



#### **Conference Paper**

# **Development of Child Friendly Educative** Game Model As Method to Prevent Violence **Against Children in School**

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Cases of violence against children in the form of physical, psychological, or sexual violence has been increasing in Indonesia, particularly violence cases that occur at school. Teacher candidates' level of knowledge on violence against children (bullying) at school was only in the "sufficient" category. In addition, nowadays, children games that contain local contents and values such as cooperation, sportsmanship, and companionship has been abandoned by children. This study aimed to produce a product from the development of child-friendly educative game model that promote prevention of violence against children, particularly at school. This study used Level 1 Research and Development (R & D) method because it only achieved the fourth stage, namely Main Model Revision. The produced "anti-violence against children snake and ladder game" was an educative game product from which children could learn about the value of anti-violence and anti-bullying in school through games. The snake and ladder game was accompanied by game instruction, picture concept, and message regarding implementation of anti-violence and anti-bullying efforts at school, which was adjusted for children. The resulting game product was designed to integrate all elements present in formal education on anti-violence and anti-bullying efforts. The average pretest results was 18 and the average post-test results was 45. It can be concluded that "anti-violence against children snake and ladder" game model could increase knowledge by 150%.

Keywords: children, game, violence

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Received: 21 May 2019 Accepted: 26 June 2019 Published: 7 July 2019

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Selection and Peer-review under the responsibility of the UICRIC Conference Committee.

## 1. Background

Violence against children is an act of physical violence, sexual violence, emotional abuse, or negligence towards children [1]. According to Blackburn (2009), a quarter of adults had experienced physical violence in their childhood. Violence against children is an abuse and negligence towards children which is not always obvious, hence it tends to be ignored [2]. Moreover, the children who experienced violence may not tell it to anybody or understand what happened [3]. Lack of awareness and supervision from

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parents at home or from teachers at school caused the children to experience difficulty in acquiring help when they experience violence [4, 5].

Violence against children could also be seen as every acts or series of acts or negligence by the guardian, parents, or other caretaker that endanger or potentially harm or threatened children. Nowadays, violence against children happens quite often [6, 7].

There are various types of violence at school which could be called bullying. The term bullying itself means mistreatment or harassment conducted without clear motive but deliberately or repeatedly performed towards a weaker person [8]. Due to its complexity, prevention of violence against children cannot depend wholly governement's program and services but also how the government and community consider this issue [9, 10]. In addition, the success rate of a prevention program could be increased by utilizing local potential, such as involvement of parents, headmaster, teachers, and peers [11].

National Commission on Children Protection (KPAI) stated that recently, cases of violence against children in the form of physical, psychological, or sexual violences frequently occur in Indonesia, either at school, home, and social environment. According to a study by KPAI in 2012 on 9 provinces using 1.026 child respondents (elementary school/Islamic elementary school, junior high school/Islamic junior high school, and senior high school/Islamic senior high school), 91% respondents claimed that they received some form of violence in the family environment, 87.6% claimed that they received some form of violence at school, and 17.9% claimed that they experienced violence in the community [12].

The result of preliminary study on teacher candidates'level of knowledge on children bullying at school showed that, on average, level of knowledge on types of violence against children at school was categorized as "sufficient". Out of the three forms of violence (physical, verbal, and psychological), the most understood form of violence was physical violence, because it is more easily recognized compared to verbal or psychological violence [13].

Child consultation on prevention of violence at school (Semarang City, Klaten Regency, and Pemalang Regency) conducted by BP3AKB of Central Java Province in collaboration with UNICEF in 2012 found the types of violence experienced by students or their friends at school. The examples of physical violence were: pinched, knocked, pushed, striked, kicked, hit by ruler, tweaked, slapped, thrown eraser, blow at the back, getting their hair pulled. Meanwhile, the examples of verbal/psychological/emotional violence were ridiculed, mocked, yelled at, scolded, insulted, calumniated, forced to go in front of the class to answer a question although they already said that they could not,



judged to be a "virus", isolated, and told that they act too much. Lastly, the examples of sexual violence were hugged, groped or poked in the breast area, teased, constant staring with eye winks, intentionally touched in breast area, showed handphones that contain pornographic images, opened their skirt (for girls), kissed, touched in vagina area, etc [14].

Beside the data above, the study also found that violence could occur at home and conducted by someone who live in the same house. Out of the 1.286 cases found, the most common form of violence was pinched (15.9%). Meanwhile, some serious forms of violence that commonly occurred in 9 villages in Klaten Regency were 12 cases of smacking the head to the wall (1.01%), 12 cases of strangulation (0.93%), 9 cases of burning with cigarette/fire (0.7%), and 5 cases of sharp object wounds (0.39%) [15].

From the above data, it is clearly seen that violence against children (KtA) could occurany where. On the other side, child games that contain local custom and value of cooperation, sportsmanship, and companionship (for example: "engklek", "gobak-sodor", "petakumpet", "benthic", etc.) has been abandoned in recent years. Meanwhile, there are many games sold in the market that contain disturbing contents such as violence, bullying, discrimination towards susceptible child group, oppression towards several children; several games even contain pornographic and love affair materials which are not appropriate for children because it can increase teenage marriage or pregnancy outside marriage among teens. Such games could be acquired from comics, card games, stickers, online game, and others.

Given the above background, the researchers formulated a study titled "Development of Child-Friendly Educative Game Model as Method to Prevent Violence against Children in School". This study aimed to produce a product from development of child friendly educative game model that contains the prevention of violence against children values, particularly at school. This study could produce practical benefit to the children because the outcome is a product from development of educative game model which is child-friendly and contain prevention of violence against children values, particularly at school.

#### 2. Method

This study used research and development (R & D) study method. R & D is a process or steps to develop a new product or to improve existing product and to test the effectivity of that model. The R & D in this study was performed until model trial stage to test the effectivity of the model. Design improvement process was acquired from the result of evaluation and suggestion from several children during trial stage. The data



was acquired from FGD and observation, and through interview and pre test-post test during the final product evaluation stage.

#### 3. Resuts and Discussion

This study was conducted through four stages, namely 1) basic research and information collection through observation and FGD to identify the types of games already in the market, the types of game that could be developed, and games that could be easily played and sufficiently interesting for the children, 2) development of preliminary model form which was development of game model in the early design, 3) trial of model which was testing of product to several children, 4) main model revision was a process of design improvement acquired from the result of evaluation and suggestion from the children in trial stage. The suggestion was acquired through interview and pre test-post test results.

The first stage of this study was to identify the types of game already in the market and had a potential to be developed. It was conducted through FGD attended by members of Centers of Study for Gender/Women and Children from all of Central Java which were held in Network of Center of Study for Women, Gender, and Children of Central Java Province. From this FGD, several early ideas on the alternatives of child games that are widely played and had a potential to be developed, for example: "engklek", "monopoli", "ludo", "snake and ladder", "rock, paper, and scissors", and "child puppet show". Analysis was performed to select which game can be easily played by a group of children and easily developed. Besides, the researcher also observed several child game stores and street vendors who sold child games in front of the school gate in order to directly view the type and quality of child games sold in the market and played by many children, either because of its cheap price, easy to be played, fun, and routinely played by groups of children. In the end, the snake and ladder game was chosen.

In the second stage, early game design development was performed. The design production was performed through concept drafting, number of pictures, and message content that includes the concept of gender equality. The design was produced by designer; afterwards the design draft was consulted to the researcher every week to assess the accuracy of messages included in the games, picture quality, picture expression, color, picture position, picture accuracy, and the general appropriateness of picture attributes with the concept determined by the researcher. After early design was finished, the next step was to print the game in small numbers to be tested in the third stage. The result of the game product is shown below.

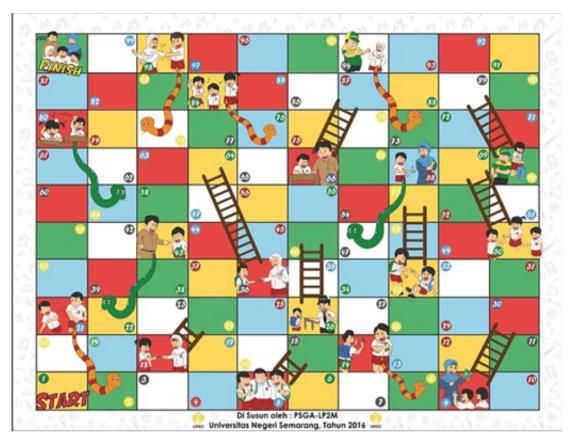


Figure 1: Snake and ladder game.

The third stage was trial of early research model. The early product was tested to several elementary school children because they are the main target for this product. The children were chosen randomly from different grades (1<sup>st</sup>, 2<sup>nd</sup>, and 6<sup>th</sup> grade) in order to know whether the message in the form of pictures and writings could be received well by elementary school students from the youngest age (1<sup>st</sup> grade) to the oldest age (6<sup>th</sup> grade). In the trial, the researcher observed the students when they played the game and in the end of the play, the researcher discussed with the children to evaluate the product using guideline of interview question.

The results of trial evaluation was used to improve the game design. The points evaluated were whether the game was easy to play, interesting, fun to play, and the comprehensibility of the message in the game. Through these points the researcher acquired suggestions from children to improve the product. From the evaluation result, the children involved in the trial stated that the game was easy to be played, interesting, good, had funny pictures, and they could understand the message in the picture. From the interview, the children could mention the types of violence and the form of bullying that they should not do and the punishmentif they performed such negative acts. In the context of snake and ladder games, this meant that they must move several steps



backwards. From the evaluation process, the children also suggested to add instructions to play the game.

The fourth or final stage of the study was improvement of the product design after trial stage which were conducted through editing and addition of game instruction in accordance to the suggestions from children during trial stage.

The instruction for this snake and ladder game consisted of procedure guideline, steps of the game, and things that must be remembered during the game, including the safety aspect. The instruction explained that the game can be played by several children, ideally from 3 to 5 children. The steps were: 1) prepare the snake and ladder game paper, 2) prepare a dice, 3) prepare the pawns with similar number as the number of players, 4) one child chose only one pawn as his/her representative, 5) at the start of the game, every child had to throw the dice and the child with the highest dice number will have the first turn to play; subsequent turns are also determined in the same way, 6) the first child throw the dice, read the number of the dice, and move his/her pawn forward according to the number shown on the dice, 7) after the first player finished, the next player throw the dice and the same applies for subsequent players.

In addition, the product is equipped with notes containing important things to be remembered during the game, namely: 1) If the pawn stop at ladder or snake picture, the child who play the pawn had to explain the message of the picture and stated his/her opinion regarding the picture whether it was a positive or negative act. 2) When the player stop at ladder, the pawn could ascend to the position pointed by the ladder. Conversely, when the pawn stop at the snake picture, he/she must descend according to the direction of the snake. The ladder showed positive points which is violence prevention effort, including bullying at school, while snake showed negative points which is violence acts, incluing bullying at school. 3) The winner of the game is the child who arrived first at the 100<sup>th</sup> box or finish box. The safety guideline in the game also stated that the game should not be played by children under 3 years old and the players are prohibited to insert the pawn and dice into the mouth because of their small size, and it is prohibited to throw them to other people.

The snake and ladder game was part of the efforts to prevent violence against children, particularly at school, in the form of educative and child-friendly game where the children could learn about anti-violence values including bullying at school. Through this educational media, children could learn through fun games. The game was easy to be played by children because this game is already played by Indonesian children for a long time, therefore the children had no difficulties in playing it. Although the researcher slightly modified the game by adding a point in which the child is asked to explain a



picture's story and tell his/her opinion on the picture in the box where their pawn is located. This is to make sure the child understand the message in the game.

The product has a main rule whereby the game could be played by at least two players, and ideally by 3-5 players. This is to facilitate the children to play in a group which adds additional values such as togetherness, cooperation, discipline, and sportsmanship.

The product of this study was transforming the original snake and ladder game into a value-added game that teaches values such as anti-violence, anti-bullying at school, companionship, cooperation, discipline, and sportsmanship for elementary school students. Elementary school students were chosen because they could understand and explain the message that they saw and they could play orderly in a group. Therefore, since elementary school, children could understand the value of anti-violence and antibullying at school, hence they would not become the perpetrator of violence and bullying at school, able to prevent violence and bullying at school, are not apathetic towards what happens in their school, and became an agent of change for anti-violence and antibullying movement at school.

On the other hand, the researchers formulated the game's concept using comprehensive approach involving all elements involved in teaching and learning process for antiviolence and antibullying efforts at school, such as supervisor/headmaster, teachers, school committee, students' parents, the students (from the same grade, or more senior or junior grade), and supporting staffs at school such as security guard and cleaning service.

After final improvement, the next step was measuring the effectivity of "anti-violence snake and ladder" game through measurement of children's level of knowledge before and after they played the game. The group of children chosen at this stage was different with the group of children at trial stage. The level of knowledge was seen from pretest and post-test marks. From the measurement, the average pretest result was 18 and the average posttest result was 45. This means that there was an increase in posttest mark by 150%.

In addition, evaluation was also performed by the school through teachers. They stated that the school was committed to provide lessons on anti-violence and antibullying concepts to all students in their elementary school, both inside thematic subjects such as moral or civic studies, and also in their spare time such as after school tests through educative and fun game for children such as this "anti violence snake and ladder" game.

Preventing violence against children in schools is not only done through increasing children's knowledge through fun media games but also requires integrative holistic



efforts, such as high commitment from the government, teachers, school management including improving teacher's capacity in learning process and integrating into education subjects [16].

### 4. Conclusion

In this study, it can be concluded that the "anti-violence snake and ladder" game had been developed to contain pictorial concept, message, and language that had been adjusted for research targets, namely elementary school students. From this educative game, children could learn about anti-violence and anti-bullying values, particularly at school through a fun learning method. The game's main advantage is its special design that involved all elements in theteaching-learning process for implementation of anti-violence and antibullying effort at school, such as involvement of the head-master/supervisor, teachers, school committee, student's parents, the students (from the same grade, or more senior or junior grade), and supporting staff at school such as security guard and cleaning service. The additional value of this product is the capability to teach the values of companionship, cooperation, discipline, and sportsmanship.

From the trial result, it was known that there was an increase in children's level of knowledge from average pretest mark of 18 to average posttest mark of 45. This means that there was an increase in level of knowledge by 150% as measured from pretest and postest marks.

We suggested that the "anti-violence snake and ladder" game product be publicized to groups of children in larger community and disseminated to every schools in Indonesia as an educative game media for anti-violence and antibullying campaign at school.

# **Acknowledgements**

This research was funded by Research Grant Scheme 2016 by Universitas Negeri Semarang. And we give our greatest gratitude to the services, opportunities, and trust to LP2M Universitas Negeri Semarang.

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