that can influence the development of these skills:

Table 2: Correlation of Dakon Traditional Game to Problem Solving Skills
Source: Author

No	Correlation of Dakon Traditional Game to Problem Solving Skills	
1	Problem Identification	In the Dakon game, children must identify the problems or challenges they face when choosing the next step. They need to pay attention to the distribution of grains on the game board and plan strategies to optimize the collection of grains in their homes. This skill helps children hone their ability to identify problems and describe situations that require solutions.
2	Formulating Strategies	Children must formulate effective strategies to achieve their goal in the Dakon game, which is to collect as many grains as possible in their house. They need to consider the steps their opponents might take and plan their next move carefully. This process of formulating strategies helps children in developing problem-solving and critical thinking skills.
3	Solution Evaluation	During the Dakon game, children constantly evaluate the effectiveness of their strategies based on the results of previous steps. They learn from their experiences and adjust their plans according to the changing situation on the game board. This evaluation process helps them in developing skills in assessing their chosen solutions.
4	Patience and Thoroughness	The Dakon game teaches children about the importance of patience and thoroughness in achieving their goals. They need to pay attention to every step they take and take into account the consequences of each action. This helps them in honing their skills in carefully planning steps and assessing the risks and benefits of each decision.
5	Decision Making	Children learn to make the right decisions based on analyzing the situations they face in the Dakon game. They need to evaluate the various options available and choose the most probable step to achieve their goal. This decision-making process helps them in developing skills in problem solving and taking effective actions.

Thus, the traditional game of Dakon not only provides an opportunity for children to have fun, but it is also an effective means of building problem-solving skills. Through experiences in this game, children can develop the ability to identify problems, formulate strategies, evaluate solutions, and make appropriate decisions.

4. Philosophical Values in Jamuran Traditional Game

Jamuran is a traditional children's game or dolanan bocah of Yogyakarta created by Sunan Giri who was one of the Wali Songo members. He created the game not just for fun. But there are also educational values taught such as togetherness, dexterity of movement in accordance with the rhythm, the ability to express, and the ability to understand orders. Through this game, children learn about cooperation, strategy, planning, decision-making, and adaptation to change. These are all important skills for success in life (Avanti et al., 2020; Cleveland & Hallab, 2013; Nur et al., 2017; Palinussa, 2013; Pamungkas, 2021).

Jamuran game is a traditional Indonesian game that is often played by children in various regions. The game involves strategy and ingenuity in catching or evading an opponent's attack. The main objective of the Jamuran game is to catch the opposing player or dodge his attack. The player who manages to catch all the opposing players is considered the winner. This game is usually played in a field or a fairly large area. No special equipment is required, just enough space to move and run.

How to play:

a. **Team Division**: Players are divided into two separate teams. Each team has a player designated as the “mushroom”, whose job is to catch the opposing player.
b. **Starting Position**: Teams stand in their respective starting areas. The mushroom of each team stands in the center, while the rest of the players stand around him.
c. **Game Start**: The game starts with one team moving forward to attack the opposing team, while the opposing team tries to dodge or avoid the attack.

d. **Capture or Evade**: If a player is successfully captured by a mushroom, the player joins the mushroom team and helps capture the remaining opposing players. However, if a player manages to dodge the mushroom attack, the game continues with the player remaining part of his team.
e. **Game Continues**: The game continues with attack and defense alternating between the two teams. The team that manages to capture all the opposing players is the winner.

The game starts with the surrounding players walking in circles, around the pancer while singing the lyrics of the Jamuran folk song:

> "Jamuran, jamuran, ya ge ge, jamur apa ya ge ge thok. Jamur payung, ngrembuyung kaya lembayung, sira badhe jamur apa?"

Then the pancer answers the type of mushroom as he pleases, for example 'mushroom kethek' which means the mushroom monkey is climbing, then the other players must immediately run to find a tree to climb. Then the pancer catches one of the players who did not climb or have not had time to climb, and the caught one changes into a pancer. In Javanese terms, the pancer is also called bocah sing dadi (finished child).

Fig. 4: Traditional Game of Jamuran
Source: Author

The Jamuran game is not only fun to play, but also has important educational values. The game teaches children about cooperation, strategy, agility and ingenuity in the face of challenges. In addition, the game also develops motor skills, social skills, and communication skills between people. The philosophical values of the traditional game Jamuran can have a strong correlation with the development of problem-solving skills in early childhood. The following is a correlation of traditional game philosophy values that can influence the development of these skills:

Table 3: Correlation between Jamuran Traditional Game and Problem Solving Skills
Source: Author

No	Correlation between Jamuran Traditional Game and Problem Solving Skills	
1	Problem Identification	In the Jamuran game, children must be able to identify the problem at hand, which is an attack from an opposing player or an attempt to evade the attack. They must pay attention to the opponent's movements and the surrounding situation to understand the threat. This skill helps children hone their ability to identify problems and describe situations that require solutions.
2	Formulating Strategies	Children need to formulate effective strategies to overcome the problems faced in the Jamuran game. They have to think of ways to catch the opposing player or avoid the opponent's attack by using creativity and

		ingenuity. This process of formulating strategies helps children in developing problem-solving and critical thinking skills.
3	Decision Making	During the game of Jamuran, children are constantly faced with situations where they have to make quick and precise decisions. They have to evaluate the various options available and choose the most feasible step to achieve their goal. This decision-making process helps them in developing skills in problem solving and taking effective action.
4	Creativity and Flexibility	In the game of Jamuran, there is no one sure way to catch the opposing player or avoid the opponent's attack. Children have to use their creativity to find innovative and effective solutions according to the situation they are in. In addition, they also have to be flexible in changing their strategies according to the changes in the game. This develops skills in creative thinking and flexibility in dealing with problems.
5	Cooperation and Communication	The game of Jamuran encourages children to work together in teams and communicate with each other to achieve a common goal. They learn to share ideas, plan strategies together, and provide support to each other. This develops their social and cooperation skills, which are important in collaborative problem solving.

Thus, the traditional game of Jamuran is an entertaining and educational game that helps in developing various important skills in children. It not only provides an opportunity to have fun, but also to learn and grow through interaction with peers. Traditional Jamuran games are also an effective means of building problem-solving skills in early childhood. Through experiences in this game, children can develop the ability to identify problems, formulate strategies, make decisions, use creativity, and work together in teams.

5. Philosophical Values in the Traditional Game of Cublak-cublak Suweng

Cublak Cublak Suweng is a traditional cublak-cublak suweng commonly played by village children in Java, especially in Central Java. Cublak Cublak Suweng is not just a game, but also contains a number of deep cultural values. Values such as cooperation, strategy, perseverance and fairness are reflected in the rules and mechanics of the game. Playing Cublak Cublak Suweng can help develop problem-solving skills in players. In this game, players are faced with various situations that require strategy, quick decisions and adaptation to change. Through this process, children learn to think critically, make effective decisions, and find solutions to overcome challenges (Avanti et al., 2020; Ningtyas, 2018; Nur et al., 2017).

The game Cublak Cublak Suweng is one of the traditional games that is quite popular in Indonesia, especially played by children. It is a game that involves physical movement and coordination between its players. The main objective of the Cublak Cublak Suweng game is to catch or evade the player who plays the role of “catch” or “enemy”. The player who manages to catch all the other players or who manages to avoid being caught by the enemy is the winner. This game is usually played in an open space, such as a yard or field. No special equipment is needed to play, just a large enough space to move around.

How to play:

a. **Role Assignment**: At the beginning of the game, one of the players is designated as the “catch” or “enemy”, while the other player plays the role of “liberator” or “escapee”.
b. **Game Start**: The player playing the role of “capture” starts the game by walking or running while singing a rhythmic song or chant such as “Cublak Cublak Suweng”.
c. **Attack and Defense**: The “catch” player tries to catch or touch the other player, while the other player tries to avoid the touch by running and jumping.
d. **Player Release**: If a player is successfully caught by the player playing the role of “catch”, that player becomes the next “catch”. However, if the player manages to avoid the touch, they remain the “liberator” and the game continues.

e. **Game Continues**: The game continues with attacks and defenses alternating between the player in the role of "catch" and the player in the role of "liberator". The game ends when all players are captured or when the allotted time runs out.

The cublak-cublak suweng game begins with hompimpa to determine who loses first. After that, the loser will play the role of Pak Empong, lying face down in the middle and the other children will sit around Pak Empong. Then those who circle Pak Empong open their palms facing upwards and place them on Pak Empong's back. Then one of the children holds the seeds/gravel and moves it from one palm to the other with the accompaniment of the song

Cublak-cublak Suweng.
Cublak-cublak suweng
Suwengé ting gelèntèr
Mambu ketundhung gudèl
Pak Empong léra-léré
Sapa ngguyu ndhelikaké
Sir, sir pong dhelé kopong
Sir, sir pong dhelé kopong.

The lyrics "sapa ngguyu ndhelikaké" are a sign that the seeds/pebbles must be immediately hidden by the child who receives them in the hand. At the end of the song, all the children hold their hands together, pretending to hide the pebbles, while moving their hands. Mr. Empong gets up and guesses in whose hand the seeds/pebbles are hidden. If the guess is correct, the child holding the seeds/pebbles turns to be Mr. Empong. If wrong, Mr. Empong returns to his original position and the game is repeated again.

Fig. 5: Traditional Game of Cublak-cublak Suweng
Source: Author

The game of Cublak Cublak Suweng is not only fun to play, but also has important educational values. The game teaches children about cooperation, strategy, agility and ingenuity in the face of challenges. In addition, the game also develops motor skills, social skills, and communication skills between people. The philosophical values of the game Cublak-cublak Suweng Gobak Sodor can have a strong correlation with the development of problem-solving skills in early childhood. The following is a correlation of the philosophical values of traditional games that can influence the development of these skills:

Table 4 : Correlation of Cublak-cublak Suweng Traditional Game to Problem Solving Skills
Source: Author

No	Correlation between Cublak-cublak Suweng Traditional Game and Problem Solving Skills	
1	Problem Identification	In the game Cublak Cublak Suweng, children must be able to identify the problem at hand, which is the attempt of the player who plays the role of "catch" to catch them. They must pay attention to the player's movements and the situation around them to understand the threat. This skill helps children hone their ability to identify problems and describe situations that require solutions.

2	Formulating Strategies	Children need to formulate effective strategies to overcome the problems encountered in the Cublak Cublak Suweng game. They have to think of ways to avoid the players who play the role of "catch" by using creativity and ingenuity. This process of formulating strategies helps children develop problem-solving and critical thinking skills.
3	Decision Making	During the game, children are faced with situations where they have to make quick and precise decisions. They have to evaluate the various options available and choose the most feasible move to avoid the touch of the player who plays the role of "catch". This decision-making process helps them in developing skills in problem-solving and taking effective action.
4	Creativity and Flexibility	In the game of Cublak Cublak Suweng, there is no one sure way to avoid the player playing the role of "catch". Children must use their creativity to come up with innovative and effective solutions according to the situation they are in. In addition, they also have to be flexible in changing their strategies according to the changes in the game. This develops skills in creative thinking and flexibility in dealing with problems.
5	Cooperation and Communication	The game of Cublak Cublak Suweng encourages children to work together in teams and communicate with each other to achieve a common goal. They learn to share ideas, plan strategies together, and provide support for each other. This develops their social and cooperation skills, which are important in collaborative problem solving.

Thus, the traditional game of Cublak Cublak Suweng is an effective means of building problem-solving skills in early childhood. Through experiences in this game, children can develop abilities in identifying problems, formulating strategies, making decisions, using creativity, and working together in teams.

Conclusions

Overall, the findings of this study demonstrate the importance of integrating cultural heritage in project learning as a way to build problem-solving skills in early childhood. The findings provide a strong basis for the development of more student-centered and culturally-based learning practices in the context of early childhood education. These findings have several important implications in the context of early childhood education.

- First, the integration of cultural heritage in project learning can be an effective approach to improving early childhood problem-solving skills.
- Secondly, this approach can help promote appreciation for cultural diversity and strengthen students' cultural identity.
- Third, teachers and educators can use these findings as a guide to design more meaningful and relevant learning experiences for young children.

This paper thus concludes that the integration of the philosophical values of traditional games in the project learning models can be an effective strategy to improve problem solving skills in early childhood education, not only in Indonesia but everywhere else.

References

Ariadne, E., Pratamawaty, B., & Limilia, P. (2020). Pelestarian nilai budaya lokal melalui seni kriya, sebagai inovasi pelaku ekonomi kreatif di masa pandemi covid-19 preservation of local cultural values through the art of kriya as an innovation of creative economics in the pandemic time of covid-19. *Jurnal Ilmiah Pengabdian Kepada Masyarakat*, 4(2), pp. 23-35. http://logista.fateta.unand.ac.id

Avanti, Pramudyan, & Pramudyani, R. (2020). Tingkat Pengetahuan Guru PAUD Tentang Permainan Tradisional Jamuran Bagi Anak Usia Dini. *Jurnal Pelita PAUD*, 4(2), pp. 168–177. https://doi.org/10.33222/pelitapaud.v4i1.972

Balwinder Kaur. (2019). A Study of Physique, Body composition and Dietary Intake of Kabaddi Players of Punjab. *International Journal Creative Research Thoughts*, 7(2). pp.132-154. www.ijcrt.org

Barron, B. (2003). When smart groups fail. *Journal of the Learning Sciences*, 12(3), pp. 307–359. https://doi.org/10.1207/S15327809JLS1203_1

Budiati, A. C. (2010) Aktualisasi Diri Perempuan Dalam Sistem Budaya Jawa (Persepsi Perempuan terhadap Nilai-nilai Budaya Jawa dalam Mengaktualisasikan Diri). *Jurnal Pamator*, *3*(1), pp. 145-156

Burns, M. V., & Lewis, A. L. (2016) How the Project Approach Challenges Young Children. *Gifted Child Today*, 39(3), pp. 140–144. https://doi.org/10.1177/1076217516644638

Çarkıt, C. & Özenç, M. (2021) Assessment of 4th Grade Students' Problem-Solving Skills in Terms of Various Variables. *Educational Policy Analysis and Strategic Research*, 16(2), pp. 313–329. https://doi.org/10.29329/epasr.2020.345.14

Cleveland, L. & Hallab. (2013) Globalization, culture, religion, and Values Comparing Cosumption Patterns of Lebanese Muslims and Christians. *Journal of Busineasse Reserach*, Vol. 8(4) pp. 958–967.

Das, K. (2020) Realistic Mathematics & Vygotsky's Theories in Mathematics Education. *Shanlax International Journal of Education*, 9(1), pp. 104–108. https://doi.org/10.34293/education.v9i1.3346

Dzamesi, F. E. & van Heerden, J. (2020). A professional development programme for implementing indigenous play-based pedagogy in kindergarten schools in ghana. *South African Journal of Education*, 40(3), 1–11. https://doi.org/10.15700/saje.v40n3a1793

Haris, I., Arsyad, A. & Sarlin, M. (2021) *Collaborative Problem-Solving Instrument for Assessing Student's Problem-Solving Ability: Initial Development and Validation*.

Joseph, G. E. & Strain, P. S. (2010). Teaching young children interpersonal problem-solving skills. *Young Exceptional Children*, 13(3), pp. 28–40. https://doi.org/10.1177/1096250610365144

Joseph Krajcik, Phyllis C. Blumenfeld, Ronald W. Marx, Jennifer Fredricks, Elliot Soloway, & Kristin M. Bass. (1998) *Learning Through Problem Solving* (Cindy E. Hmelo, Ed.; 1st ed., Vol. 1(2). Pp. 35-44 Psychology Press. https://doi.org/10.4324/9781315799285

Kilpatrick, W. H. (1918) *The Project Method (1918)*. www.journals.uchicago.edu

Kim, Y. H. (2016). Early childhood educators' meta-cognitive knowledge of problem-solving strategies and quality of childcare curriculum implementation. *Educational Psychology*, 36(4), pp. 658–674. https://doi.org/10.1080/01443410.2014.934661

Kusnandar, & Samson. (2022). Penerapan Dokumentasi Proses Dalam Perekaman Warisan Budaya Takbenda. *Kabuyutan: Jurnal Kajian Ilmu Sosial Dan Humaniora Berbasis Kearifan Lokal*, 1(1), pp. 24–28.

Larmer, J., John, M., Boss, S., Mergendoller, L. & Boss, (2015). *Project based Learning a Proven Approach to Rigorous Classroom Instruction Setting the Standard for Project Based Learning*. www.bie.org

Lilian, G. K. (1992) *The Project Approach* (J. Johnson, Ed.; Eds). Approaches to Early Childhood Education.

Lintangkawuryan, Y., Tinggi, S., Trisakti, P. & Adiati, M. P. (2017) Recognition of Traditional Games in Indonesia as Cultural Preservation Efforts Through Special Event. *Advances in Economics, Business and Management Research*, 28 (2) pp. 35-56

Massimini, F. & Fave, A. D. (2000) Individual Development in a Bio-Cultural Perspective. *Universitgz Degli Studi Di Milano*. https://doi.org/10.1037/0003-066X.55.l.24

Molinini, R. M., Koziol, N. A., Tripathi, T., Harbourne, R. T., McCoy, S. W., Lobo, M. A., Bovaird, J. & Dusing, S. C. (2021) Measuring Early Problem-Solving in Young Children with Motor Delays: A Validation Study. *Physical and Occupational Therapy in Pediatrics*, 41(4), 390–409. https://doi.org/10.1080/01942638.2020.1865501

Mosimege, M. (2020) The use of indigenous games in the teaching and learning of Mathematics. *Revemop Universidade Federal de Ouro Preto*, *2*, e202009. https://doi.org/10.33532/revemop.e202009

Ningtyas, D. P. (2018) Pengembangan Permainan Sirkuit Mitigasi Bencana Gempa Bumi Untuk Meningkatkan Self Awareness Anak Usia Dini. In *Jurnal Caksana-Pendidikan Anak Usia Dini,* Vol. 1(2), pp. 44-57

Nur, L., Halimah, M., & Nurzaman, I. (2017) *Permainan Tradisional Kaulinan Barudak Untuk Mengembangkan Sikap Empati Dan Pola Gerak Dasar Anak Usia Dini*, Vol. 1(2).

Palinussa, A. L. (2013) *Students' Critical Mathematical Thinking Skills and Character: Experiments for Junior High School Students through Realistic Mathematics Education Culture-Based* Vol. 4(1), pp. 34-56.

Pamungkas, J. (2021) The Role of Parents in Learning Local Culture of Little Gamelan in Early Childhood. *Eduvest-Journal of Universal Studies*, 1(12), pp. 1466–1472. http://eduvest.greenvest.co.id

Pecore, J. L. (2015) *From Kilpatrick's project method to project-based learning. International Handbook Progressive Education*.

Piaget, J. (1952) *The Origins Of Intelegence In Children*. International Universities Press.

Purba, E. J., Akbar., Putra, K. & Ardianto, B. (2020) Perlindungan Hukum Warisan Budaya Tak Beda Berdasarkan Convention for The Safeguarding Of The Intangible Cultural Heritage2003 dan Penerapannya di Indonesia. *Journal of International Law*, 1(1), 90–91. https://doi.org/10.36565/up.v1i1.8431

Rachim, R. L. & Fuad Nashori, H. (2007) Nilai Budaya Jawa Dan Perilaku Nakal Remaja Jawa. *Indigeous: Jurnal Ilmiah Berkala Psikologi*, *9*(1). www.pemda.diy.org.2006

Rahayu, N. T., Dan, S., Efendi, A., Veteran, U., Nusantara, B., Letjend, J. & Humardani, S. (2014) Model Pewarisan Nilai-Nilai Budaya Jawa Melalui Pemanfaatan Upacara Ritual. *Jurnal Ilmu Komunikasi*, 12(1), pp. 34-56

Rahayuningtyas, D. R., Rizqi, P. A., Firnanda, R., Putri, M., Sawwama, A., Lutfhi, E. & Ahsani, F. (2021) Peran Guru Dalam Mempertahankan Cultural Heritage Indonesia. *PENSA : Jurnal Pendidikan Dan Ilmu Sosial*, 3(1), pp. 27–37. https://ejournal.stitpn.ac.id/index.php/pensa

Ramdhani, S. (2019) integrative thematic learning model based on local wisdom. *Early Childhood Education Journal* .

Retnowati, R. & Istiana, R. (2020) Developing PRroject-Based Learning Related To Local Wisdom in Improving Students' Problem-Solving Skills. In *Journal of Education, Teaching, and Learning* Vol. 5(2), pp. 104-120

Samudra Sasanti, N. & Bahasa dan Seni, F. (2022) Traditional Japanese and Indonesian Children's Games from the Point of View of Japanese Language Education Study Program Students (An Analysis of Similarities and Differences) Article Info. *Chi'e: Jurnal Pendidikan Bahasa Jepang*, 10(2), pp. 93-101 http://journal.unnes.ac.id/sju/index.php/chie

Titi Mumfingati. (2011) Pendidikan Budi Pekerti Dalam Budaya Jawa Kajian Terhadap Serat Nitipraja. *Jantra: Jurnal Sejarah Dan Budaya*, VI (12), pp. 198–207.

Vygotsky, L. S. (1978) *Mind in Society* (M. Cole, Ed. 1st ed., Vol. 2). Library of Congress Cataloging in Publication Data.

Yuliani, R., Abd Jabar, C. S. & Maryatun, I. B. (2023) The Influence of the Inquiry Project-Based Learning Model on Critical Thinking Skills in Early Childhood: A Quantitative Experimental Study. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, 8(3), pp. 193–202. https://doi.org/10.14421/jga.2023.83-08

Yuristiadhi, G. (2014) Kretek sebagai Warisan Budaya Tak Benda: Sebuah Tinjauan Sosiohistoris. *Jurnal Transformasi Sosial*, 34, pp. 11–38. http://www.insist.or.id/