The role of space in sustaining children’s traditional games

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ABSTRACT

Playing is one of the activities naturally possessed by children from childhood and elements of learning have been observed to be in playing and vice versa. For example, traditional games have philosophical values with moral messages but they have been replaced by games prioritizing technological advancements over time. This has reduced the familiarity of many children with traditional games in recent times. Meanwhile, the reduction in the quantity and quality of play and public open space for children is often considered one of the factors causing the extinction of traditional games. The availability of an adequate environment including play areas or playground aids children's development. This paper discusses the traditional games known by the present generation and the role of space in sustaining them with the focus on West Java. The study was conducted through observation and distribution of questionnaires to children aged 6-12 years living in Bandung city and some urban settlements. The results provided an overview of the types of traditional games known by the children, the space they favored, and its role in their willingness to play.

Keywords:
- Space character
- Space of children’s
- Space requirements
- The role of space
- Traditional games

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Introduction

Childhood is an important period in a child's development due to the participation in several play activities (Piaget and Cook 1952; Piaget 2013a; 2013b). This means it is not possible to separate children and play (Burke 2005). It has also been discovered there are elements of learning in these activities and play is also sometimes spontaneously inserted in the learning process with a variety of creativity to ease boredom (Gallahue and Cleland-Donnelly 2007; Lafferty 2005). The activities help children achieve gradual and complete development physically, intellectually, socially, morally, and emotionally (Goodway, Ozmun, and Gallahue 2019; Barnett 1990; Hughes 2009).

The traditional game is owned by almost all people in different parts of the world with different names often given to similar games. They are mostly hereditary and transferred from previous generations with their inherent cultural and philosophical values (Shinta, Syamsi, and Haryanto 2019). Through playing, children are taught to foster the value of competitiveness, the spirit of togetherness, help, tolerance,
This study was conducted by observing several children aged 6-12 years living in Bandung city and some urban settlements. This age group was selected due to their ability to communicate and express opinions both orally and written (Papalia, Olds, and Feldman 2005). The analysis showed the types of traditional games they recognize, types of games they play, and the spaces they love when playing games. The results are expected to be useful as a basis for major research in mapping the traditional games for Indonesian children in the sustainability concept.

Method

The study started through the distribution of questionnaires to children aged 6-12 years, living in Bandung, and urban or planned settlements around the Antapani as well as urban villages or unplanned settlements located in the Lingga Wastu area directly bordering the Cikapundung River. The study areas were observed to have the same conditions including a school, a fairly large river, varieties of environmental nuances between the artificial environment, and trees with each of them recording 50 children going to school. These areas were considered based on the elementary school age range, the strong influence of environment on children's development, and the increasing desire to explore and seek adventure (Waite, Rogers, and Evans 2013; Dewiyanti 2011; Owens 1992). Outdoor spaces in the form of parks or shared spaces, rivers, suitable environmental roads, and free yards considered to be healthy were found in the selected locations. Meanwhile, a natural environment, garden, or shared space is believed to have the power to attract children to play games and ultimately interact with each other.

The research questions provided include (1) what kind of traditional games do children know? and (2) Do children still play such traditional games and where? These questions were asked to determine the character of the games and the kind of space that stimulates them or vice versa.

The next question was “does space trigger certain types of games or is there no relationship between them?” It is important to confirm this in order to confirm or refute the assumption that the reduction in outside urban space reduces play areas for children. According to Wonoseputro...
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(2007), the non-involvement of children in the arrangement of urban public space areas makes them lose their proper playground and this usually leads to the development of invisible playgrounds (Wonoseputro 2007; Liem and Lake 2018).

The children found to be engaging in the traditional games were interviewed and asked to show the location being referred. Some were also invited to express their preferred space for playing activities and the information retrieved from these verbal/oral expressions were analyzed using content analysis methods to determine, group, and interpret the frequently used important words (Franzosi 2004).

Result and discussion

Classification of traditional games in West Java

Some traditional games in West Java are classified based on the space used either inside or outside, social interaction either individual or group, tools, and gender groups as shown in table 1.

Table 1. Traditional game groups

| The name of the game | Space | Social interaction | Tools | Gender |
|----------------------|-------|--------------------|-------|--------|
|                      | 1     | 2                  | 3     | 4      | 5      | 6     | 7     | 8     |
| Bebentengan          | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Congklak (mancala games) | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Egrang (stilts)      | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Gangseng/gasing      | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Gatrik               | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Gobag sodor          | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Kelereng (marbles)   | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Ketapel (catapult)   | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Engkle (hopscootch)  | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Petak umpe/tacing sumpat (hide and seek) | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Oray-orayan          | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |
| Endog-endogan        | ✓     | ✓                  | ✓     | ✓      | ✓      | ✓     | ✓     | ✓     |

Note:
1: Indoor 5: Need a tool
2: Outdoor 6: Does not need a tool
3: Individual 7: Commonly played by male
4: Group 8: Commonly played by female

Three categories of these games were identified and they include those (1) still known and played by the children with the meaning understood; (2) played by children without knowing it is a traditional game; and (3) totally unknown by the children as shown in figures 1 and figure 2.

Figure 1 shows the games in planned settlements while figure 2 indicates those in unplanned ones. The term planned settlements used in this paper include the areas spatial arranged based on the theoretical rules applied by both government and private developers. They already have complete and standard facilities such as schools, playgrounds, public spaces, and roads.

Meanwhile, unplanned settlements are naturally developed areas based on the needs of the settlers without any reference to the theoretical rules of the existing spatial order (Purbadi, Djunaedi, and Sudaryono 2019; Refranisa 2019; Mahagarmitha 2018; Bawole 2020). They are usually characterized by dense settlements and inhabited by middle to lower-income people for generations. Furthermore, spatial planning is usually an agreement made among the residents (Kastianingrum 2010). This, however, does not mean unplanned settlements always grow into slum areas.
Several traditional games from West Java are unknown and almost disappearing such as pérépét jengkol, sorodot gaplok, paciwit-ciwit lutung, ningnang, ucing kuriling, tokecang, pepeletokan, encrak, sermén, sutén, sasalimpetan, pélak cau, ole-ole ogong, meuncit reungit, jajangkungan, ngajajar tilu/jarlu, gugunungan, ayang – ayang gung, maén bandring and maén panggal, bolu bogen, ambil-ambilan, ucing pengpeun, cingcangkeling, gegelebusan, ucing pegat, galah bandung, galah burulu, and others.

Most of these unknown games are generally a combination of Sundanese sound art, for example, ole-ole ogong which is a children’s game usually played in the rice harvest season. It involves the children walking hand in hand along the edge of the paddy field, blowing trumpets made from dry straw, and singing “olé-olé ogong, melak cabe di tarogong, dihakanku embe ompong, diteang kari sapotong”. Meanwhile, the pérépét jengkol game requires the cooperation of several people as shown in figure 3. It gives the children joy when they accompany their parents at the village in welcoming the rice harvest season.

The traditional games known by the children and their favorite space

From the many types of traditional games found in the study area, apparently, only a few are still being played with some generally observed to be conducted in certain spaces. The observations and interviews with the children showed they prefer open space, both planned and spontaneous, to closed space as shown in table 2. The spontaneity is attached to the fact that children play reflexively, especially when walking with their friends, for example, from school to their
homes. This is possible because the schools are located in settlements areas and this requires the children trek to and fro.

Table 2 shows closed space does not stimulate children to play traditional games. This is understandable because it currently offers thematic games such as dexterity machines and several others and this reduces the relationship with their peers.

Table 2. Space for play

| The name of known game | Open space | Planned | spontaneous |
|------------------------|------------|---------|-------------|
| Congklak (Mancala games) | ✓          | ✓       | ✓           |
| Egrang (Stilts)        | ✓          | ✓       | ✓           |
| Gangsing               | ✓          | ✓       | ✓           |
| Kelereng (Marbles)     | ✓          | ✓       | ✓           |
| Petak umpet/umpep sumput (hide and seek) | ✓          | ✓       | ✓           |
| High jump rubber game  | ✓          | ✓       | ✓           |
| Rubber sapintrong game | ✓          | ✓       | ✓           |
| Beklen (knucklebones)  | ✓          | ✓       | ✓           |

Figure 4 shows how open space is favored by children as a place stimulating to them to participate in traditional play activities, mainly because it allows free movement, especially in an area dominated more by an empty space. This is in line with the findings of Casey (2007) that open space offers free movement, activity choices, and flexibility for children to move as they wish without fear of damage (Casey 2007). In an uninhibited space, children are usually segregated by age group and type of play. Moreover, some games are not affected by gender even though some shows the tendency for gender-based specialization such as marbles. A stimulated open space with special features such as trees, poles, tubs, chairs, and others can also be used as a game aid. According to Harten, Olds, and Dollman (2008), varieties of features in space allow children to creatively select play aids out of different choices (Harten, Olds, and Dollman 2008).

Through pictures, children argue

Children were able to discuss using picture expressions of they expect in a good schoolyard as shown in figure 5. Some of the features such as trees, benches, game furniture, and even trash cans are things observed to have the ability to improve children’s creativity while playing as reflected in their drawings.
According to Bland (2012), children's drawings are actually an imagination of their wishes and the images shown indicate the children expect a school environment with several building elements and apparently without luxury material (Bland 2012). The green aspects of the drawings in the also mean they crave a beautiful school to support their playing activities.

Broda (2007) showed there is no ideal standard for children's playgrounds because they have their instincts in choosing where to play (Broda 2007). However, it is better if adults are able to provide diverse landscape features, for example, through gentle contours, vegetation as well as soft and hard play materials on the land to stimulate them.

Rogers (1976) examined the influence of the school's spatial organization in shaping children's behavior and its effects on their creativity and emotional level (Rogers 1976). Francis (1988) also showed the importance of accepting children's aspirations and negotiating with parents when planning a playing environment or a school environment to ensure it accommodates children's positive play needs (Francis 1988). Broda (2007), however, concluded that the schoolyard is the best play facility for a child's development, therefore, it is important for parents to choose a school with a well-planned yard facility as well as maintain a balance between academic and play needs (Broda 2007).

**Road as a magnet for children**

The road was found in both planned and unplanned settlements to have a special attraction for children to play. This is associated with the fact they attend school in the environment and this allows them to play on the road while going to school and coming back home. This usually happens spontaneously.

Karsten and Van Vliet (2006) and Tranter and Doyle (1996) showed urban children are indeed accustomed to "reconciling" with motorized vehicles to play on residential streets or alleys (Karsten and Van Vliet 2006; Tranter and Doyle 1996). Even though it is dangerous, road space is able to provide creativity that stimulates the desire to play. Figure 6, however, shows the danger with the spontaneous playing activities of children on the road.

There is a need for agreements between settlement managers, residents, and parents to implement positive playing activities on the road. An example of this shown in figure 7 with the schools and community discovered to be teaching and introducing the children to traditional games by playing on the road. The play zone can, however, be provided by the parents or the children themselves as shown in the following pictures.
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In unplanned settlements, children were observed to be playing on the road while begging and this is associated with the fact that the area is inhabited by people with non-permanent income. Therefore, the children help their parents by begging or selling on the street and also playing in the process.

The role of adults in introducing traditional games

It is impossible for children to know traditional games without the intervention of adults at home and at school. Therefore, these games can only be sustained through the participation of both the children and their parents. According to Ginsburg (2007), adult involvement has the ability to strengthen emotional bonds between children and parents as well as their teachers (Ginsburg 2007). Another research has shown that playing together, teaching, or just watching children play makes them feel the love of parents and create a sense of security in them (Yudiwinata 2014).

Roopnarine (2011) also showed it is important for parents to introduce several cultures to their children starting from childhood to help them develop tolerance, insight, and empathy to enrich their cognitive aspects (Roopnarine 2011). These cultures certainly include traditional games which are not only to teach the children how to play but also the philosophy of the game. Figure 8, however, shows the teacher's involvement in participating and introducing traditional games to children.

Tools and playing time

The tools for traditional games are very easy such that children have the ability to produce themselves or buy in stores selling the equipment. These games are better compared to modern ones based on the togetherness and cooperation established among the children and this further makes the tools cheaper and easy to obtain (Kurniati 2016; Nur 2013). Figure 9, therefore, shows some of the play media and tools that can be bought or made by the children.
The observations and interviews with the children in the study areas showed the material used, method of obtaining play material, and the preferred time of playing as shown in Table 3. Generally, it is easy for children to make and produce tools or playing materials because they are provided by nature. Some of these include stones/gravel, trees/vegetation, banana fronds, shells or tree seeds, twisted rubber, bamboo, grapefruit skin, and others. Moreover, the search for these materials stimulates children's creativity and aid their cognition.

These games are generally played during school holidays and certain celebratory moments such as Scout Day, Independence Day, Kartini day, and several others. They are usually designed by the school and this shows the importance of school in ensuring their survival and preservation.

### Table 3. Material, method, and time

| Game                               | Material                                                                 | How to get material                                                                 | Time                                      |
|------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------|
| Congklak (mancala games)           | Plastic, wood, remaining shells, seeds obtained from the road or garden, gravel | Shop, pick up from the beach, pick up on the street                                 | During holidays or celebratory moments    |
| Egrang (stilts)                    | Wood, bamboo                                                             | Made by parents or adults, self-made                                                | During holidays or celebratory moments    |
| Gangsising                         | Plastic, wood                                                            | Buy                                                                                  | During the holidays                       |
| Kelereng (marbles)                 | Glass marbles                                                           | Buy                                                                                  | When vacation, after school               |
| Petak umpetuducing sumpat (hide and seek) | Trees, walls, benches, tables, cabinets, rooms, large buckets, beds, and so on | What is available in the environment                                               | When on vacation, after school, when together with friends |
| High jump rubber game              | Rubber, plastic                                                          | Buy, self-made                                                                       | During holidays or celebratory moments    |
| Rubber sapintron game              | Rubber, plastic                                                          | Buy, self-made                                                                       | During holidays or celebratory moments    |
| Beklen (knucklebones)              | Plastic balls, golf balls, rubber balls, knucklebones, shells            | Buy                                                                                  | During the holidays                       |
**Petak umpet/ucing sumput as a sustainable game**

The information obtained from the children showed *petak umpet/ucing sumput* or hide and seek is the most well-known game up to date even in various parts of the world (Barritt et al. 1944). According to Peskin and Ardino (2003), this game is able to train children to keep secrets and practice patience (Peskin and Ardino 2003). Moreover, children learn the game first from their mothers, doubling as their first teacher, especially when they are being taught about the space in the house.

The game is popular because it is (1) cheap, (2) easy, (3) can be conducted anytime and anywhere, and available, (4) for all ages, genders, groups, and even races throughout the world. It has the ability to establish communication without the use of spoken words and this makes it sustainable. The game also requires the children to think fast in exploring the spaces available in the environment to hide as shown in figure 10. Sometimes the element of togetherness and teasing colleagues in charge of searching becomes more dominant when children run out of ideas in finding space.

![Figure 10. Playing hide and seek (Petak umpet) with friends](image)

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**The space with the ability to stimulate traditional game activities**

It is important to preserve traditional games due to the several positive benefits it presents to the children’s growth as shown in figure 11.

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![Figure 11. The importance of traditional games](image)
Conclusion

Several conclusions were obtained from the data analysis and some of the traditional games observed to be relevant in the studied are congklak (mancala games), stilts (eigrang), trim (gangsing), marbles, petak umpet/ucing sumput (hide and seek), high rubber jump (high jump using rubber bands), sapintron rubber band, and knucklebones. These games are usually played with peers during school holidays and certain celebratory times. However, some of those not known by the children include pérépet jengkol, sorodot gaplok, paciwi-ciwit lutang, ningnang, ucing kuriling, tokecang, pepeletokan, encrak, sermén, sutén, sasalimpetan, pékal cau, ole-ole ogong, meuncit reungit, jajangkungan, ngajajar tilu/jarlau, gugunan, ayang – ayang gun, maén bandring and maén panggai, bolu bogem, ambil-ambilan, ucing pengpeun, cincaungkeling, gegelebusan, ucing pegat, galah bandung, galah burulu, and others. They were discovered not to be known by the children because they are not introduced to them and they generally require dance moves and sound art.

Some other games are being played by children with the help of those concerned with the existence of traditional games. In this case, the teachers, parents, and the community are very influential in ensuring the sustenance of the games. It was also discovered that they are mostly played in structured spaces such as schools or thematic villages deliberately built to educate children or introduce them to the natural life of the village. Moreover, the sustainability of the games is supported by the modification of toy materials and play systems.

Open spaces, roads, and spaces intended for children to play also have a significant role and this means they need to be highly prioritized by the planners. Meanwhile, these spaces and playgrounds would be meaningless without the parents, teachers, and observers introducing the games. This, therefore, places the space in the second layer after the knowledge and experience of parents are transmitted to children as indicated in figure 13. The transmission makes them understand the traditional game philosophy and a positive play experience thereby stimulating their desire to play in the space.
This research showed the traditional games not recognized and played by the children and the sustenance of these games is expected to be a matter of concern for all due to its noble value in building positive child character.

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