

## DESIGNING A BOARD GAME AS A VEGETABLE INTRODUCTION MEDIA INFORMATION FOR EARLY CHILDREN

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**Abstract:** Children's knowledge of various vegetables affects the way children consume vegetables so that children get minimal vitamin intake that should be fulfilled from an early age. The purpose of this board game formulation is to introduce a variety of vegetables about healthy food for early childhood so that the child's level of interest in consuming vegetables can increase. The design refers to Bruce Archer's design model, namely descriptive procedural, which includes problem background, problem formulation, data identification, data analysis, synthesis, design concept, design process, and final design. Data collection techniques are the results of interviews with kindergarten teachers, parents, nutritionists, and psychologists as well as observations to observe children's behavior towards their interest in vegetable consumption. The design result is in the form of a board game that can be used as an interactive media for children's introduction of various vegetables.

**Keywords:** Vegetable, Board Game, Early Childhood

### INTRODUCTION

Vegetables are one of the food groups in the FAO classification, known as the Desirable Dietary Pattern [1]. The nutrients contained in vegetables are needed as the main source of micro substances (vitamins and minerals) as regulating substances in the body, one of which is in children. Childhood is a period of growth that requires nutrition in accordance with the slogan 4 healthy 5 perfect [2]. One of the most important nutrients for the golden age comes from vegetables.

Nowadays, the habit of consuming vegetables is something that is rarely done by some people, especially children. The difficulty in consuming daily vegetables is due to the bitter taste contained therein, which causes a feeling of dislike. In addition, children tend to like foods that have a sweet, salty taste, so that they attract children's interests.

Various attempts were made to overcome children's difficulties in consuming vegetables. Starting from the role of parents in serving vegetables with various techniques, creating a routine to eat vegetables for children, and also the main thing is providing education to children about the introduction of various vegetables and their ingredients. One solution to increasing children's interest in consuming vegetables is by introducing a variety of vegetables to young children.

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There are various kinds of solutions that can be applied to introduce vegetables to children, namely by using various media, such as printed media (books, children's books, encyclopedias, journals, etc.), audiovisual media such as (radio, animation, short films), multimedia (websites), mobile applications), as well as game media (board games, card games).

The learning process of vulnerable children aged 4 - 6 years (pre-school) is by playing. By playing, children can develop self-confidence, train motor skills and hone children's analytical power with quite effective results [3]. Direct physical reliance on this learning process is important in child development. Early childhood routines generally have the characteristics of being happy with playing so that the values that are applied can be easily embedded in their minds. Therefore, the board game media was chosen in this design because this game can make it easier for children to recognize a variety of vegetables.

Considering the importance of consuming vegetables for children's growth and development, especially in early childhood, they often face difficulties, so the design of a board game as a medium of information in the introduction of various vegetables was carried out. This design aims to introduce various kinds of vegetables and the content of vitamins and minerals contained by playing.

## METHODS

### 1. Method of Collecting Data

Primary data is taken from direct data sources without intermediaries, namely by using interview techniques. The type of interview used in this data collection process is a structured interview. A structured interview is an interview that is conducted using a list of questions that have been planned or made prior to conducting interviews with the source and a list of questions will be asked to the informants in the same order. Secondary data is data or supporting information in the design or research process. Secondary data used in data collection are electronic documents such as websites and etc.

### 2. Interview

Interview data was taken online to several respondents with job criteria that were considered to be related to the research, namely including parents, kindergarten teachers, child psychologists, and nutritionists.

### 3. Observation

Observation data took the subject of several Kindergarten - Kindergarten students at TK Dharma Wanita Seloliman. Participants in this observation have criteria, including children aged 4 - 6 years or children who are currently undergoing early childhood education, as well as male and female. The number of children who participated in this observation activity was 9 children.

### 4. Literature

Library data is obtained from printed books, online, theses, articles, journals, and dissertations.

### 5. Data Analysis Method

The data analyst applied to analyze the data in this design is 5W1H. The 5W1H method is used to determine the current conditions regarding the design topic. Examples of this method are finding out what the term board game is, visualizing various kinds of vegetables for early childhood, what are the uses and functions, who does it, where, how and etc.

#### a) What

The analysis question uses the question word What has the aim of knowing a design that will be created. The design of this board game takes the objects names from various vegetables as a medium of information on the introduction of healthy food.

#### b) Who

The main target in this planning is children aged 4 - 6 years or the age where the children are currently studying in Kindergarten.

#### c) When

The design of the board game game as a medium for introducing the variety of vegetables can be done anytime when the child wants to play, whether it is used as a learning medium at school or used as a media to play at home.

#### d) Where

Designing a board game as a medium for the introduction of various vegetables is a place that can be used in a classroom or in a house as long as the mat or floor is flat and solid, making it easier for the playing process.

#### e) Why

The purpose of designing this board game is to be used as a medium for introducing children to various vegetables, so that children can find out the names of vegetables consumed in daily life. In this board game there is a brief explanation of the content contained in it. So, in addition to being a means of play that can

introduce the names of various vegetables, children will also be given a brief description of the content contained in vegetables.

f) How

In the analysis using how the information sought is a process as the method to be used in design. In designing this board game the method used includes interviews, observations, documents, and other literature sources that are related to the design of the board game as a medium for introducing various vegetables.

## RESULTS AND DISCUSSION

This vegetable variety board game targets early childhood aged 4 - 6 years who do not like to consume vegetables in everyday life. The level of children's fondness for low consumption of vegetables is influenced by several reasons, including in terms of taste and texture of vegetables that are less digestible, the tendency of children to have tried but have a bad impression of vegetables so that children do not want to consume anymore, and the introduction of various vegetables from an early age is less applied so that children do not know the variety of vegetables that are important for their growth and development.

Therefore, the strategy that will be carried out to increase children's fondness in consuming vegetables can be done by designing board games as a medium for identifying various vegetables, complete with benefits and vitamin content which are briefly described. through this board game children will find it easier to capture the information conveyed because early childhood learns through a game, besides being able to capture information children can learn to establish a communication in completing a mission that is being carried out on a board game.

### 1. Target audience

#### a) Demographics

Age: 4 - 6 years

Education: kinderganten

Gender: male and female

#### b) Geographical

Indonesia

#### c) Psychographics

Board games are an old game that is currently back in the trend that is being of interest to the public, including early childhood. Therefore, there is a need for a board game about the variety of vegetables that can be used as an alternative for children to get to know the variety of vegetables which displays several vegetable illustrations.

#### d) Behaviorist

Early childhood will be more interested in information conveyed through a game, because children at that age are happy with something that has a story and is fun.

### 2. Creative Strategy

The design of this board has a message that will be described through educational content. The content that is delivered is interactive where the child will take full control of the process of completing the game so that this board game is effective and informative.

The design of the message content includes the use of friendly language and visuals for children aged 4 - 6 years, does not have excessive meaning, and is able to convey information in a fun way. Besides having a fun nature so that children don't get bored easily, board games also have to adapt to the application of interactions between children. Interactive means that children can establish communication with fellow friends so that it helps children in active practice. This can also solve the problem of children who have weaknesses in being passive while in class.

### 3. Verbal Concepts

The design of this board game has the aim of being a medium for introduction to early childhood about healthy food, especially vegetables. In this game, it is hoped that children can build relationships with fellow friends so as to create enthusiasm for learning and children's interest in knowing the names of vegetables.

4. Visual Concept

The design process is done digitally using Adobe Illustrator and Adobe Photoshop software. The technique used in designing the board game is a vector with a flat design style with the use of bright colors.

5. Color

In this vegetable illustration, you don't use a combination of colors excessively, but only explore a few colors. The color chosen is a color that has bright and striking nuances so that the child's level of interest can increase.

6. Typography

The design of this board game uses a sans serif font with a "bubble bobble" font title. The choice of this font is because this font has the meaning of fun, which is fun, suitable for early childhood characters. This font also has a simple shape, without having many decorative elements so that it is easy and has a sufficient level of clarity to be readable for early childhood.

7. Character Design

This board game character design takes on the role of a farmer of four people. This character will be used on road cards and boards. farmer character design is useful as a supporter of the atmosphere of a vegetable plantation.



Figure 1. Character Design

8. Support media

This board game will later be marketed to students or adolescents, so that the existence of the media that is superior is not enough. Therefore we need a supporting media that aims as a media for product promotion as well as providing information both online and offline. These media include merchandise in the form of posters, banners, lunch boxes, drinking places, tote bags and t-shirts.

## 9. Final Result

This board game provides information about early introduction to children about the types of vegetables along with the benefits that are explained briefly. This game has several components, namely the board, cards, cue cards, and the statue of the person that the player will run. The purpose of this board game is to arouse children's interest in consuming vegetables through children's knowledge of the types of vegetables and their benefits.



Figure 2. Vegetable Character Design

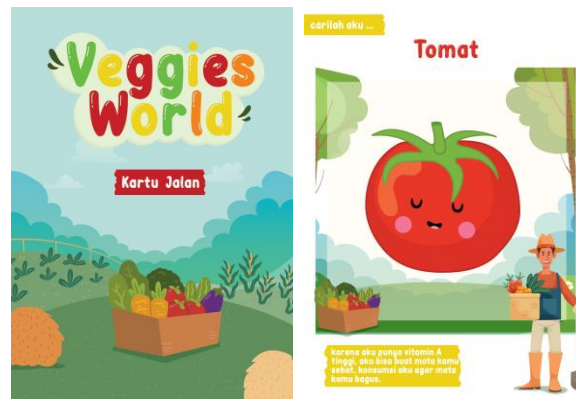


Figure 3. Road Card Design

## CONCLUSION

With this board game, it is hoped that it can become an early recognition medium for early childhood to increase children's interest in consuming vegetables through knowledge of vegetables. Able to become a medium that can introduce more deeply about the importance of vegetables that are good for body health. and can be a medium for children's learning in communicating with players.

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