Capturing Peer Interactions While Playing Buaya di Bawah Jambatan (BDBJ) Board Game in Learning Adab and Moral Values

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https://doi.org/10.24191/ajue.v17i4.16190

Received: 1 May 2021
Accepted: 25 September 2021
Date Published Online: 31 October 2021
Published: 31 October 2021

Abstract: This paper examines peer interactions among preschoolers while playing the board game known as Buaya di Bawah Jambatan (BDBJ) particularly in learning adab and moral values. Additionally, this study is guided by two research objectives focusing on the nature (types) of interactions among players during the game and suggestions or responses from the instructors on the game including its physical outlook and processes. This research embarked upon a qualitative study where 4, 5 to 6 years old children attending a pre-school in Shah Alam were observed when playing ‘Buaya di Bawah Jambatan’. The sample was basically a group made up of 2 boys & 2 girls. The teacher assigned for the group became the instructor facilitating the whole process of playing the game. Data collected was mainly from the non-participant observations made by the researchers when the game was played. Video recordings too were made to capture the interactions observed during the whole session. Analysis were made both on the initial observation and the subsequent observations done on the recorded videos. The findings of this research revealed three major themes on peer interactions which include (1) learning to be with peers, (2) developing creative thinking and problem solving and (3) humour and laughter. The study also found that suggestions or responses from the instructor comprises both areas of improvements and strengths of the game. These findings are crucial to help teacher-educators to enhance their pedagogical skills and knowledge, particularly on learning adab and moral values in more fun, engaging and meaningful ways. Hence, learning adab and moral values among children should be more dynamic and relevant to children’s lives rather than applying solely on conventional approaches. It is hoped that this study opens more opportunities, insights, and ideas for other researchers to study peer interactions and its relations to games and learning adab with children in other populations such as among the marginalized community and B40 group as well as children with Special Educational Needs (SEN).

Keywords: Peer interaction, adab, moral values, creative thinking and problem solving.
1. Background of the Study

Learning is a process and relatively permanent change that influences both individual behavior and thinking (Ormrod, 2011, Santrock, 2018; Woolfolk, 2019). In other words, the process of learning including adab and moral values is gradual in nature and it involves the application of certain theories or approaches. Adab as mentioned by al-Attas (1980) can be simply understood as “the proper place of thing.” It consists of both recognition and acknowledgement of one’s proper place in relation to one’s physical, intellectual and spiritual capacities and potentials (al-Attas, 1980). Additionally, moral values are related to good behavior, action and thinking which can be developed by understanding the consequences and decision of actions to both self and others (Arnett, & Lene, 2019). What is more, early childhood is the ideal period to begin inculcating adab or moral values so that they may grow to become virtuous persons later in life (Rukiyati, Siswoyo & Hendrowibowo, 2020; Haryono, Siti Muntomimah & Nur Eva, 2020). This paper focuses on how learning adab and moral values among preschoolers can be done in a dynamic way that suits their developmental stage, need and nature. Hence, the word dynamic suggests that peer interactions and play as the fundamental factors to learning adab and moral values among children particularly the preschoolers.

2. Problem Statement

Generally, studies have found that children will have the motivation to learn and later on to practice what they have learned if the approaches used are tailored based on their needs and intrinsic nature, which is play (Arnett & Lene, 2019). Previously classroom instructions on moral values and virtues have applied a behaviorism approach particularly the reward and punishment measures (Ibam et al. 2018). The simplicity of stimulus-response principle suggested by Behaviorism consequently leads to superficial learning. Ibam et. al (2018) contended that children need to learn to understand the decision of their actions. Lack of understanding on the relevance of moral values were found to be associated with lack of discipline and disobedience among children (Ibam et. al, 2018).

The importance of both play and peer interaction in learning adab and moral values among preschoolers has opened a new dimension which is more dynamic in nature. In other words, the learning emphasis is on play as the primary nature of the children which allows interaction and engagement among peers. The interaction and engagement comprises exchanging views, understanding and experience using children language and other forms of verbal communication. Therefore, this study is designed based on two objectives (1) to capture the types of peer interactions that may emerged while playing Buaya di Bawah Jambatan in learning adab and moral values; as well as (2) to gather information on the strengths and weaknesses of the board game from the teacher-moderator perceptions.

3. Literature Review

3.1 Peer interactions as an outcome of playing games as a means of learning for children.

Peer interaction that occurs through play is an important means of learning among children, especially those in the early years. They constitute social exchanges and interdependence of actions between children (Rubin, Bukowski & Parker, 2006 in Coplan & Arbeau, 2009). According to Wan Yunus (2019), research has shown that peer interactions are an important part of children’s development. Through peer interactions, children learn things like communication, language, negotiation and empathy.

Playing games can encourage peer interaction and cooperative learning among children. Johnson and Johnson (2000 in Turner, 2005) noted the importance of peer scaffolding that occurs from cooperative learning. This means that games can create opportunities for children to interact with and learn from each other. Marjanen, Mönkkönen & Vanhala (2011) pointed out the value of board games in learning and promoting peer interactions among children. In their research where they observed children playing a board game, the researchers found that the children in their study showed
commitment to the game and were able to follow the rules of the game. In addition, the children listened to each other and assisted their friends in completing the tasks of the game.

Ibam, Adekunle and Agbonifo (2018) developed a digital version of the Snakes and Ladders game in order to promote moral education among children. In their study, they found that prior to playing the game, the children declared that they were unaware and even unwilling to follow some of the moral values and societal rules asked. However, some were more willing to adhere to these rules after having played the game several times.

3.2 Theoretical framework for the game design

Kohlberg (1958) discovered that children were capable of moral reasoning. After presenting children with the famous Heinz moral dilemma, Kohlberg posed a series of questions to examine children’s moral reasoning process. By asking children probing questions and allowing them the opportunity to explain, he was able to ‘see’ the thinking process unfold. Thus, the process of how children arrive at their responses is an important part of moral reasoning. For this study, therefore, the emphasis of the game is not merely raising children’s awareness on positive and negative values stated in the values cards. A key aspect of the game is initiating discussion about values and moderating the process of moral reasoning.

Learning does not occur independent of children’s surroundings. Children require assistance when learning i.e. scaffolding. In particular, Vygotsky (1934) stressed on the role of the teacher as the More Knowledgeable Other (MKO) in guiding children’s learning within their Zone of Proximal Development (ZPD). This idea is also incorporated in the game as the teacher plays a crucial role as the moderator in order to scaffold children’s discussion about positive and negative values. Discussion on morality and values require careful moderation so that the discussion is beneficial and does not deviate too far from what is deemed culturally appropriate. Turner (2005)

The Socratic method of inquiry is an approach to learning that encourages learners to think critically by encouraging dialogue, self-reflection and “collaborative information creation” on an issue (Delić & Bećirović, 2016; Myburgh & Tammaro, 2013). Using this method, teachers pose questions and encourage learners to articulate their thoughts on the issue thereby making their thinking process visible. This approach is in line with the researchers’ goal of introducing a novel way of teaching moral values to children. Rather than memorising values from books, the aim of BDBJ is to encourage children to think about moral values and develop moral reasoning, guided by the teacher as the moderator. Therefore, the moderator’s role in asking probing questions after reading the question cards is a crucial element of the game.

4. Research Methodology

For the purpose of this study, a qualitative method was employed to uncover and explore the nature of peer interactions among preschool students playing ‘Buaya di Bawah Jambatan’. This is an exploratory case study where a pre-school was chosen as the site of the study. The purpose here is to fully explore and solicit understanding of their experiences when interacting and learning adab and moral values while playing a board game.

Creswell (2007) implied that a case study is a product of inquiry where the researcher/s explores a bounded system or a case. In this study, the case is a pre-school where four-, five- and six-year-old children were specifically selected by the school to play the boardgame, particularly a group of 2 boys and 2 girls. In addition, Yin (2014) and Baxter and Jack (2008) recommended exploratory case study when the intention is to explore those situations in which the intervention being evaluated has no clear, single set of outcomes. In this study, what was intended to be explored were the possible types of interactions among the preschoolers. Another form of interactions observed were the interactions between them and the instructor. The teacher assigned for the group became the facilitator responsible to facilitate and guide them when playing the board game. On the other hand, the intervention or instrument used to learn adab while playing was the boardgame or Buaya di Bawah Jambatan.
4.1 ‘Buaya di Bawah Jambatan’

This is a boardgame developed by the researchers. The objective of this boardgame is mainly to inculcate and instill awareness of civic and moral values among children. It is also hoped that this boardgame would become a teaching aid and an approach to teaching good values in a more appealing and relatable way. There are steps to play the game and the outcome of each movement after a dice was thrown, would result in the student to read out-loud the values proposed in this boardgame. The movement on the boardgame would either end on a ‘jambatan’ (bridge) signifying a player to take a positive moral values card, while a movement towards a ‘Buaya’ (crocodile) would result in the player getting a negative moral values card. The values are printed on two different groups of cards. One stack of cards was for the good or positive moral values while another stack would be for the negative moral values. Examples of such moral statements are: ‘Saya membuang sampah ke dalam longkang. Nilai murni yang perlu ada: Kebersihan’ (Negative statement and proposed values); ‘Saya sering mendoakan kesejahteraan ibu bapa. Nilai murni: Kasih-sayang’ (Positive statement and proposed values). This game would be played by all the players taking turns to throw the dice until the game ends.

Data was collected mainly from the non-participant observations made by the researchers when the game was played. Video recordings were also made by the researchers to capture the interactions observed when the game was played. Observations too were made on gestures and conversations between them. Informal conversation-like interviews were conducted with the teacher cum facilitator of the game. Analysis was made both on the initial non-participant observation notes and fieldnotes. Further analysis too was done on the subsequent observations captured from the recorded videos. As mentioned earlier, the observation was made on the children which were grouped into 2 boys (B1, B2) and 2 girls (G1 and G2) while playing the boardgame, BDBJ.

4.2 Data gathering procedures

The data were made up of
1. Researchers’ observation- researchers’ notes and fieldnotes
2. Video recordings of the boardgame session - video & conversations’ transcriptions
3. Informal or Conversations like interview with the teacher as the facilitator- transcriptions notes

4.3 Fieldnotes and researchers’ observations personal notes

Before the game started, both of the researchers had briefed the objectives as well the methods of how to play the game to the teacher of the group involved. The role of the teacher as the facilitator of the game as in the facilitator to the whole process of learning was explained in detail. Observations were personally made by the two researchers while the boardgame session was going on. While the whole game was played, the researchers as non-participant observers had recorded as well as noted individually on what was observed. These noted observations in writing were the personal observations notes and the fieldnotes of the context, nature of conversations and interactions taking place when the game was played. Observations on gestures and conversations between them (between and among the students, between and among the students and teacher) were also observed throughout the whole process of playing the game.

4.4 Video recordings

In addition, to better capture the whole process of teaching and learning while playing this boardgame, video recordings too were made. The need to record the session was impertinent so as to not missed any possible learning moments as well as allow the researchers to capture unexpected and subtle interactions observed when the game was played. These video recordings, the researchers

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believed, then becomes an added data source, reliable and authentic in nature when doing this research. Recordings were made when the game started till it ended. These then were translated and transcribed into written document also known as the video transcriptions.

4.5 Informal or Conversations like interview

After the game was done and the students were dispersed for their short break, the researchers had a short interview with the teacher. The whole session was rather informal and done in a conversation-like approach. The teacher was comfortable and enthusiastic when giving her responses. It was a short session lasting for only about 20-30 minutes only. Questions mainly were asked seeking on her experiences and opinions over the boardgame, students’ interactions and responses and the overall effectiveness and usefulness when learning adab via playing this boardgame. These conversations were transcribed later as the interview transcription.

4.6 Analysis

Analysis was made to the all the observations’ notes and transcriptions. After the analysis, significant statements related to the research objectives were identified. Codes were assigned to each and one of them. These codes were later grouped together according to them having similar meanings. From these expressions, the researcher identified the main attribute that was reflected in all of the significant statements. This process provided the basis to assign the emerging themes of this study. To ensure rigour to the whole process of collecting and analyzing the data, this study employs several strategies to enhance its’ reliability and validity. Among them were keeping a record of audit trail, utilizing data triangulation, employing members check and peers check. Ethical considerations too were initiated early on when the researchers started by seeking permission to conduct this research from the childhood learning center.

5. Result and Data Discussion

The findings derived from video analysis, researcher’s field notes and teacher’ feedbacks revealed three major themes on peer interactions which include (1) learning to be with peers, (2) developing creative thinking and problem solving and (3) humour and laughter.

5.1 Learning to be with peers

According to van Oers and Hännikäinen (2001), children often learn to do things together in a group when they are required to do an activity together. The group members are said to have feelings of emotional interconnectedness that are linked to their experience during an activity. Furthermore, Guo (2010) stated that there is a desire in people to want to belong when doing an activity together. Through observations of the children playing with the board game BDBJ, there was evidence of children learning to be with their peers and wanting to be together during the activity. For example, the children were very excited during the game and they kept asking questions among each other such as “What number on the dice did you get?” “What does the writing say?” “What does that mean for you? What about me?” Other than asking questions, the children were seen to be supporting and motivating each other too when they were playing the game, which is a clear sign that they were connected to each other during the activity. Some examples of their peer support include statements like, “Come on!” “You can do it!” “Yes you are right” “I can help” “Number seven is here”. Apart from that, the children were seen to follow the rules of the game by respecting each other like patiently taking turns, counting the squares in the board game together, spinning the dice carefully, passing the dice nicely to the next person and discussing the questions on the cards together and then giving answers to the teacher in charge politely.

The importance of togetherness or being with peers can be linked to Vygotsky’s (1981) theory where he mentioned the importance of affective and social dimensions to a person’s learning
and development. Specifically, the Zone of Proximal Development (ZPD). The ZPD refers to the gap between what one knows and what one can get to know with the assistance of more capable others (Wan Yunus & Dalli, 2019). Vygotsky believed that children could not go far if they had to do the learning on their own, and thus they needed assistance and interactions with more knowledgeable adults and peers. According to this perspective, children learn more when they are in a group rather than alone. Thus, through the researchers’ observations during the board game activity, there was evidence of children learning to be with peers and three instances of learning to be with peers were classified into asking questions among peers, supporting, and motivating peers and respecting peers. Supporting to this finding, a research conducted by Mazuin et al. (2020) emphasized the importance of positive peer relationships and also the relationship between teacher-educator and the students to enhance students motivation in learning and in other educational activities.

5.2 Developing creative thinking and problem solving

The study also found that the children involved in the game were able to develop creative thinking and problem solving skills together during their board game session. For example, when a peer’s dice landed on a question card, the children tried to read out the question aloud together and then they paused and thought about the answer. Oftentimes, the questions on the cards reminded them of their memories and the children were able to give an extended answer where they added their personal experiences and memories in relation to the questions. For instance, a question on “Adakah gotong-royong itu bagus?” or in English “Is working together towards something a good thing?” While most of the students replied “Yes” to the questions, one child gave an example of cleaning the bathroom together and making sure to flush the toilet. Some of the peers giggled at this but they also gave an example of other activities that they did together in the past as well as things that they can do together in a group. Perhaps a teacher’s job at this moment is to probe more of these ideas from the children. It can be done by asking questions for the children to think of more examples or asking them to elaborate their ideas so that they can develop their thinking skills. Unfortunately, this was not observed. However, the children themselves were probing each other by telling stories from their experiences. When one child said something, another child wanted to chipped in and join the conversation too. Thus, the children were seen as being capable of developing creative thinking among themselves as they played the board game in a group.

Apart from creative thinking skills, there was also many evidence from the video analysis and teacher’s feedback showing that the children were able to develop problem solving skills. In one scene from the video, a child’s chip landed on a question card where it asked, “Is it good to tease friends?” The teacher who acted as a moderator during the game took the chance to make the students reflect on the subject. She asked the children to be reflective by asking questions, “Have you ever been teased? If your friends teased you, what are you going to do about it?” The children gave some thoughts to the questions before they answer the questions. The children were seen to build on each other’s answers, and they were also able to discuss their peers’ answers by asking more questions about it and gave agreement or disagreement to their peers’ statements. This kind of reflective questions demand children to deeply think about the questions asked and then brainstorm at finding solutions to the problems. The question “What are you going to do about it?” sparked interest in the children and they were seen able to think of many possible solutions if the situations were to happen to them. This shows how peer interactions among themselves can help children think creatively and boost their problem-solving skills. Vygotsky (1978) has argued that when children interact with more advanced peers, they are challenged to participate in more advanced problem solving than they would normally be capable of independently. Children then internalize these skills for use in future problem solving situations (Ramani, 2005; Tudge & Rogoff, 1989).
5.3 Humour and Laughter

Children are capable of developing humor and laughter as young as 4 months old and they enjoy telling jokes and teasing each other (Mireault, Crockenberg, Sparrow, Cousineau, Pettinato and Woodard, 2015 as cited in Farhana Wan Yunus and Dalli, 2019). Mireault and Reddy (2016), stated that humor is first and foremost a social act. It is what people do with other people, and thus it is an act of communication (Angeleri and Airenti 2014; Mireault and Reddy 2016). This act of communication that exists together with humour and laughter while physically playing the game is exactly the reason why the game remains a board game instead of being “upgraded” to a digital application.

The following vignette describes instances where humour and laughter existed while playing the game. One student landed on the crocodile thus he had to read a negative card. The card stated “Saya suka berbual semasa kelas” or in English “I love to talk in the class”. The teacher who acted as a moderator then asked “Do you like to talk in the class?”. The rest of the children who were in the game can be seen laughing while making fun and teasing each other while the teacher was trying to justify why it is wrong to talk to each other while class is ongoing. Perhaps, the children's laughter also stemmed from them reflecting on their own actions of being guilty in committing the act in class. The teacher asked “Why were you laughing, did you do this in class”. The students again can be seen giggling while looking at each other. (Data from video analysis one)

Another example of humour and laughter occurring that was found on video happened whenever one of the players failed to find the chip that represents him or her, the rest of the players will laugh at the person saying “Ha! Dah hilang” or in English “Ha! Your chip is missing” continued with giggles from the others. Also, the children can be seen laughing each time their friends have to go down the crocodile to a lower number. Interestingly, humor is a form of learning that can be easily translated as language that create happy mood and laughter among children and students regardless age and ethnicity. Humor has the ability to uplift students morale especially on learning something technical, theoretical, and dry subjects like history and foreign languages just to name a few. A study conducted by Farnia et al., (2020) highlighted that the existence and practice of humour in a classroom can potentially elicit positive mood and it has the ability to facilitate learning and students understanding.

5.4 Suggestions on Improving the Game

The teacher, whose role was also as a moderator for the game, suggested a few modifications for the researchers to make in order to improve the game. Among the comments given were on reducing the numbers on the board game. In an interview session she mentioned that “I think the numbers of blocks on the board needs to be reduced to suit the age group. The children are around 5 to 6 years old thus having to play until number 90 is too much of a number. I suggest reducing the numbers to only 50. As you can observe, they were really interested in playing the game in the beginning but they got distracted after a while when it took too long to reach the finish line”. (Interview data, field notes and video analysis 3).

Another suggestion on improving the game involves simplifying the sentences on the negative and positive cards. For example, a child landed on the crocodile which means she has to pick a negative card to read, reflect and justify. The child read the card “Saya suka meninggikan suara bila bercakap dengan ibu bapa saya” or in English, “I like to raise my voice when talking to my parents”. The child looked a bit confused after reading the card. The teacher then asked “Can we raise our voice when talking to our mother?”. Again, a confused expression on the child’s face. The teacher then rephrased the sentence, “Boleh kita cakap kuat-kuat dengan ibu kita?” or in English “Can we speak loudly to our mothers?”. The child’s eyes widened, perhaps indicating understanding after the sentences was rephrased and answered “No, we cannot” (Interview data, field notes and video analysis 4).

Researchers also noticed that teachers as moderators sometimes directly justify whether the behaviour read on the cards are positive or negative. After reading the card, the teacher would explain
the sentence further and justify why the behaviour on the card is either positive or negative, thus, putting a value on the statements. Instead of allowing the children to deliberate whether something was a bad or good behaviour, the teacher hinted at which behaviours are negative and which are positive. This has resulted in children not having time to think and reflect on their own free will as a result of the teacher’s value interference. Therefore, another suggestion to improve the game involves making the instructions clearer for teachers to understand that they need to pause for children to respond before implying the values. Also, perhaps it would be useful to include some examples of probing questions in the instructions to teachers. Teachers need to be aware that “not only should the children be given opportunities to answer ‘yes’ or ‘no’ but they also need to be able to discuss and relate the events on the card to their own experiences” (field notes N).

5.5 Strengths of the Game

Overall, the teacher’s responses to the game were positive. They understood the objectives of the game and reassured that with some improvements, such as reducing the number of blocks and simplifying the sentences, the game would be a hit among children (Field note N).

The children on the other hand, were also very excited to play the game citing the board “is very colourful with vivid colours”. “There were so many crocodiles and bridges to cross” and “I love these spinning numbers”, referring to the dice which is in the form of an arrow where the children have to spin and move to the number the arrow pointed. (Video analysis 2).

The presence of a teacher acting as the moderator supports Vygotsky’s scaffolding and the related concept of the zone of proximal development as teaching methods. Children get to learn from their teachers as mentors and from other more capable peers. Among others, the children also learn skills such as taking turns, calming themselves down, and reading words on the cards with the teacher’s and more capable peers’ assistance.

Another interesting part of the game observed was when the children were able to relate to the values being read on the card with their own experiences. The researchers were very meticulous in choosing the experiences that children under six could relate to. (Field note N). For instance, statements were formed relating to children’s everyday life with family, friends and school. A teacher’s role here is to moderate how the statement on the card was interpreted by the children. For example if a child landed on the card that says “I do not like to flush after using the toilet”, the role of a moderator is salient to avoid incidences of shaming or bullying. A teacher has to be there and act as a facilitator or moderator rather than a teacher to ensure the smooth flow of the game and take part in teaching and learning when the children land on a question card (Field note N).

These findings are crucial to help teacher-educators to enhance their pedagogical skills and knowledge, particularly on learning adab and moral values in more fun, engaging and meaningful ways. Hence, learning adab and moral values among children should be more dynamic and relevant to children’s lives rather than applying solely on conventional approaches. In relations to teaching moral values, soft skills including Adab to students teacher-educator has to ensure the elements of self-directed learning and professional development are crucial in order to enhance pedagogical and content skills to effectively deliver the course.

6. Conclusion

Generally, the need to understand children’s developmental nature is crucial in order to help learning be relevant, meaningful, and engaging. It is evident that play is intrinsically built among children, and it is linked to most children’s developmental aspects such as cognitive, physical, socioemotional and moral. Previous approaches to learning adab and moral values were limited to conventional practices hence lacking in meaningful experiences to comprehend the relevance of it consequently leading to children’s disobedience and lack of discipline. This study suggested a dynamic approach to learning adab and moral values among preschoolers by putting forward the elements of play and peer interaction. The board game known as Buaya di Bawah Jambatan (BDBJ) was designed with statements on the cards meticulously written to reflect eastern values and adab.
Next, the researchers/inventors also designed the physical outlook of the game to be as colourful with vibrant colours to make it appear attractive to the children. More opportunities can be explored in order to improve the existing game, and this initiative can be further enhanced by approaching potential partnerships from the industries for collaborative projects.

7. References


