

Conference Paper

Transforming the Traditional Engklek Game Using ATUMICS Method

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Abstract

Engklek is a game that used to be played by people in Indonesia, especially children. This game improves balance, trains leg muscle endurance, and encourages direct social interaction between players. Unfortunately, this game is rarely played today because of the lack of availability of space and competition with modern games. The ATUMICS method helps to transform traditions into a current context by maintaining the crucial elements and replacing the elements that inhibit the aspects that are more acceptable to today's society. In terms of playing techniques, game utilities, the icon of the board games, and game concepts are maintained. From here, the concept of the Engklek game is formed, which can be played anywhere including indoors. The concept of the game has been developed to ensure that (1) the set of the game is easy to carry anywhere and played everywhere, (2) children learn to organize and practice their hand skills through the process of compiling puzzles, releasing, and arranging board games, (3) new pieces tend to be safer when accidentally stepped on, (4) board games, pieces, and bags are made from environmentally friendly materials and support sustainable design, (5) there are new icons from pieces that support icons from other Engklek games, (6) the shape of the game board speeds up the game preparation process, (7) the shape of new pieces is more exciting and easy to remember for children. The concepts found here need to be developed into prototypes and tested on children so that the mapping of product strengths and weaknesses can be mapped better.

Keywords: atumics method, transforming tradition, traditional game, Engklek

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1. Introduction

Engklek is one of the games that were often played by Indonesian people, especially among children. This game has different terms in various regions in Indonesia, such as *Sunda Manda*, *Jlong Jling*, *Plate*, *Dampu*, *Teklek*, *Dende*, *Ingkling*, and so on. The game also has different terms from various countries such as *Seksek* (Turkey), *Klasy* (Poland), *školicica* (Bosnia, Croatia, Serbia), *Avioncito* (Mexico), *Pee-ko* (Philippines), *Thikrya* (India), *Escargot* (France)), etc. According to Butsi (2015), Indonesian Engklek has the original name *Zondag Mandag* from the Dutch language, so it is believed that this game was

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brought by the Dutch when they colonized Indonesia. From this, it can be seen that this game was played by the people of Indonesia almost a century ago.

Traditional games contain values that are good for children's development. These values include social values and physical health. Based on a study by Nourovita (2013), traditional Javanese games have proven to be effective in increasing children's social adjustment. This is because they are allowed to play in groups and interact with peers and teachers so that they are faster and better at working together.

This benefit is also contained in the Engklek game. The results of a trial conducted by Munawaroh (2017) show that aspects of child development, which include moral religion, language, social-emotional, and physical motor skills become better after playing Engklek. By standing on one foot while jumping, children will learn about balance and calmness. Also, the leg muscles will be trained to become stronger. When throwing pieces, they will also be trained in intuition and memory because pieces will not enter the intended *sawah* (box) if they are unable to remember and adjust it when throwing pieces. On the other hand, this game can only be played in groups, so it is good to practice the process of socializing. Therefore Engklek is a good type of game for children's physical and spiritual development.

However, as stated by Piliang (2005) that a new reality has replaced every past reality. Engklek games are rarely played by children today because the ideal area is hard to find. The Engklek game requires a playing area of at least 9 m². The type of soil must be flat land that can be scribbled using red brick, broken roof tiles, chalk, or charcoal. At present, it is challenging to find this kind of area. Outside the house, many open areas have functioned as public facilities, especially for road vehicles. Meanwhile, if played in the house is also not suitable because it will pollute the home.

On the other hand, the demands of modern society for something practical like smartphones, are also getting higher. The data seen on the Statista website (Holst, 2019) shows that smartphone users throughout the world are always increasing every year, even in 2021, smartphone users are predicted to reach 3.8 billion. This trend also often occurs in Indonesia. In smartphones, there are many games on one device that are small, lightweight, and easy to carry and play anywhere; this makes children happier to play smartphone than playing traditional games like Engklek. If the Engklek game does not immediately adapt to the needs of the times, then this game will soon become extinct and forgotten by the public.

So that the community does not forget the Engklek game, then this game needs to be transformed following the needs of modern society. The ATUMICS method is one of the traditional methods of transformation that was recently developed. The basic

principle of this method is the arrangement, combination, integration, or mixture of the essential elements of tradition with modern elements (Nugraha, 2012). Adhi Nugraha has successfully used this method to transform bamboo woven packaging into plastic replacement packaging for souvenirs from strawberries from Lembang. This method is applied to transform the Engklek game.

2. Engklek Traditional Game

This game is believed to have existed for centuries before literary references were promoted. But this theory is difficult to prove. The first English records of the use of this type of game have existed since the end of the 17th century called 'scotch-hop' or 'scotch-hopper' (Shadwell through Oxford, 2002). It is said that this game was brought by the Dutch when they colonized Indonesia and then began to be adapted and developed by indigenous people. Until now, Engklek spread throughout Indonesia have different characteristics, especially in terms of names, models, and some rules of the game.

The name Engklek tends to be famous among the people of East Java. The most common game models are airplane models and mountain models. In the mountain model, the play area is drawn to resemble a cube net by adding two-lined boxes and a half-circle on top of it. This model requires more stamina because the game tends to last harder and longer. Meanwhile, the aircraft model has the characteristics of the playing field drawn just like cube nets and more straightforward game rules. Therefore the game takes place faster and tends to be more accessible, especially for players who are new to him. Based on this reason, Engklek games with aircraft models are more suitable to be transformed first.

This game consists of 2 to 5 participants. To play it, participants must first collect game tools from nature such as red brick fragments (can also be tile fragments or chalk) to draw a playing area, tile, or asbestos shards for pieces, then look for a flat area with flat ground. To start the game, participants do *sut* (rock–paper–scissors or another version with fingers) if the game consists of 2 people. If there are more than two people, the participant conducts a *hompimpa* or trial of pieces throwing to determine the order in which the participants play the game. This game is done by jumping over each plot with one foot while carrying pieces on the back of the hand. After that, participants threw pieces toward the play area while turning around and squatting. If pieces enter the plot area, it will belong to the player and is then referred to as the paddy field, meaning the owner of the paddy field can step on it with 2 feet while other participants cannot step on it (Apriani, 2013). The game ends when all the boxes are in the player's possession.

3. ATUMICS Method

The transformation of tradition used here has to do with adapting tradition to revive among modern society. ATUMICS method is a traditional design transformation (revitalization) method developed by Adhi Nugraha. According to Nugraha (2012), the way to maintain a tradition is to continue to transform it and give it new possibilities to work in a contemporary context. This is because tradition cannot be easily existed and accepted by modern society. If a tradition suddenly appears in its original form without any adjustments, then this tradition will only be used by certain circles. Even if the tradition is to survive in the contemporary world, then the tradition must continue to be able to adjust to the development and needs of the times.

In the context of the transformation of tradition explained by Nugraha (2012), several motives are underlying the need for tradition to be transformed. These motives include: (1) the need for a tradition to not become extinct (survival), (2) the need to improve social values in society through traditions (social), (3) the need to restore elements of environmentally friendly traditions (ecological), (4) the need to add economic value with the help of tradition (economic), (5) the need to restore the old culture that was eroded by modernization (cultural), (6) or just for works of art (self-expression). These motifs are then chosen accordingly as a basis for the formation of elements of tradition that need or need not be transformed. These elements are called ATUMICS.

ATUMICS stands for Artefact - Technique - Utility - Material - Icon - Concept - Shape. The essence of this method is the arrangement, combination, integration, or mixture of elements of tradition with modernity (Suriastuti et al., 2014). Artifacts are objects of tradition that will be transformed. The technique is everything related to technical matters such as production techniques, how to make, how to use, how to play, processes, tools, and various facilities needed. The utility is a match between community needs and product functions (Keinonen, 1989). Material is anything physical that can be made and used for a specific purpose (Fulton, 1992). Icons are various symbolic forms of images that emerge from nature, geography, decoration, decoration, color, mythology, humans, and artifacts (Nugraha, 2012). The concept is a hidden element or deep message that is in an object or form. The shape is any form, performance, and the visual or physical equipment of an object.

4. Transformation Process

Engklek game model that will be developed here is the airplane model. This is because this model is the most basic, so it is easy to explore and develop. Also, this model also has a way of playing which tends to be the same from various regions so there is no need to educate the public about how to play which needs to be universalized.

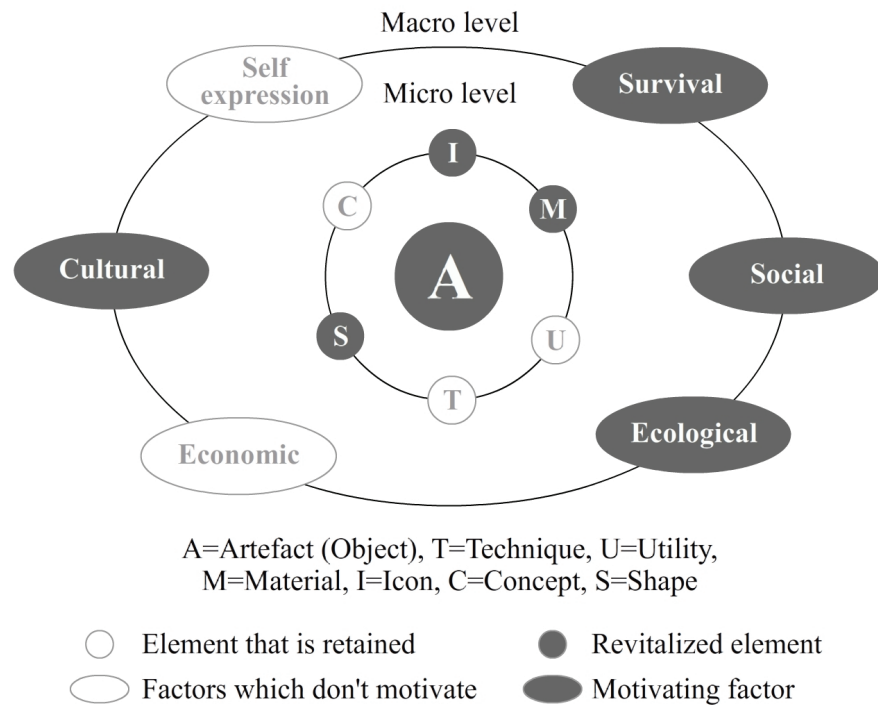


Figure 1: Motives and transformation elements used.

The transformation process starts by determining the motives that underlie the need for the Engklek game to be brought back to the modern world. The motives are survival, social, cultural, and ecological. All of these motifs are the basis for choosing elements of tradition that need to be maintained and elements that need to be adjusted again.

4.1. Survival

The survival motive is related to the need for this endangered game to survive and be played by modern society.

4.2. Social

As explained earlier, one of the advantages of Engklek games is that it helps the process of socializing by interacting directly between players. Amid the rise of digital games

that tend to make children rarely socialize and interact with friends and the surrounding environment. Therefore Engklek games need to be transformed into modern games so that the social interaction of children today can be improved.

4.3. Cultural

Although not an original game from Indonesia, Engklek games have long been played and developed in Indonesia. This game already has unique nicknames from each region in Indonesia. Therefore this game has long been a part of the culture of Indonesian society, so it is quite unfortunate if this game has never been played back by Indonesian people.

4.4. Ecological

The Engklek game used to be played with equipment that was directly provided by nature, such as limestone, brick, and flat stone. As development progressed, Engklek game equipment turned into building residues such as asbestos shards, roof tiles, and brick fragments. Even so, various types of equipment needed are still classified as environmentally friendly. Meanwhile, if observed, games in modern times tend to be less environmentally friendly. For example, on video game consoles that always contain plastic, rubber, glass, and other materials whose waste will pollute the environment and are difficult to recycle. Engklek games need to be adapted to modern game forms with environmentally friendly materials so that the harmful waste generated by the contemporary game field can be reduced.

Based on these motives, elements are found that need to be transformed and elements that are maintained. The elements that need to be transformed are Material, Icon, and Shape, while the elements that are maintained are Technique, Utility, and Concept.

The technique of the game is by standing on one foot while jumping needs to be maintained so that the sports elements in this game do not disappear. Besides that, the technique of throwing pieces which are placed on the back of the hand while back to the game board is also not eliminated because it is unique and can be a supporter of identity as a public attraction. Meanwhile, the utility of this game is also not removed so that the usefulness of the game does not change from the original, ie playing, sports, and socializing. The concept of the game also does not need to be replaced because this game already has complete gamification elements, dandy, and exciting concepts

of play, so the way to play, the rules, and the philosophy of the game need to be maintained.

Game materials such as chalk, tile shards, asbestos shards, red brick shards, etc. need to be changed because most people think that these materials are less hygienic and less suitable to be played in the house. Yet as explained earlier, the playing area outside the home is increasingly reduced availability. Meanwhile, today's society also tends to like something clean, can be flexibly played anywhere and anytime, and is safe and comfortable to be played by children. The material for the board is replaced by 50x50 cm pieces of plywood or plywood shaped like a puzzle. Also, for game pieces, it is made of wood, which is processed in such a way. Besides, bags are also designed to collect boards and pieces for easy carrying. This bag is made of woven bamboo.

The changed icon is the icon in pieces. In the old concept, pieces game uses asbestos or tile shards with shapes that tend to be abstract. In the new concept, game pieces are made of flat wood that resembles the shape of animals. From here, the previously created abstract icon becomes animal-shaped.

The changed shape is the shape of the pieces and the board game. As explained earlier, the initial irregular shape of the pieces was transformed into a shape that resembled animals in the fields such as mice, snakes, birds, grasshoppers, buffaloes, and dragonflies. Besides, the appearance also changed because the material also changed. The shape of the board also changes. Initially, the board game only in the form of a picture attached to the surface of the ground or the road. In the new form, the game board has a puzzle form that can be arranged or stored in a box so that it is easy to carry anywhere.

5. Discussion

The new material, which is a piece of plywood that is formed into a kind of puzzle, makes Engklek board games easily arranged or removed and arranged. This will make the Engklek board easy to carry anywhere. Also, the material is processed to be cleaner and easier to clean so that the game can be played both outside and inside the house. Then from the process of arranging, releasing, and arranging board games when finished playing, the children will learn to organize and practice hand skills.

Changes in material characteristics in pieces also have added value. At first, pieces was made of broken tiles, asbestos fragments, or rocks whose shapes tended to be irregular and rough. This tends to endanger the feet when accidentally stepped on

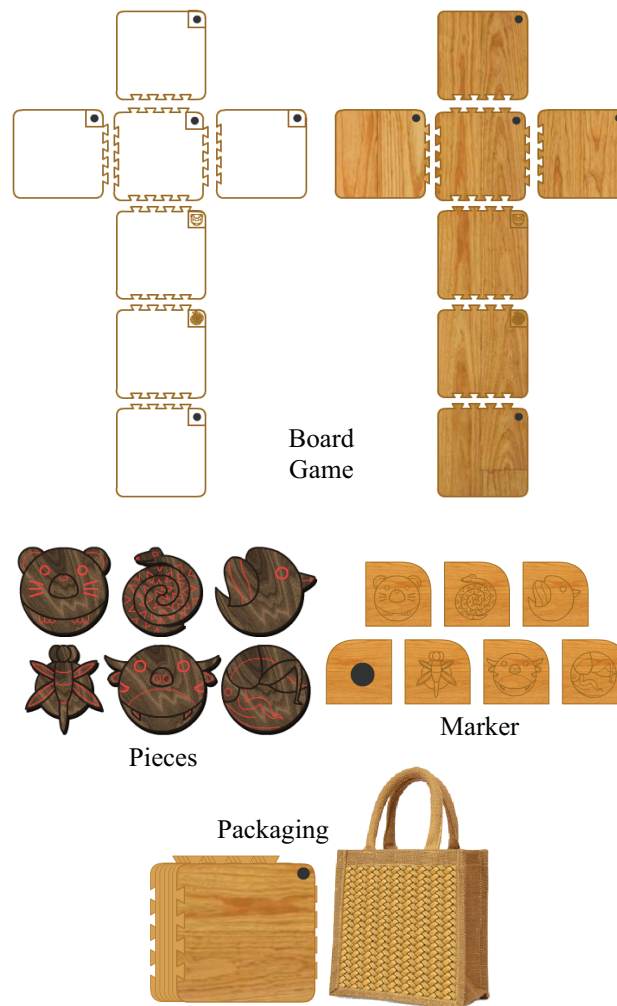


Figure 2: The new concept of Engklek game that has been developed.

when playing games. Pieces made of finely ground flat wood material is safer for the feet when accidentally stepped on.

The wood material used refers to one of the traditional transformation motifs, ecological. The wood itself is readily biodegradable and does not pollute the environment, so it tends to be environmentally friendly. This makes the new cricket game mass-produced and allows it to be in the sustainable design category. Therefore, wood is very suitable as the primary material in the development of Engklek to a more modern form.

The icon on the game board cannot be changed because it is already very attached to the identity of the Engklek game itself. As in the airplane model, if the cube nets icon shaped like a plane is changed, then we will have difficulty recognizing this game even to change how to play it. Therefore, only the icon of the game Pieces has changed. The icon, which was initially abstract, then turned into an animal icon makes it easy to

remember. So in the new game concept, the icon in the Engklek game is not only the game board but also the game.

Old board shapes tend to rely heavily on memory and hand skills in drawing. This makes the shape of the board tend to change even to change the playing experience. The new board shape has a fixed shape and is easily arranged systematically. This will help children who are not easy to remember the correct form of this board game. Apart from that, the work to prepare the game will be faster by compiling compared to the drawing.

The old form of pieces is abstract, so it lacks traction and tends to be quickly forgotten by children. The new shape of pieces resembles animals. This form will make children more immersed in the game and more enthusiastic when playing. They can choose hero animals even they can also develop the game, for example, by pretending to be their hero.

6. Conclusion

The process of transforming traditional Engklek games using the ATUMICS method produces a new Engklek game concept. This new concept has the following advantages:

1. The set of Engklek games is easy to carry and play anywhere.
2. Children learn to organize and practice their hand skills through the process of arranging, releasing, and arranging board games.
3. The new Pieces tend to be safer when accidentally stepped on by the foot.
4. The game board, pieces, and bag are made from environmentally friendly materials and support sustainable design.
5. There is a new icon from pieces that supports icons from Engklek games apart from the game board.
6. The shape and shape of the game board make the game board more universal and speed up the game preparation process.
7. The new form of pieces is more immersive and easily remembered by children and has the potential to be developed so that the game becomes more exciting and enjoyable.

The discussion presented here is only from the concepts that have been developed. So that the advantages and disadvantages of this new Engklek game can be mapped

better, it is necessary to make a prototype and try it out on children. Also, aspects of material selection need to be re-tested related to the strength and level of safety for children. This is to reduce the adverse effects of efforts to develop Engklek games for the needs of modern society.

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