

Creative Innovation; Designing Home Safety Boardgame for Children

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ABSTRACT

The home environment is a major cause of accidents in children, while the development of the home safety concept in Indonesia is not as popular as abroad. Safe Kids Indonesia (SKI) is a non-profit institution that focused on family and child safety topics. After successfully launching a book on the theme of home safety, Wahyu Minarto as the founder of SKI wanted to create an alternative media introduction to home safety in the form of board games. This game is designed to introduce children to home safety, thus facilitating the role of parents in teaching children about potential hazards and how to overcome them. The research method used is Design Solution by Robin Landa. The result of this design is a roll and move board game that uses cartoon illustration style with warm colors to suit the characteristics of children. This board game mainly portray rooms in the house and their activities with isometric techniques. On this board game, there are 5 types of game cards with illustrations and simple sentences that are easily understood by children. These cards are Safe & Smart, Safe & Fun, Secure or Loss, Oopstacle and Safety Equipment.

Keywords: Board Game, Home Safety, Design

1. INTRODUCTION

Accidents and injuries to children can occur anywhere and at any time. Kushcithawati, Magetsari, & Nawi [1] stated that the home environment is the dominant factor for the occurrence of injuries in children. Wahyu Minarto, founder of the Safe Kids Indonesia community, also expressed the same opinion, namely that accidents on children most often occur at home by Purnamasari [2].

Nadia [3] stated the development of home safety in Indonesia is not as popular as abroad. During activities at home, adults are more vigilant and able to identify hazards that may occur at home. Adults often pay no attention to provide guidance on the risks and dangers that may exist in the home to children.

Children's lack of knowledge of danger contributes to their vulnerability. On top of that, children are often not able to identify dangerous situation, stated by Desmita [4]. According to Purnamasari [5] children are often unaware of the consequences of their actions. This can lead to fatal situations. Danger can occur in children ranging from children waking up, where children play, objects around the house, weather, insects and other animals. All children regardless of age should be taught about dangerous situation that can help them take charge of their safety. Children also have the same right as the adult to gain provisions in understanding about their own safety.

Safe Kids Indonesia (SKI) is a non-profit institution that focused on family and child safety topics. On November 28th 2019, SKI launched a boardbook titled "Ibu, ada tamu!" ("Mom, there is a guest!"). This boardbook is home safety themed that provide interactive features such as flip-flaps, unloading and wipe clean. After the book was successfully launched, Wahyu Minarto as the founder of SKI wanted to make an alternative media introduction to home safety in the form of board games. This game is designed to introduce children to home safety, thus facilitating the role of parents in teaching children about potential hazards and how to overcome them.

Based on the background above, it is necessary to design board games that can provide education about risks and dangers that exist in the home for children. Through this design is expected to instill an attitude in children and realize the importance of safety in themselves.

2. BACKGROUND

2.1 Research Method

The research method used is from Robin Landa [6] in his book titled "Design Solution" which divided the design

process into 5 phases : Orientation, Analysis, Conception, Design and Implementation.

2.1.1. Orientation

In this phase, the designer identifies the needs and problems of a project. The orientation process is to learn about the needs and problems of the target audience. Data collection methods in this design are as follows:

2.1.1.1. Primary Data

Sources of data obtained directly from sources or first parties to answer research questions. Primary data collection is done by interview. In this case, an interview will be conducted with the founder of Safe Kids Indonesia and safety coach Wahyu Minarto. The client brief summary is from the interview with the client model as follows:

- (1) Family board game that can be played by children with adults / parents.
- (2) Board games that give new experiences every time being played.
- (3) Applying the concept of ANAK (Observe the danger, Value the Risk, Take action and Communicate) to the board game.

Observations were done by observing children's board games at the Big Bad Wolf book fair on March 11, 2020. From the observations, the authors obtained the following data:

- (1) Illustration boardgame for children using bright colors and full color.
- (2) Board games are usually made of binding boards with the same material as hardcover books or board books. Most board book and board game materials for children have thicknesses above 1,5 mm.
- (3) Character designs on board games have unrealistic proportions and a lot of distortion.

2.1.1.2. Secondary Data

Sources of data obtained through intermediary media, this data is used as additional support in the design. This data was collected from literature studies both sourced from the internet, books, articles, and journals that are closely related to the theme and object of designing Board Game as a Media for the Introduction of Home Safety in children.

2.1.2. Analysis and Strategy

From the data that has been obtained previously will be analyzed at this stage. When analyzing, there are several

things that must be considered so that it can facilitate the process of forming a strategy:

- (1) Pay attention to every part of the problem.
- (2) Determine the constituent elements in a concise and accurate manner.
- (3) Arrange information so that it is divided into parts that are easy to analyze.
- (4) Make conclusions based on analysis, making it possible to advance to the next step.

After conducting the analysis, strategies are needed to achieve differentiation, relevance and resonance. The result of strategy formation is a brief, which will later facilitate the design process.

2.1.2.1. Target Audience

The target audience of this design is children at the age 7 to 9 years. As the target area is Jakarta, psychographically has a high curiosity and able to absorb knowledge well. Whereas behaviorally, children that mainly active at home.

2.1.2.2. Competitor

PREDIKT (Preparedness for Disaster toolKIT) board game that aims to introduce disaster preparedness to children in a fun way. This toolkit contains interactive posters, stickers, game sheets, flashlights, emergency whistles, and ladder snake board games. Visually, the board game illustrations are interesting and use bright colors. The board game card contains disaster mitigation questions. This board game can be played starting from the age of 6 to 7 years. The number of players 3 to 5 people. Basically the game uses dice rolling mechanic and point to point moves.



Figure 1 Competitor

2.1.3. Conception

The design concept will follow the creative brief that has been formed. Creative decisions made will shape the design concept, responding to the needs of the project by ensuring the effectiveness and success of the design. Some of the processes in concept formation are:

2.1.3.1. Preparation

At this stage tools and materials are prepared to assist in the process of concept formation, such as software, internet connections, drawing tools, coloring tools, etc. The way the designer works can be adapted to the tools and materials used. At this stage it is very important to write keywords and ideas that come to mind because they can be used as concepts.

2.1.3.2. Incubation Period

After reviewing the material and ideas for design, incubation is an important but optional step. Incubation is the stage where the designer takes a short break, absorbing everything that has been learned while refreshing the mind. The designer can get new skills and experience during the incubation period that can help the project being worked on. At this stage, designer take a look at references of board game for children.

2.1.3.3. Illumination

Following the strategy that had been made in the previous stage the designer would decide to draft the concept. The visuals and content goals are colorful, unique and eye catching.

2.1.3.4. Verification

Final solidification of previous visual alternatives. At this stage the designer has determined the visual to be determined and there are no major revisions. Furthermore, designer also decided typography and color concept with moodboard as the final result.



Figure 2 Moodboard

2.1.4. Design

The following are the steps undertaken in developing designs in general. Usually each designer develops the stage that best suits them and this stage is not a requirement / obligation. Generally divided into 3 stages, namely:

2.1.4.1. Small Sketch

The process consists of quick, colorless and small sketch. Sketching can discover and explore various visual possibilities.

2.1.4.2. Rough Sketch

This process aims to explore creative approaches and find some of the best ideas to use in drawing design concepts.

2.1.4.3. Comprehensive

Visualization representation of a detailed design concept. Usually in the form of prints or dummy, so that the description /form of the work when it is produced later can be seen by the author and the client.

2.1.5. Implementation

The design results are prepared in digital form or mold according to the type chosen at the initial design stage. There are several things needed to help the implementation process, namely:

2.1.5.1. Software

Make visual design using software, both products that are ready for production or mockup. The software that used during the progress is Adobe Illustrator.

2.1.5.2. Skills

The ability, skill, and dexterity of the designer gives the client an understanding of the final design results through mockup or dummy. This ability is also included in choosing materials, bindings and printing quality. The design concept can be improved by working well.

2.1.5.3. Presentation

The ability to communicate concepts and designs to clients is also important, good presentations help sell creative solutions to clients. The skills and abilities of using software can help presentations.

2.2 Results and Discussion

2.2.1. Creative Concept

The board game using roll and move mechanism that is easily understood by children. According to Bell [7] roll and move type of game use dice or other media to produce random numbers. This number will be used to determine the number of steps the player must take.

This board game provide light physical activity for adding more entertainment while learning. The big idea of the board game "Safe at Home with Chilla & Aska" is that players are invited to adventure with Chilla and Aska while collecting safety points while facing risks and dangers that exist in the home. So that children, as well as adults can recognize the types of hazards and practice safe habits. In addition, children and adults can learn about safety tools that must be owned. Players are played from 3 to 5 people and can be played with parents.

The game board measures 42 x 59.4 cm with chipboard layers of texture art paper and laminating matte. Components contained in this game board are 120 cards measuring 7 x 10.5 cm consisting of 30 question cards (Safe & Smart Card), 20 activity cards (Safe & Fun Card), 30 action cards (Secure or Loss Card), 20 obstacles card (Oopstacle Card) and 20 safety equipment cards (Safety Equipment Card). Card names are taken after safety terms and adjusted to the theme of the board game.

2.2.2. Creative Execution Style

2.2.2.1. Illustration Style

One of the character hierarchies according to Bancroft [8] is Simple, which is a simple character and has expressive facial expressions. In this design using simple character illustrations, with open and friendly gestures. The aims of the design is simple and funny cartoon character, but still has its uniqueness. Isometric technique is applied in the board games in order to clearly potray the state of real house.

2.2.2.2. Typography Style

Typography in children's learning media must be customized with the characteristic of the children. One of the children's characteristic according to Fadillah et al [9] is "... the uniqueness and characteristics of early childhood is love to play ..." Characteristics of children who like to play show that children are active and dynamic. Fonts that are suitable for children are the types of fonts that have a round and blunt shape at the edges. This font has a flexible, dynamic and pleasing impression. Therefore,

according to Nusantara and Irawan [10] the group of letters that are suitable for these age children is the Sans Serif group. Therefore, the author chose to use Balsamic Sans and Futura fonts on the card so that children can see visually while reading comfortably.

2.2.2.3. Color Scheme

Children tend to like warm colors. In addition to bright colors, children also like the combination of light colors compared to adults by Purnama [11]. Therefore, the bright colors used on board games are red, orange, yellow, green, blue and purple. The color scheme used in this Board game is bright and pastel color. Bright colors on the characters so that characters can be stand out, and pastel colors for the background as the complement to the character.

2.2.3. Design Results

2.2.3.1. Boardgame Logo

The combination mark logo is used to keeping the name front and ensures instant recognition while having graphic element. Therefore, the logotype should be easy to read and represent expressive manner. The author decided to use the Porky's Heavy font as the main font because it match the concept. After using the font, the author displays two main characters Chilla and Aska. The faces of Chilla and Aska were placed next to the logotype with the intention that people will be interested in taking an adventure with them.



Figure 3 Boardgame logo

2.2.3.2. Game Pawns

The character illustrations are made with eye catching color combinations to imply the children's cheerfulness. Skintones of the character are made in 2 different color to symbolize diversity in Indonesia. The outfits of the character are customized with the children's everyday

clothes. The characters are named Chilla, Aska, Hani, Gema and Maya.



Figure 4 Game Pawns

2.2.3.3. Game Cards

The game cards design used colors that match the boardgame track. Each card has an illustration to enhance the understanding of children in terms of content listed on the card. The front of the card is made simple and focused on the card title.



Figure 5 Front view of the Game Cards



Figure 6: Safe & Smart Card



Figure 7 Safe & Fun Card



Figure 8 Secure or Loss Card



Figure 9 Oopstacle Card



Figure 10 Safety Equipment Card



Figure 11 Safety Point

2.2.3.6. Packaging

The front cover of packaging accentuated the character of Chilla and friends. Illustration of door and window is added to the packaging's side in order to portray the house situation. Then author also put the symbol of the minimum player and age of the player.

Packaging measuring 30 x 40 x 8 cm. Inside is a 4 cm high bulkhead with 5 sections containing 120 cards. At the bottom is divided into 4 sections that contain board games, pawn games, guide book and safety points.

2.2.3.4. Board Game

The colors of the board games are dominated by warm colors, to imply the cheerfulness of children. Board game tracks are used the color red, yellow, green and blue. Brown outlines are given on the tracks in order to separate the tracks and the background.



Figure 12 Board game

2.2.3.5. Guidebook

The cover on the guidebook accentuated the characters. Grid layout applied into the book to make it comfortable for children and parents to read.



Figure 13 Guide Book



Figure 14 Boardgame Packaging



Figure 15 Boardgame Component

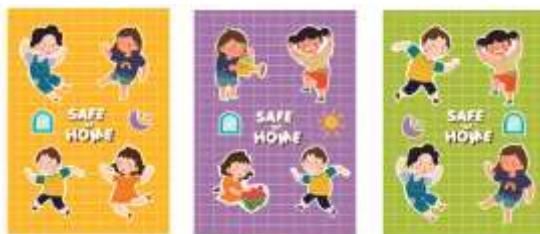
2.2.3.7. Promotional Media


Figure 15 Sticker



Figure 18 Tottebag



Figure 16 X-Banner



Figure 19 Pin



Figure 20 Face Mask



Figure 17 T-shirt



Figure 21 Pencil Case

3. CONCLUSION

Safe Kids Indonesia is a non-profit institution that focused on family and child safety topics. SKI intend to create an alternative media for the introduction of home safety in the form of board games. The design method used is Design

Solution by Robin Landa. The results of the design are roll and move board games measuring 42 x 59.4 cm with isometric techniques. Five types of cards are Safe & Smart, Safe & Fun, Secure or Loss, Oopstacle and Safety Equipment. This game is designed to introduce children to home safety, thus facilitating the role of parents in teaching children about potential hazards and how to overcome them. Through this design is expected to instill cautious attitude in children and realize the importance of safety values in themselves.

The following conclusions are reached after the runtest is done: Game duration is between 30 to 45 minutes and participant seems to enjoy the game especially when there is action to do. "Safe at Home with Chilla & Aska" board game is intended for children age 7 to 9 years, so the level is relatively easy. For older age, questions can be adjusted or reviewed.

In Indonesia, there are still a few learning media about home safety, therefore for further researchers, it is recommended to develop alternative ideas and added the level of play to become more interesting. In addition, making board games is very complex and requires a long time. Therefore, carefully consider the topics, characteristic and the impact to the final stage.

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