

Visual Communication Design

Practice Notes

Understanding The Way To Survive and Improve for Universities Students into a Healthy Lifestyle in South of Jakarta Dormitories

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Abstract: This study explores the challenges faced by university students living in dormitories in South Jakarta in maintaining a healthy lifestyle while managing academic responsibilities. Limited access to nutritious food, reliance on affordable yet unhealthy options, and low cooking proficiency contribute to poor dietary habits among students. Many students frequently depend on online food delivery services due to convenience, promotional pricing, and time constraints, often resulting in irregular eating patterns and reduced nutritional quality. Using a qualitative research approach, this study gathers data through literature review, observations, and interviews with dormitory students to understand their eating behaviors, motivations, and lifestyle constraints. Findings indicate that most students rarely cook, possess only basic or insufficient cooking skills, and often skip meals such as breakfast or dinner. Despite awareness of healthy eating principles, practical barriers limit their application in daily life. To address this issue, the study proposes the use of digital media specifically an educational cooking video game as an engaging tool to improve students' cooking skills and promote healthier eating habits. By integrating elements of gameplay with nutritional knowledge and simple, budget-friendly recipes, the proposed design aims to encourage behavioral change in a fun and accessible way, ultimately supporting students in achieving a balanced and sustainable lifestyle.

Keywords: Cooking skill, students, dormitory, survive, design

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INTRODUCTION

In today's digital era, many daily needs can be fulfilled easily through online platforms, including food consumption. The increasing use of food delivery applications reflects a shift in lifestyle toward convenience and efficiency (Reginamaharani, 2022). According to data reported in 2023, more than 40% of Indonesians use digital applications to purchase food, often influenced by promotional offers (Masyhudi, 2019). This trend is particularly relevant among students, especially those living in dormitories, who tend to prioritize time efficiency and convenience over preparing their own meals. However, reliance on food delivery services also has negative implications. Frequent consumption of fast food and reduced physical activity can lead to unhealthy lifestyle patterns and increased health risks (Yunianto et al., 2021). Additionally,



excessive exposure to promotional offers may encourage impulsive consumption behavior, reinforcing a culture of convenience over necessity (Reginamaharani, 2022). This raises an important question: with the growing accessibility of online food services, do young people still need cooking skills?

Background

Students living in dormitories often face challenges in maintaining a balanced lifestyle due to limited access to home-cooked meals and time constraints. Many students rely on external food sources such as restaurants, convenience stores, or online delivery services, which may not always guarantee nutritional quality (Yunianto et al., 2021). Homesickness is another common issue among students living away from home, often associated with missing home-cooked meals and family routines. This condition highlights the emotional and cultural significance of food in daily life. Therefore, introducing simple and affordable cooking knowledge becomes essential in supporting both physical and emotional well-being.

Scope

This study aims to explore students' familiarity with digital applications, their eating habits, and their ability to prepare food independently. It also emphasizes the importance of nutritional awareness based on established dietary guidelines such as the Balanced Nutrition Guidelines promoted in Indonesia (Kementerian Kesehatan RI, 2022).

LITERATURE REVIEW

This research draws upon various studies related to nutrition, cooking skills, and lifestyle behavior. A study conducted by the Department of Nutrition Sciences at Hasanuddin University demonstrated that cooking training significantly improves students' ability to prepare meals, indicating the importance of educational interventions in developing practical life skills (Yunianto et al., 2021).

University and Dormitory Context

According to data from the Ministry of Education and Culture, there are hundreds of universities in Jakarta, with a significant concentration in South Jakarta (Informatika dan Statistik Pemprov DKI Jakarta, 2023). Statistical data also show a large student population, many of whom live in dormitories or boarding houses (Badan Pusat Statistik DKI Jakarta, 2022). The availability of thousands of dormitory rooms indicates a high number of students living independently, which reinforces the relevance of studying their lifestyle and dietary habits.

Concept of Healthy Food in Indonesia

The concept of "4 Sehat 5 Sempurna" introduced in the 1950s has evolved into the Balanced Nutrition Guidelines (PGS), which emphasize not only food diversity but also portion balance, hygiene, and physical activity (Kementerian Kesehatan RI, 2022). These guidelines align with global recommendations following the World Food Conference and WHO initiatives, promoting a more comprehensive approach to nutrition. Studies show that dietary behavior significantly influences overall health, including risks of chronic diseases and metabolic disorders (Yunianto et al., 2021). Additionally, the use of instant seasonings, while practical, may pose health risks due to high levels of salt, fat, and preservatives, which are associated with increased cholesterol and cardiovascular diseases (Ohorella, 2024). The World Health Organization also recommends adequate consumption of fruits and vegetables to maintain optimal health and prevent chronic illnesses, highlighting the importance of balanced dietary intake (Kementerian Kesehatan RI, 2022).

METHODS

This study employs a qualitative research approach to gain in-depth understanding of students' behaviors, motivations, and challenges related to food consumption and cooking practices. Qualitative methods are particularly suitable for exploring lifestyle patterns and subjective experiences (Yunianto et al., 2021).

Introduction

In order to have a deeper understanding of the issue, the research approach incorporates a number of different data sources, the identification of the problem, and an analysis of the competitors. The project was conceptualized using qualitative research from a variety of sources, including journals, papers, books, data sets, observations, and interviews.

Data Sources

As mentioned before, the information was achieved by journal, article, book, observations, and interviews with several college students. Various data sources were collected to gain a better understanding of the project's topic, medium, and target audience. Data were collected from journals, articles, books, and institutional reports, including publications from the Ministry of Health of Indonesia and previous studies on cooking skills interventions (Bernardo et al., 2018). These sources provide both theoretical and empirical foundations for understanding the relationship between cooking skills and dietary behavior. The collected data was including journals from the Ministry of Health Republic Indonesia, the Department of Nutrition Sciences at Hasanuddin University, Cooking Skills Journal from couple of countries such as Malaysia and Brazil.

The Minsitry of Health Republic Indonesia

The Ministry of Health Republic Indonesia was once explained the Principles of Balanced Nutrition consist of 4 (four) Pillars which are basically a series of efforts to balance the nutrients that come out and the nutrients that come in by monitoring body weight regularly. First, eating a variety of foods. What is meant by variety in this principle, apart from diversity of types of food, also includes a balanced proportion of food, in sufficient quantities, not excessive and done regularly. Dietary recommendations in the last few decades have taken into account the proportions of each food group according to their supposed needs. For example, it is currently recommended to consume more vegetables and fruit compared to previous recommendations. Likewise, the amount of food that contains sugar, salt and fat, which can increase the risk of several non-communicable diseases, is recommended to be reduced. Recently, drinking sufficient amounts of water has been included as a component of balanced nutrition because of the importance of water in metabolic processes and in preventing dehydration.

Second, obtain the habit clean living behavior. A culture of clean-living behavior will prevent a person from being exposed to sources of infection. For example, always wash your hands with soap and clean running water before eating, before preparing food and drinks, and after defecating and urinating, this will prevent contamination of hands and food from disease germs, including typhus and dysentery. Third, perform physical activity. Physical activity, which includes all kinds of bodily activities, including exercise, is an effort to balance the expenditure and intake of nutrients, the main source of energy in the body. Fourth, monitor the body weight (BW) regularly to maintain the normal body weight. Monitoring normal weight is something that must be part of a 'lifestyle' with 'balanced nutrition', so that it can prevent deviations from normal weight, and if deviations occur, preventive and handling steps can be taken immediately.

Balanced nutrition message for teenagers aged 10-19 years (pre-puberty and puberty)

In general, children aged 10-19 years have entered adolescence and have more mature motor and cognitive characteristics compared to their previous age. Teenage boys generally like heavy, sweaty physical activity. In terms of linear growth (height), in early adolescence there is a

second stage of rapid growth. This has an impact on the importance of the need for energy, protein, fat, water, calcium, magnesium, vitamin D and vitamin A which are important for growth. Young women and prospective brides need to consume a variety of foods to meet their needs for energy, protein and micronutrients (vitamins and minerals) because they are used for rapid growth, increasing blood volume and increasing hemoglobin. The important micronutrients needed by adolescent girls are iron and folic acid to form hemoglobin and prevent anemia caused by iron loss during menstruation. Green vegetables such as spinach, kale, broccoli and legumes (beans, long beans, etc.) contain lots of carotenoids and folic acid which are very necessary during pregnancy. Colored fruits such as papaya, orange, mango etc. is a good source of vitamins for the body. Fruits also contain lots of fiber which can facilitate bowel movements thereby reducing the risk of constipation. Colored fruit, whether yellow, red, orange, blue, purple and others, generally contain lots of vitamins, especially vitamin A, and antioxidants. Vitamins are needed by the body to help metabolic processes in the body, while antioxidants are needed to destroy compounds resulting from oxidation, free radicals, which has an adverse effect on health.

Balanced nutrition message for general people

The nutritional quality and completeness of nutrients is influenced by the diversity of types of food consumed. The more diverse types of food consumed, the easier it is to meet nutritional needs. In fact, the more diverse the food consumed, the easier it is for the body to obtain various other substances that are beneficial for health. Therefore, consuming a variety of foods is an important recommendation for achieving balanced nutrition. The way to implement this message is to consume the five food groups every day or at every meal. The five food groups are staple foods, side dishes, vegetables, fruit and drinks. Eating more than one type of each food group (staple foods, side dishes, vegetables and fruit) at each meal will be better. Everyone is expected to always be grateful and enjoy the food they consume. Gratitude can be expressed in the form of praying before eating. The pleasure of eating is determined by the suitability of the combination of varieties and spices, processing methods, food presentation and dining atmosphere. A good way to eat is to eat without haste. Being grateful and enjoying eating a variety of foods will support the realization of a good way of eating, not in a hurry. This way the food can be chewed, digested and absorbed by the body better.

In general, vegetables and fruit are sources of various vitamins, minerals and dietary fiber. Some of the vitamins and minerals contained in vegetables and fruit act as antioxidants or antidotes to bad compounds in the body. Unlike vegetables, fruits also provide carbohydrates, especially fructose and glucose. Certain vegetables also provide carbohydrates, such as carrots and potatoes. Meanwhile, certain fruits also provide unsaturated fats, such as avocados and red fruit. Therefore, consuming vegetables and fruit is an important part of achieving balanced nutrition.

The World Health Organization (WHO) generally recommends consuming vegetables and fruit for a healthy life of 400 g per person per day, consisting of 250 g of vegetables (equivalent to 2 ½ portions or 2 ½ glasses of vegetables after cooking and draining) and 150 g of fruit, (equivalent to 3 medium sized Ambon bananas or 1 ½ pieces of medium sized papaya or 3 medium sized oranges). For Indonesians, it is recommended to consume 300-400 g of vegetables and fruit per day for children under five and school age children, and 400-600 g per person per day for teenagers and adults. About two thirds of the recommended amount of vegetable and fruit consumption is vegetable portions. Various studies show that adequate consumption of vegetables and fruit plays a role in maintaining normal blood pressure, blood sugar and cholesterol levels. Consuming enough vegetables and fruit also reduces the risk of difficulty defecating (defecation/constipation) and obesity. This shows that adequate consumption of vegetables and fruit plays a role in preventing chronic non-communicable diseases. Consuming enough vegetables and fruit is a simple indicator of balanced nutrition.

Side dishes consist of food sources of animal protein and food sources of vegetable protein. The group of side dishes that source animal protein includes ruminant meat (beef, goat meat, venison, etc.), poultry meat (chicken meat, duck meat, etc.), fish including seafood, eggs and

milk and their processed products. The food group of side dishes that are sources of vegetable protein include nuts and processed products such as soybeans, tofu, tempeh, green beans, peanuts, red beans, black beans, and cowpeas. The need for animal food is 2-4 portions, equivalent to 70-140 g (2-4 pieces) of medium beef; or 80-160 g (2-4 pieces) medium sized chicken; or 80-160 g (2-4 pieces) of medium sized fish a day. The need for vegetable protein are 2-4 portions a day, equivalent to 100-200 g (4-8 pieces) of medium sized tempeh; or 200-400 g (4-8 pieces) medium sized tofu. The recommended portion depends on the age group and physiological condition (pregnant, breastfeeding, elderly, child, teenager, adult). Milk as part of animal food consumed in the form of a drink is recommended, especially for pregnant women, breastfeeding mothers and children after the age of one year. Those who experience diarrhea or lactose intolerance from drinking milk are not recommended to drink animal milk. Consuming eggs, soy milk and fish are an alternative solution. As previously explained, both groups of animal and vegetable proteins have their respective advantages and disadvantages. Therefore, in realizing Balanced Nutrition, these two food groups (animal and vegetable) need to be consumed together with other food groups every day, so that the quantity and quality of the nutrients consumed are better and more perfect.

Staple foods are foods containing carbohydrates that are often consumed or have been part of the eating culture of various ethnic groups in Indonesia for a long time. Examples of carbohydrate foods are rice, corn, cassava, sweet potatoes, taro, arrowroot, sorghum, millet, sago and their processed products. Indonesia is rich in various food sources of carbohydrates and the way to actualized a varied consumption pattern of staple foods is to consume more than one type of staple food a day or at one meal. One way to raise the image of local carbohydrate foods is by mixing local carbohydrate foods with flour, such as developing various culinary products, for example, bread or noodles mixed with cassava flour and wheat flour, making banana rolls, fried cassava with grated cheese.

Observation and interviews

The observation and interviews were conducted with various students who currently live in dormitories and within the target audience for the purposes of the research. Some of the interviews were held one-on-one and online through zoom meeting.

Problem Identification

Findings from observations and interviews indicate that most students rely on purchased food rather than cooking independently. This behavior aligns with broader consumption trends influenced by convenience and accessibility of food services (Reginamaharani, 2022). At the same time, inadequate dietary habits, such as skipping meals and consuming low-quality food, may contribute to long-term health risks (Yunianto et al., 2021). Therefore, improving cooking skills and nutritional awareness becomes a critical intervention area.

The main problem was all of the students who got interviewed responded that they do acquired food by purchasing, be there in shops, at restaurant, or catering for the dormitory. Some of the students are experiencing homesickness and miss their home meal. The students rarely cook by themselves and their skill is average or poor. The data from observation shows that some of the students skip breakfast, and some of them skip dinner and some of them have snacks. The students that skip the breakfast and dinner probably facing the same problem, either they cannot manage their time or they do not have ideas of how to get the meal they want or specifically home meal. Actually, they do know the fact that when they bought the food, especially if it's fast food, the quality of the food is not yet 100% guaranteed healthy or in hygiene environment if compared to cooking the food themselves where they can control the portion, the seasoning, and most importantly, the price and cleanliness. And the reason why is actually quite simple, they simply do not have the time or to think about what to cook or eat and already tired enough to think about the dishes after they cooked. The junk food that they consume and the unhealthy habit of eating only twice a day could be leading to health problem in the future, Concerning all of this factors, one of the solutions to this problem is to encourage them to cook by themselves, acquired healthy home meal, avoid buying unhealthy meal and give them a healthy, simple, filling, and yet

budget-friendly cooking recipes for them to try to cook by learning and experiments, also enhance their cooking skill through the digital media.

Competitor Analysis

Of course, there are a quite a lot of cooking game available on many platforms. Some of the most popular ones are Cooking Simulator, Overcooked Series, Cooking Mama Series, Ale and Tale Tavern, and many more. And here are the quick summaries of them.

Cooking simulator

A game where you play with first person point of view when a player gets to be the chef in a restaurant. The game will give you instructions how to cook each ingredient and prepare to serve the dishes. The fun part is that you have to control the hands individually, it did not just cut nicely or evenly, but the player actually has to cut it according the movement of the consoles or the mouse, usually the player the end product is quite different than is supposed to be (maybe even displeasing), but that is the fun or twist of the game.

Overcooked series

A game where you can play solo or multiplayer where we have to prepare cooked ingredients and organize/arrange each of the ingredients to make it a dish. But here is the deal, you are dealing with a limited time to serve up the foods, and the more you play the level, the more complicated the dishes are as well, and chaos awaiting for the players to foul up the dishes or the flow of making the dishes.

Cooking Mama series

This game is one of the most established franchises of the game, from Nintendo consoles to PS4, and now available for mobile devices as well. The game is very detailed about step-by-step instructions to make a dish. Various to do for each step and definitely lots of global recipes to try, and with cheery music and theme, the game is very suitable for kids even adult to play.

Ale and Tale Tavern

Like Cooking Simulator, this game is using first person point of view, but the story is that you are an owner of a tavern and quite literally have to manage everything there. From preparing the chairs and table, cook the food, be the cashier, and even wash the dishes, and many more.

RESULTS & DISCUSSION

The research will talk about the result and draw conclusions or summaries from both the interviews and observations activities. Following this is discussing, sketching for the visual of the game that includes references from another video games, assets, characters, game flows, recipes and experimenting/simulating about how the ingredients work if combine properly or badly.

Interviews and Observations

Responds from Interviews show that the students at the beginning must adjust themselves to the new situation, especially when acquired their meal. They usually get their meal at home ready to consume, while in the new situation when at the dormitory they must acquire their meal by their own, although it comes with various way, either from buying online, buying from student canteen or food stall and cooking by themselves, it is not the same with the comfort they feel at home. Some of the students experience the hard time feeling of the homesickness. They also admit that the meal they have daily is only for survival, they sometimes missed their home meal. The data also shows that only small portion of students cook by themselves and the cooking skill is average or poor. Most of the students spend much of their time in their campus. The students also respond that they all play video game for relaxation after they return to their dormitory and respond positively about cooking game.

Concept Design

The visualization study was based on the theory that perception is reality. A study by Ian E. Gordon regarding the Theories of Visual Perception examines the connection between perception and reality. If we apply this theory regarding the healthy food in the cooking games, then if the mind has perception that healthy food is achievable than healthy food is the reality. The graphic games that have visual images of healthy food can influence this perception.

Concept of the game

The Video Game aim is to encourage students to cook healthy food and enhance their cooking skill. Then firstly, the game title should be captivating the student's imagination and perception, also represent the message in an interesting way.

The game title reflects the simple way of cooking by using "flash" word, and fun way of cooking by using bright colours. Based on the concept of healthy food by the Ministry of Health mentioned in chapter 2, which is the Balanced Nutrition Guidelines (PGS), a healthy food should consist of variety and balanced food. The title reflects this by displaying a variety food represent by staple (potatoes), protein (egg) and vegetable (spinach). The composition also reflects the balance by spreading the food image in an organic way surrounding the title.

Video Game References

There are Cooking Game which already exist and come with different approach, that can be use as references, among others are: Cooking Mama, Touhou Mystia's Izakaya and Genshin Impact. Cooking Mama is taken as the references because it was the first cooking game known by the author of this study. Touhou Mystia's Izakaya and Genshin Impact is taken as references because these games are played by the student who are interviewed. The study present analysis of each game based on the type, colour scheme, characters, movement and experience. Afterward, the results can be use as the based to create the cooking game that contain educational message and enhance the cooking skill, with the improve type and approach, the align colour scheme and characters, also the suitable movement and experience.

Cooking Mama is a video game series and media franchise owned by Cooking Mama Limited. The series is a cookery simulation-styled minigame compilation of many video games and adventures for Nintendo gaming platforms. Generally, the gameplay revolves around performing different kitchen tasks, through the instructions of "Mama", to cook various meals.

Gameplay involves the player following the instructions of the titular "Mama" to cook various meals. This is performed by using the device's controller, typically the touch screen, to perform various kitchen tasks such as chopping vegetables, slicing meat, flipping food in pans, and arranging the final items onto a plate. Each of these tasks is accomplished by completing a minigame which usually lasts less than 10 seconds. The series' gameplay structure consists of the player progressing through a series of short minigames.

Each minigame represents a different activity in the meal preparation, such as mixing, frying, or chopping the provided ingredients. The minigame mechanics themselves range from quickly drawing parallel lines in order to chop items, to a rhythm game where ingredients are added to a skillet or the heat is adjusted at precisely the right time. If the player makes a serious blunder or time expires without sufficient progress being made, that step in the cooking process is considered a failure. When this happens, a graphic of an angry "Mama" with flames erupting from her eyes is displayed, along with the caption "Don't worry, Mama will fix it!".

Completing a dish can require playing one minigame, or as many as a dozen. The player's performance is rated when each dish is finished, based on the average result of each minigame. Depending on the final score, the game may award the player a bronze, silver or gold medal. The highest medal earned for each dish is recorded and displayed next to each item on the selection screen.

The Cooking Mama use soft colour in majority, including soft pink, peach, green, yellow, orange and blue, with dark colour in minority, including black and dark brown. The colour of the food and the character use the soft colour, while the dark colour function as the outline colour. The image of food appears with depth with the use of shading in darker soft tone of the main colour. The use

of shading makes the food looks more alive and have three dimensions (3D) even it is only 2D (two dimensions). The combination of the abundance light colours and accentuated dark colours within this proportion makes the food and characters easy to recognize.

The character appears light and cheering with the usage of bright colour and happy expression. The food appears with their natural colours so it closed to the real food. The food also came with many variations so it's avoided the boring sense. The usage of the bright colour, many variations and happy expression rise the appetite.

The cooking process needed some steps. The preparation will need peeling, chopping, or pounding. The cooking need stirring, mixing, blending, kneading or waiting for a certain time. The methods of cooking could be frying, baking, or steaming. The instruction for all the steps of cooking is clear. The movement could be in circular motion for example while stirring, ups and down for example while chopping, or shaking while blending. The audience can enjoy all the process and the result.

A certain skill is needed to play the Cooking Mama. For examples when the garlic or onion need to be chopped, it required the ups and downs and also the circular motion in order to make the ingredients finely cut. Another example is when the ingredient already in cooking steps, the speeds of stirring should be in the right movement so the food won't spilled from the pan. The order of the adding spices and ingredients were also needed to be watch carefully and in the correct amount. The interactive experience came from the movement of preparing, cooking, checking timing and seeing the meal ready to be judge.

A brand-new pixel art restaurant simulator based on the Touhou Project. The gamer/user will play as Mystia, the owner of a small izakaya. Collect ingredients by day, cater to the customers by night, learn recipes from familiar characters, and become the best izakaya owner in all of Gensokyo. The player takes on the role of Mystia Lorelei as she operates her food cart, serving alcohol and izakaya food. During the daytime, the player collects, purchases and prepares cooking ingredients and fulfils quests for NPCs (Non-Playable Characters); during the evening, the player cooks food for patrons as they visit Mystia's establishment, with the goal of maximising earnings.

The Touhou use soft colour in majority, including soft pink, peach, green, yellow, orange, white, cream and blue, with dark colour in minority, including dark brown and dark purple. The colour of the food use natural colour of the food, while the characters use the soft tone pink colour as the main colour, while the dark colour function as the outline colour. The image of food appears with depth with the use of shading in darker soft tone of the main colour. The use of shading makes the food looks more alive and have three dimensions (3D) even it is only 2D (two dimensions). The combination of the soft colours and dark back ground makes the food and characters easy to recognize.

The character appears light and cheering with the usage of bright colour and adventurous expression. The food appears with their natural colours so it closed to the real food. The food also came with many variations so it attracts the player. The usage of the bright colour, many variations and happy expression rise the appetite.

Touhou movements is different with Cooking Mama even they are the same categories (2 dimensions). Cooking Mama need the player to move the stylus with a certain direction, while Touhou player need only to click the certain icon for the preparation, cooking and serving steps. A certain skill is needed to play the Touhou. For examples the time for cooking needed to be watch carefully, the sequence of order must be correct as well.

Genshin Impact is an action role-playing game that features an anime style open world environment and an action-based battle system using elemental magic and character switching. Action role-playing games emphasize real-time combat where the player has direct control over the characters while still having a focus on character's stats in order to determine relative strength and abilities. The term "action role-playing game" may also describe action-adventure games, which include a mission system and role-playing game mechanics.

Cooking is a Crafting Method players can use to create Food and process ingredients at stoves. When a player first learns a new dish, they must become proficient in making that dish by

manually cooking it perfectly a certain number of times before being able to auto cook it. Manually cooking requires the player to stop the cooking timer when the indicator is in the correct position.

The Genshin Impact use the natural colours of food, including yellow, green, brown, red and pink, with green as background colour. The contrast of the natural food colour with fresh green makes the attractive appeal to the audience.

The character appears light and cheering with the usage of bright colour and happy expression. The food appears with their natural colours so it closed to the real food. The food also came with many variations so it's attracted the audience. The combination of the bright colour, many variations and happy expression rise the appetite and adventurous sense.

To move the character or to start the cooking process, the player need to click the icon and follow the direction given along the way.

A certain skill is needed to play the game. For examples the time for cooking needed to be watch carefully, as when the player clicks the timer perfectly it will result with better quality food result.

Recipes and assets sketches

Although this game is based on Indonesia, the game offers recipes from the east and west part of the world. And it should be worth noted that most of Indonesian dishes are quite difficult to make, not just using salt, pepper, and garlic to season the food but also using other spices or herbs like: nutmeg (pala), candlenut (kemiri), lemongrass (sereh), galangal (lengkuas), ginger (jahe), turmeric (kunyit), coriander (ketumbar), and many more. With that many kinds of spices or herbs, it is quite hard to select, whether to slice or dice, and how to cook it to make one dish, apart from just to fry for example fried egg (telur ceplok). With that in mind, most of the Indonesian recipes will be on the intermediate to expert level in the game, some will be on the easy level.

All recipes were made by using calculations using tables. On the prototype, the game will be showing seven types of ingredients and the player can combine two, three, even four ingredients to make a recipe or dish. Another note to mention is the prototype will show only the beginner level, and as it was said in the previous paragraph regarding the difficulty, that most of Indonesian recipes will not be shown in the game. However, all the lists of the calculations are available in the recipes chapter next recipes.

Creating a main character might seems easy, but it is actually more complex than just make a face and clothes, because it also requires what type of personality the character does so that it aligns with the story of the game. Making a choice of the gender is also not easy, but based on the data of the participant, boys tend to buy foods more than the girls, as the girls would sometimes cook the food if they have long enough time to prepare it. For this purpose of the game, the personalities would be set that the character will be willingly to learn about anything aside from the school/university subjects.

As can be seen from the previous page, there are three alternative candidates for the main protagonist/character for the game, and more sketches/poses to know about their personalities so to speak. All of the illustration has been sent/introduced to the participant/people to see which one is their favorite or suitable for the game. In summary, the people voted for the first and the second character as they can sense the story can be written for just an ordinary guy when fitted with just shirt and shorts. And also, the research and story came with an implicit message that boys can cook as well for their survival in their school period.

And so, the two characters were developed in pixelated which was the style the game is using, and can already see the problem, the 2nd character bangs is too difficult to draw in pixel style drawing, and with the glasses, it will be more difficult to add details such as that. With that it just left us with one choice, the first character, and the participant agree/approve to make hum as the main character. Thus, born a character named "Alam". A direct translation from Indonesian for 'Nature' in English.

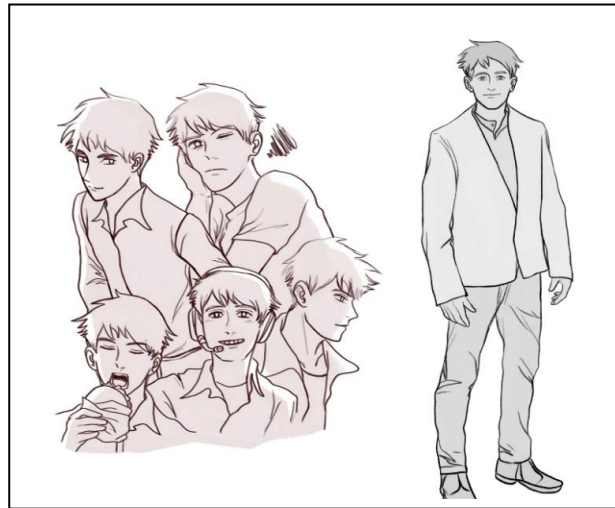


Figure 1. The main character name is “Alam”.

Visual Design Implementation

This chapter will show all of the results from previous chapter, including character ‘Alam’, the dormitory or as the game called it ‘Kos-kosan’, Assets such as furniture inside the dorm, the food, and extras assets for menu or settings in the game prototype.

Games assets and illustrations

All of illustration were done in pixel style as the participants said that the style was endearing and when they looked at the current assets, they immediately reminded of the ‘Minecraft’ and ‘Stardew Valley’, and it was well received by all of them.



Figure 2. ‘Alam’ in Pixel style and a shot from the cut scene at the beginning of the game/prototype.



Figure 3. One of the illustrations for the cutscenes.

CONCLUSION

The conclusions from the research results will be presented and the discussion in the previous chapter. Then, suggestions will also be given which is based on the results of the conclusions. Suggestions in the results of this research are expected can be useful for college students and several parties as input or basis decision making related to the development for both the paper and the prototype game. In this day, many people especially young adult such as college student or young worker are using food delivery application to obtain their meal instead of cooking because of busy from work or school working on assignments. They admitted did that not only because it is simple, but because the price is usually cheaper because of variant discounts to use. Not only that, the data showed that the participants are usually skip breakfast as well which is not recommended to do. The paper intention was to encourage the young adults to change their so called "usual habit life" into more "healthy lifestyle" by using digital media. Because although is cheaper, we do not know the condition of the restaurant or shop is, it could be dirty and the ingredients may not fresh by the time they cook it, or simply because it is a fast-food restaurant. All of the participants are a gamer, and agree that they usually play their game in daily time, thus born the medium of the digital media, is through video game. All of them agree that pixel-styled games are endearing or to as they like to call it 'cute' and like it because of the retro feeling of the game to play. Now, to answer the question on the 1st chapter, the answer is: Yes, you still need the ability to cook all by yourself, because not only is home cooked is definitely healthier, if you try it and succeeded you don't have to worry about getting food. And also, to make your own creation of delicious foods because you are already know the principal of cooking and ensure the future if anything happens, you know how to, and maybe get to share it to other people who need help, for example, by making a content about cooking fundamental in any media.

This research was conducted with some limitations, including, having bunch of participants and components, such as having it done with qualitative research in order the data can be more in-depth to analyze. Therefore, there are limitations to this research. So it is recommended that in further research, apart from using qualitative, this research can use other method like quantity, and having more people to participate in this research so that the results of this research are stronger, as well as in the way the researchers calculated them to make a more accurate prototype of the game.

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