

DIGEST

POLITEKNIK METRO Kuantan

5/2021



TOURISM & HOSPITALITY DEPARTMENT
POLITEKNIK METRO Kuantan
KEMENTERIAN PENGAJIAN TINGGI MALAYSIA

DIGEST

POLITEKNIK METRO KUANTAN

5/2021



**KUMPULAN PENYELIDIKAN DAN INOVASI
DAN KUMPULAN PENERBITAN**

POLITEKNIK METRO KUANTAN
KEMENTERIAN PENGAJIAN TINGGI MALAYSIA

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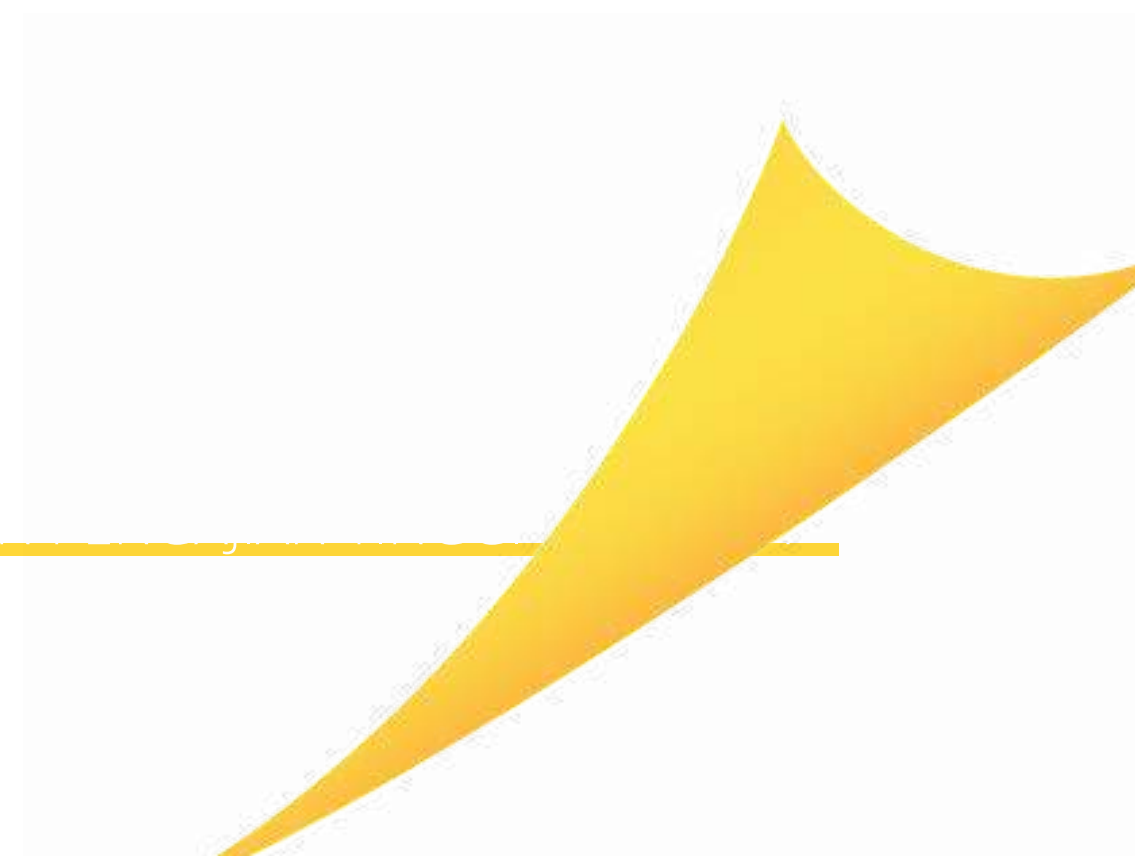
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Perpustakaan Negara Malaysia
Cataloguing-in-Publication Data

Politeknik METrO Kuantan. Jabatan Pelancongan dan Hospitaliti



Politeknik METrO Kuantan would like to express our sincere gratitude to those involved in producing this book.

DIGEST PMKu 2021

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PREFACE



Alhamdulillah, thanks to Allah S.W.T because with His bounty, Digest Politeknik METrO Kuantan 5/2021 has been successfully published. First of all, I would like to congratulate the Digest PMKu 2021 implementation committee, Research, Innovation and Commercial Unit and all the lecturers who have contributed their energy and hard work to the creation of this book.

This book is published with the aim of fostering a culture of scholarly writing, information sharing and expertise in the field among academic staff. The production of this book provides a space for the final student project supervisor to highlight the writing results from the innovative products that have been produced throughout the implementation of teaching and learning.

This effort can be used as a platform for PMKu academicians to interact and share experiences through studies that have been conducted in the tourism and hospitality field. This approach to some extent helps METrO Kuantan Polytechnic in transforming the National Higher Education.

Finally, it is hoped that through the results of this publication can be fully utilized towards producing creative, innovative and excellent among PMKu citizens.

Thank you.

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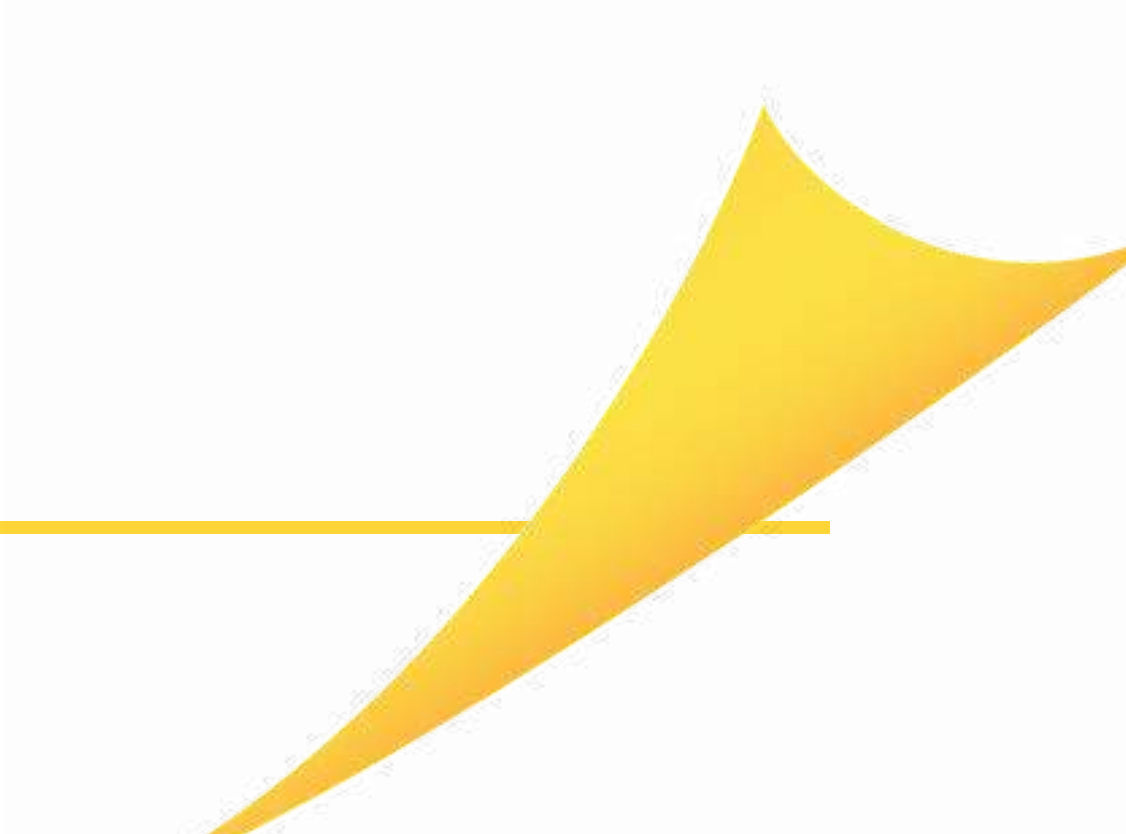
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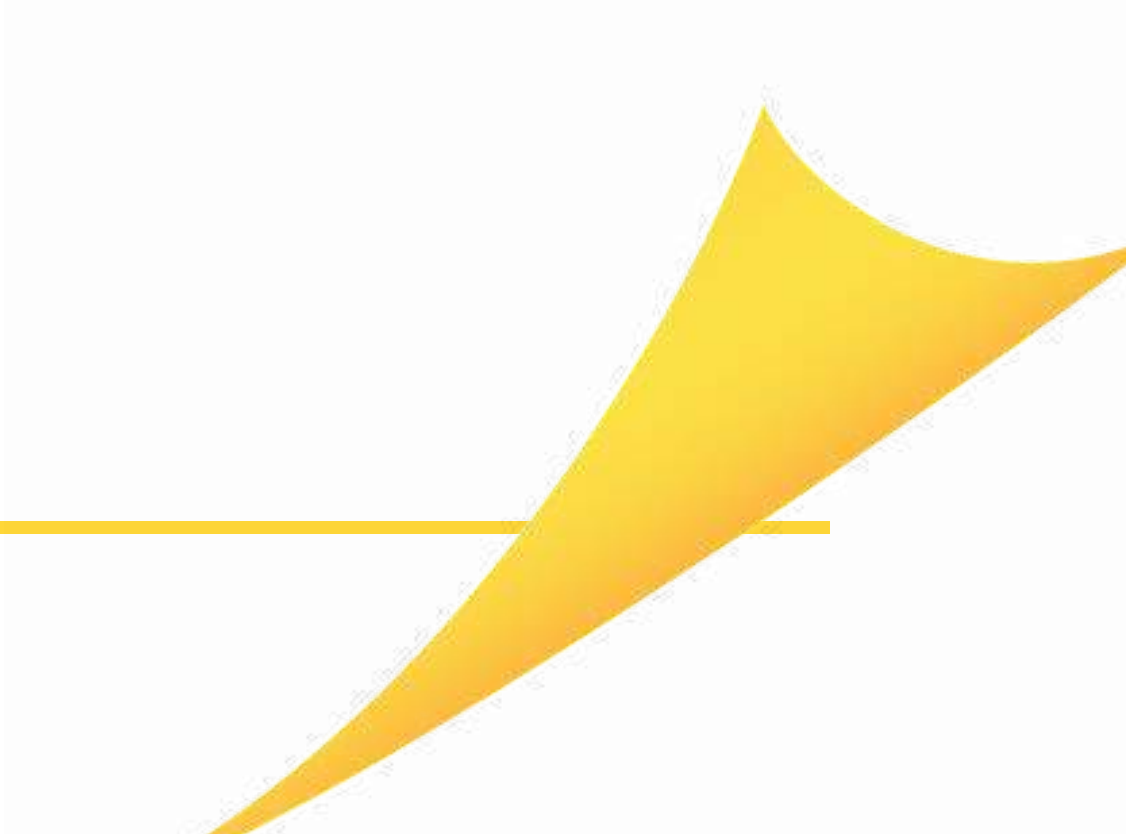
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USER'S PERCEPTION TOWARD THE IMPORTANCE OF AUGMENTED REALITY (AR) BUSINESS CARD TO KAMPUNGSTAY TOURISM BUSINESS

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ABSTRACT

Augmented reality (AR) Kampungstay business card is a tourism innovation product by a group of PMKu final year tourism students. Looking forward to the Kampungstay as a potential tourism product, however, the limited information and lack of promotion toward this program initiate this AR Kampungstay business card. The main purpose of this study is to investigate the user's perception of AR business cards to Kampungstay tourism business. With the quantitative research method, primary data were obtained from 82 respondents via convenience nonprobability sampling. The general finding of this study determined that most users agreed that the AR business card is important for Kampungstay tourism business.

Specifically, the users agreed that AR Business cards (i) played an important role during this new norm tourism business (mean, 4.6220; standard deviation, 0.67842); (ii) positivity impact from AR business card (mean, 4.5854; standard deviation, 0.66576), (iii) good image (mean 4.5488; standard deviation 0.66948); (iv) suggested to apply in all medium of marketing (mean 4.5488; standard deviation 0.72269) and (v) can become an important marketing tool to the tourism business (mean 4.4756; standard deviations 0.77341). The results of this study show that AR business cards may influence future tourism business. The practical implementation of AR business cards depends on the user or consumer perception. With the help of AR, tourism businesses like Kampungstay can work to enhance the consumer experience and convert them into potential guests to their Kampungstay program.

Keyword: Kampungstay; Augmented Reality; Business Card, AR

1.0 INTRODUCTION

Kampungstay is one of the potential tourism products in rural areas. This program is an initiative under the Rural Tourism Master Plan and aims to increase the participation of rural communities in the tourism sector. The implementation of Kampungstay is also a continuation of the Homestay Program in Malaysia (Ministry of Tourism, Art and Culture Malaysia, 2019). Kampungstay is in the introductory stages and needs to be promoted and introduced more widely so that local and international tourists understand the exact concept of Kampungstay.



To work into that direction, a group of PMKu Tourism Project students has collaborated with Desa Murni Kampungstay and develop their innovative product called AR Kampungstay Business Card which is equipped with a 3D sketch of the Desa Murni Kampungstay, owner information, a link to a website, and an automatic call button to owner's number through the application. These innovations were developed and distributed to the public to use and respond to their perception of the innovative products and the importance of Augmented Reality toward the Kampungstay Tourism Business.

Augmented Reality has been the catch phrase of modern technology and is experiencing rapid development and implementation in many industries. Furthermore, according to Han, Jung, & Gibson A., (2014) the end-user point of view has been widely neglected in the development process of AR in tourism. Therefore, this research is conducted in the tourism context which is Kampungstay Tourism Business, and aims to identify and analyze user perceptions toward the importance of AR Business Card.

2.0 LITERATURE REVIEW

Over recent times, AR has become increasingly popular within the travel industry. AR enables hotels and other businesses operating in this field to enhance the physical environments of the destination, including local sights and hotel rooms. By referring to a website, Revfine.com, one of the keys to AR adoption within the travel industry is the difference in consumer lifestyles over the past decade. Modern customers are in the habit of using their smartphones a lot, even when they are travel, so the step towards using augmented reality apps and other purchases is highly used. Travel tends to mainly search items because customers require lots of information before they arrive. AR can ensure this information is available to them all the time and is most relevant.

AR is a reality and computer-generated information environment (Shafaq Irshad & Dayang Rohaya Awang, 2016). With the standard size of a typical business card, it makes it impossible to put more information. Limitation of space makes the information included in a business card is unclear and incomplete and creating confusion to its viewer.

3.0 METHODOLOGY

This quantitative study is in the form of a survey where the primary data is collected through questionnaires using convenience nonprobability sampling. After using the developed AR Kampungstay Business Card, 82 respondents handed their feedback via the given Google form link. The questionnaire has been categorizing into three parts:

- i. Section A Demographic profile of the respondent
- ii. Section B Respondent knowledge on augmented reality
- iii. Section C: Perception toward the importance of AR Business Card toward KampungStay Tourism Business



The reliability statistical analysis using Cronbach's Alpha for this questionnaire instrument item shows excellent reliability with the value of 0.926.

4.0 FINDING

The purpose of the survey was to investigate if the users think implementing augmented reality in Kampungstay business cards is crucial. Table 1 demonstrates the results of our questionnaire obtained using SPSS software. With descriptive statistics analysis, below are the mean and standard deviation score values for 5 items statement regarding the importance of augmented reality in the business card.

Table 1: Descriptive Statistic Analysis with Mean and Standard Deviation Score

Item	Statement : Augmented Reality <i>Kampungstay</i> Business Card	Mean	Std. Deviation
i	can become an important marketing tool to tourism business	4.4756	0.77341
ii	can give good image in market a <i>Kampungstay</i> tourism business	4.5488	0.66948
iii	can give positive impact toward <i>Kampungstay</i> tourism business	4.5854	0.66576
iv	played an important role in tourism new norm	4.6220	0.67842
v	should be applied in all medium of marketing for tourism business	4.5488	0.72269

Meanwhile, the demographic profile of the respondent is in below table:

Table 2: Demographic Profile of Respondent

Item	Frequency	Percentage (%)
Gender		
Male	29	35
Female	53	65
Age		
18-23	44	54
24-29	6	7
30-35	13	16
36-40	11	13
≥ 41	8	10
Race		
Malay	74	90
Chinese	4	5
Indian	3	4
Sikh	1	1
Education		
Doctorate Degree	3	4
Master Degree	2	2
Bachelor Degree	32	39
Diploma	33	40
STPM	3	4
SPM and equivalent	7	9
Other	2	2
Employment Status		
Employed for wages	39	48
Self-employed	7	9
Out of work and looking for work	4	5
Retired	3	4
Student	29	35



5.0 DISCUSSION

This study was found to be consistent with the previous research by Eleanor, M. Claudia, & Paraskevi Fountoulaki in 2020 when the users acknowledge the AR business card can help in the tourism business. Respondents agreed that AR plays important role in tourism new norm with the highest score of mean value, 4.6220, and the standard deviation, 0.67842. They accept that AR Kampungstay business card can give a positive impact on the Kampungstay tourism business (mean score, 4.5854 and standard deviation, 0.66576).

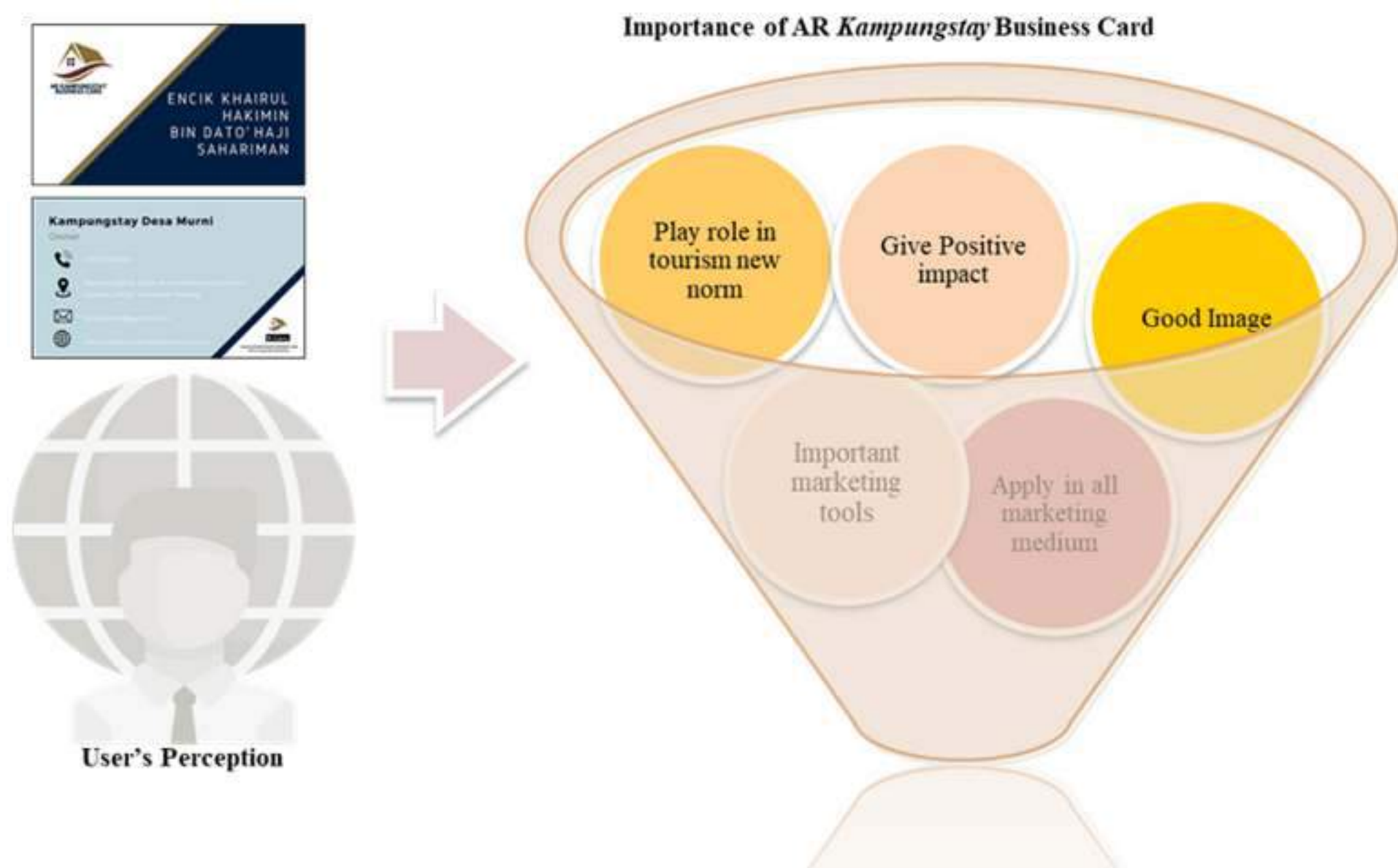
Moreover, it is reliable with the studies done by Shafaq Irshad & Dayang Rohaya Awang in 2016 and Troshin A.S., Sokolova A.P., Ermolaeva E.O., Magomedov R.M., & Fomicheva T.L. (2020) who notice AR is a new technological solution that allows the development of new tourism products and gives lots of positive impact in the tourism business. In a website specializing in AR, ARYEL.IO explains how AR business cards can take our networking to the next level and states that AR makes traveling safer, convenient, and engaging for travel agencies and hotels, helping attract new customers. It complies with the respondent perceptions as users of AR Kampungstay business cards. They admit that AR can give a good image in the market for Kampungstay tourism business (mean score, 4.5488 and standard deviation 0.66948) and it should be practiced in all mediums of marketing for tourism business (mean score 4.5488, and standard deviation 0.72269). AR Business Card is also agreeable to become an important marketing tool to tourism business (mean score 4.4756 and standard deviations 0.77341).

6.0 CONCLUSION

This study has deliberated on the user's perception regarding the importance of AR business cards to Kampungstay Tourism Business. This study reveals that the users agreed that AR Business cards played an important role during this new norm tourism business. They realize the positivity from this new technology too. AR Kampungstay business cards also give a good image, suggested to be applied in all medium of marketing and can become an important marketing tool to the tourism business.

The results of this study demonstrate that AR business card may influence future tourism business. The practical implementation of AR business card depends on the user or consumer perception. With the help of AR, tourism businesses like Kampungstay can work to enhance the consumer experience and convert them into potential guests to their Kampungstay program.

Figure 1: Summary



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BITTER MELON BISCUIT

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ABSTRACT

Bitter Melon Biscuits is ready to eat for all consumers and low calories than other biscuits. Bitter melon provides health benefits to various diseases to improve quality of life. Bitter melon has a strong bitter taste that makes consumers reluctant to eat it. It is also less palatable to eat alone whether as ulam, medicine or juice. There also no bitter melon-based biscuits product in Malaysian market. Objective of this study is to identify the best method to produce Bitter Melon Biscuits and to examine the consumer's acceptance level of Bitter Melon Biscuits. Based on the study, 96.5% respondent are willing to eat bitter melon-based product. Bitter melon based products has potential to commercialization. For sensory evaluation, 69.8% like the biscuits aroma/ smell, 86% like the taste of the biscuit, 70.9% respondent find the colour of the biscuits are moderately brown, 90.7% like the texture of the biscuits. 86.1% respondent like the overall acceptance of the biscuit. The data shows the consumer can accept the taste of the bitter melon biscuits. The price of Bitter melon Biscuits is affordable, has a good characteristic and appearance. However, Bitter melon powder takes a long time to make. For future research, it is recommended to produce variety of flavours for bitter melon biscuits. Besides that, by having modern technology to make bitter melon powder, it can shorten the time for making the powder.

1.0 INTRODUCTION

Bitter melon known as Momordica Charantia in scientific name belongs to family of Cucurbitaceous and known as one of the bitterest fruits. Bitter melon widely grown in South Asia, Southeast Asia, China, and the Caribbean. Bitter melon is usually consumed cooked within the green or early yellowing stage. The fruit is extremely bitter raw and may be soaked in cold water and drained to get rid of a number of those strong flavours. Bitter melon can be used as a healthy biscuit especially for vegetarians and people who want to maintain health.

The word 'Biscuit' springs from the Latin words 'Bis' (meaning 'twice') and 'Coctus' (Meaning cooked or baked). The word 'Biscotti' is also the generic term for cookies in Italian (Dr. Jigna Chandra Kant Thrived et al., 2016). Biscuits possess several attractive features including wider consumption base, relatively long time period and good eating quality (Banureka and Mahendran, 2009). Wheat flour is that the main ingredient for biscuit production, though imported; it's a carbohydrate-based food staple and also lack some



nutrients. In many countries, biscuits are prepared with fortified or composite flour to extend their nutritive value (Hasmadi et al., 2014).

The objective of this research is to identify the best method to produce Bitter Melon Biscuits and to examine the consumer's acceptance level of Bitter Melon Biscuits.

2.0 LITERATURE REVIEW

2.1 Bitter Melon

Momordica Charantia is a valuable plant, belongs to the Cucurbitaceae family, it is commonly known as bitter gourd, balsam pear, bitter melon, kugua or karela (Habicht S.D et al., 2010). The plant lives up to its common name "bitter melon" or "bitter gourd", as all parts of the plant including the fruit taste very bitter (Aminah A et al., 2011). The whole plant, especially the seeds and fruit, have significant pharmacological effects, for instance, it's been utilized in the treatment of diabetes since past, and still plays a crucial role within the prevention and remedy of diabetes in many developing countries (Virdi J et al., 2003). Momordica Charantia is an annual, slender climber herbaceous plant that has bright-green colour and lobed leaves with small flowers in yellow colour. The fruit size ranging 2-7 cm long and has a resembling feature of a cucumber, oblong and green but with large smooth warts (Upadhyay A et al., 2015). (Wang S et al., 2017) reported all parts of Momordica Charantia plant are bitter especially when the fruit is ripening which turns from green to orange-yellow. Despite its bitter taste, it is consumed traditionally for its beneficial health effect.

2.2. Biscuits

Biscuit are often defined as a little baked product made principally of flour, sugar and fat (Manley, 1998). it's different from other baked products like bread and cakes as biscuit has low moisture content. Its moisture content is typically but 4% and thus it's long time period, perhaps six months or longer. Biscuit is one among the oldest commonly consumed non-fermented baked snacks. Biscuits are anytime munching breakfast or snacks item. it's a fast hunger satisfying food (G. Mounika and Srinivas Maloo, 2018). Biscuits possess several attractive features including wider consumption base, relatively long time period and good eating quality (Banureka and Mahendran, 2009). Wheat flour is that the main ingredient for biscuit production, though imported; it is a carbohydrate-based food staple and also lack some nutrients. In many countries, biscuits are prepared with fortified or composite flour to increase their nutritive value (Hasmadi et al., 2014).

2.3. Ingredients of Bitter Melon Biscuits

Wheat flour is the main ingredient for biscuit production because it is a carbohydrate-based food raw material and also lack some nutrients (A. I. Peter-Ikechukwu et al., 2018). Wheat flour is used to prepare bread, produce biscuits, confectionary products, noodles and vital wheat gluten (Pawan Kumar et al., 2011). Sugar consists of a molecule known as sucrose and is a sweet substance. Sugar, which interacts with all major ingredients, is also the most essential ingredient in bakery products. Sugar also has hygroscopic properties, which means it grabs moisture and holds it on. Manohar and Rao (1997) and Pareyt et al., (2009) reported increasing sugar content reduces hardness of the dough, as well as the



development of gluten.

Eggs are an economical yet highly nutritious food that offers balanced nutrients that influence human health (Miranda JM et al., 2015). Eggs are a nutrient-dense, rich source of highquality protein, and bioactive compounds (such as lutein and zeaxanthin) (Andersen CJ et al., 2015). Derek Williamson (2017) noted that baking powder is a mixture of powdered compounds added to dough or cake mixture to make it rise in cooking. It is used as a substitute for yeast in bread-making.

Margarine is a butter substitute produced by a process called hydrogenation from vegetable oils that have been solidified. The method may be fully hydrogenated, allowing the oils to solidify, or partially hydrogenated, depending on the form of margarine, causing the semisolid oils to be lighter and more spreadable with more water, carbohydrate and protein stabilizers. It is also applied to colorings, flavorings, milk solids and salt (Jacqueline B. Marcus MS et al., 2013). Almonds are a piece of the prunus family, which are rich wellsprings of mono-and polyunsaturated unsaturated fats and are generally acknowledged as a nutritive nourishment for a few advantages (Puri A et al., 2000).

3.0 METHODOLOGY

3.1 Introduction

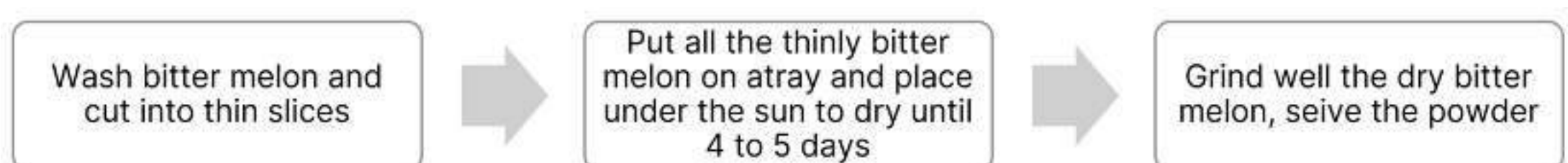
The data was collected to address the research objectives. This study was conducted quantitative method which the data are collected from questionnaire. This study adopted a survey research, which has been designed to identify the best formulation to produce healthy biscuits from a mixture of bitter gourd for consumers. Besides, this study also sought to examine the consumer's acceptance of bitter melon biscuits. So, this research is done in order to identify consumer's acceptance and to ensure that this product can be commercialized.

3.2 Research Instrument

The research instrument that will be used in this study is questionnaire in google form. As to be line with the research objectives of this study, all questions were carefully constructed and we will provide sample of the product to be tasted by all respondents. The questionnaire is divided into three, section 1 is demographic, section 2 is respondent's knowledge about bitter melon and last section 3 is about sensory evaluation. The section 3 is using 5-point hedonic scale method.

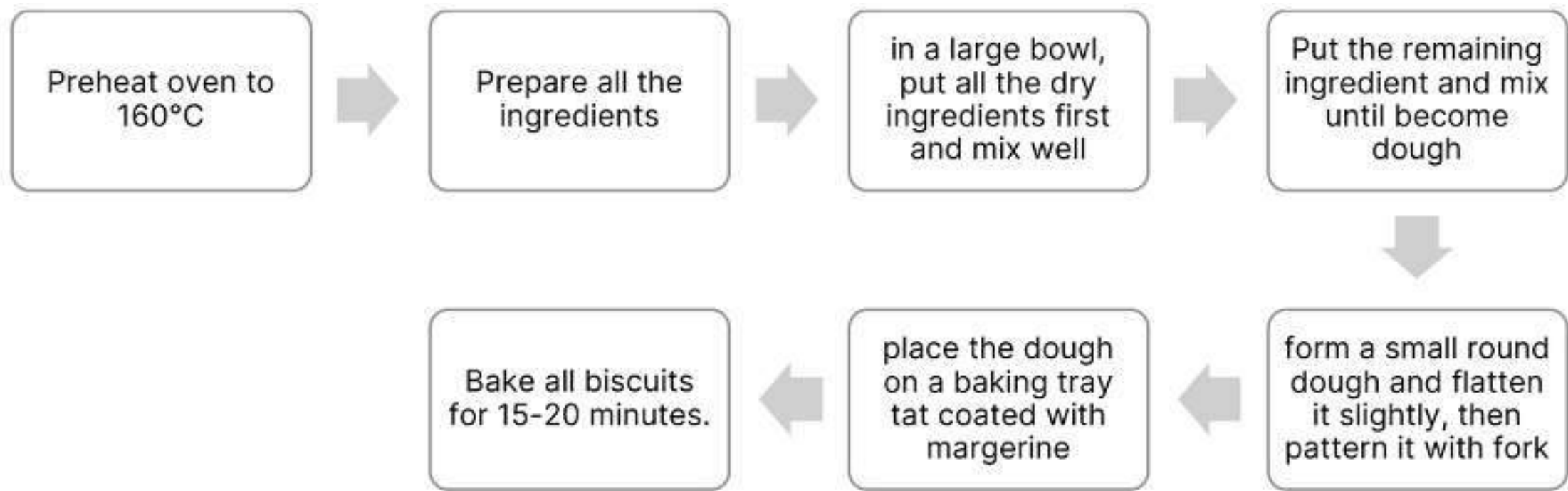
3.3 Product development

3.3.1 Treatment of Bitter Melon Powder





3.3.2 Production of Bitter Melon Biscuits



4.0 FINDING

Table 4.1 Respondent’s knowledge about Bitter Melon

Item	Percentage (%)
Do you know bitter melon is	
Yes	90.7
No	9.3
Do you know that bitter melon has a bitter taste?	
Yes	83.7
No	16.3
Are you willing to eat bitter melon based products?	
Yes	96.5
No	3.5

Table 4.2 Sensory evaluation

Item	Likert scale (%)				
	Dislike Extremely	Dislike moderately	Neither Dislikes or liked	Liked moderately	Liked extremely
Aroma/ Smell	0.0	2.3	27.9	64.0	5.8
Taste	0.0	5.8	8.1	67.4	18.6
Colour	0.0	10.5	18.6	70.9	0.0
Texture	0.0	1.2	8.1	77.9	12.8
Crispiness	0.0	0.0	3.5	86.0	10.5
Aftertaste	0.0	2.3	17.4	66.3	14.0

5.0 DISCUSSION

The process of bitter melon powder which took a long time to make. But if there is a technological facility it may be easier. In addition, a discussion of pricing and the ability to be competitive. With positive comments from consumers, we are confident that these biscuits can be sold in the market widely, moreover the price of our products is very reasonable and affordable. Through the results of this study, suggestions and improvements that can be made for Bitter Melon Biscuits is to make a variety of flavors for these biscuits to be more attractive for all consumers to buy. Besides that, by having modern technology to make bitter melon powder like food drying machine, it can shorten the time for making the powder. Product acceptance may take time in order to create awareness among public that this biscuit suit their taste. With these recommendations, maybe this product can be the best product within the time being.



6.0 CONCLUSION

In conclusion, these Bitter Melon Biscuits are a new product that is not available in the Malaysian market. By mixing bitter melon powder with other ingredients of biscuits is an appropriate method and make these biscuits more nutritious. Besides that, the ingredients of this product are easy to find and the price also affordable for people to buy it. Overall, most consumers can accept and like the taste of this biscuit. So, we can expect that this biscuit will be able to increase consumption and at the same time popularize bitter melon in the Malaysian market. Lastly, we hope peoples can fully support our products and give encourage for us to improve our biscuits and maybe this biscuit can be their favorite biscuits one day.

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CALOPOLY BOARD GAME

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ABSTRACT

A healthy diet is important to supply nutrients, reduce risk of disease and to manage certain diseases. Most of the youths especially students are often live unhealthy life such as unhealthy eating habits and stay indoors. Formal presentations such as talks or seminars are not well received by people especially students. The objective of this research is to create an educational board games to improve the understanding on nutrition focusing on calories especially student. This game focuses on calories intake and educate students on taking a balanced diet. This research identified the level of understanding by using the educational board games through acceptance test, interview and observation. Playing Calopoly Board Game board games can enhances self-confidence. It is a perfect opportunity to connect and open up, it is also help students develop stronger senses of individually when they can do different types of exercises at the same time burn their calories. It is one of the greatest things that Calopoly Board Game can be played anywhere and anytime. The design and spaces for Calopoly Board Game can be improved to be sold in the market. The educational board game can be produces with the different subject, design and packaging

1.0 INTRODUCTION

A healthy diet is important to supply nutrients, reduce risk of disease and to manage certain diseases. About 8.1 per cent of the adult population in Malaysia, or 1.7 million people, have all three risk factors for diabetes, hypertension, and high cholesterol, the main non-communicable diseases. The overeating weight epidemic does not only affect individual alone. It has an impact on government spending as well. According to a study by the Economist Intelligence Unit on Obesity in Asian countries, our government spent RM4.26 billion and RM8.53 billion in 2016 to tackle obesity and weight related issues. According to Prof. Dr. Mohd Nasir Hashim (1992), the best way to practice nutrition by ensuring a balanced diet that is obtained from the meal takes on breakfast, lunch and dinner. Self-awareness is the first step towards prevention. The amount of nutrients such as protein, fat and carbohydrate within the food contributes to the calories. Therefore, awareness of healthy and balanced nutrition needs to be further enhanced in the community especially students.



Board games is one of them (Muslabat,2012). According to some researchers, board game is a tool that provides hands-on and heads-on skill and knowledge development for people of all ages on all subjects by providing visual metaphor to help connect information (Treher and Elizabeth, 2011). Formal presentations such as talks or seminars are not well received by people especially students, thus contributing to the decrease in the percentage of public awareness on balanced nutrition. Several campaigns to raise awareness among Malaysians have been held, unfortunately, we still lack awareness of the consumption of calories and sugar, especially for young people. This lack of calorie awareness contributes to excess intake that can result in weight gain.

2.0 LITERATURE REVIEW

2.1 Introduction

Calorie means energy that has been processed in the food and drinks inside. It is natural for every life that needs the energy to be fully functional, without it our body will felt weak, and eventually we will die from hunger. However, there is an average of calories that the human body needs to stay healthy. For a man, it is 2500 calories and 38 grams of sugar per day to maintain their weight and for the women is 2000 calories and 25 grams of sugar, but there is some researcher quoted that according to the United States government, the average man needs 2,700 kcal per day and the average woman needs is 2,200 kcal per day. Having too many calories inside our body is bad and may cause obesity-related disease. One gram of protein or carbohydrate gives us four calories each. Fat, on the other, gives us nine calories per gram. Depending on the ingredients of the food, the calories can easily add up.

In traditional teaching most of the class time is spent with the professor lecturing and the students watching and listening. The students work individually, and cooperation is discouraged. On the other hand, active learning changes the focus of activity from the teacher to the learners, in which students solve problems, answer questions, formulate questions of their own, discuss, explain, debate during class; moreover, students work in teams on problems and projects under conditions that assure positive interdependence and individual accountability. Although student-centered methods have repeatedly been shown to be superior to the traditional teacher-centered approach to instruction, the literature regarding the efficacy of various teaching methods is inconclusive (Azzalis & Sato, 2016).

2.2. Concept/Theories

A deck-building game is a card game or board game where construction of a deck is a main element of gameplay (Simon, 2020). It is similar to collectible card games in that each player has their own deck. A dedicated field of research into gaming exists, known as game studies or ludology (Jonathan, 2020). While there has been a fair amount of scientific research on the psychology of older board games (e.g., chess, Go, mancala), less has been done on contemporary board games such as Monopoly, Scrabble, and Risk. Much research has been carried out on chess, in part because many tournament players are publicly ranked in national and international lists, which makes it possible to compare their levels of expertise (Gobert & Fernand, 2018).



The works of Adriaan de Groot, William Chase, Herbert A. Simon, and Fernand Gobet have established that knowledge, more than the ability to anticipate moves, plays an essential role in chess-playing. Linearly arranged board games have been shown to improve children's spatial numerical understanding (Simon & Daniel, 2017). The other example is bluffing games are another straightforward type of board game. These games involve some sort of deception from players and hidden information. This is another mechanic in board games that is usually not the main focus of the game but a secondary tool used in the game (Jonathan, 2020).

2.3. Preliminary study

Gamification of concepts makes learning interesting as well as easier. When you are a beginner of learning in any field, you do have that initial scare of dealing with something new to you. With the help of games designed on a concept, the learners achieve the comfort level. (Manpreet singh, 2020) Many games provide educational elements, but regrettably, there is no board game that provides knowledge of calories that has been made. Most food games are for amusement only and for children, as the game does not provide calorie intake information.

There has plenty advantage of playing board games. Playing board games can increase brain function and exercise for brain. More playing can stimulate brain areas that are responsible for memory formation and complex thought processes for all ages. Engaging in play assists in practicing essential cognitive skills, such as decision making, higher level strategic thinking, and problem solving (Megan zander, 2019). Playing board games teaches how to set goals and be patient. Winning takes strategy and patience. In a happy environment these things are learned in a stress-free and challenging.

Furthermore, playing board games enhances creativity and self-confidence is a perfect opportunity to connect and open up; it also helps to display a creative side of personality in non-intrusive ways, which can be beneficial for quiet individuals. Board games are an amazing tool for student. Playing helps them to develop stronger senses of individuality and creativity. This leads to greater self-esteem and a feeling of being included and noticed (Megan zander, 2019)

3.0 METHODOLOGY

3.1 Introduction

The use of the board game as an economic simulation exercise designed to spread the knowledge on how the calories intake effect our health especially to students. This study using quantitative approach which is the process collecting and analysing data. Hence, this study is focus on get feedback from students Polytechnic Metro, Kuantan. Data collection process is the process of collecting data and information gain from respondents. In this research, data will be collected through acceptance test, observation and interview.



3.2. Research Instrument

The design of this study is guided by the ADDIE model. The ADDIE model is a design model that serves as a guideline towards the construction of needs -based learning software and teaching materials, Jamalludin et al (2001). This model involves 5 phases as follows:

RESEARCH INSTRUMENT	EXPLANATION
Analysis phase	The phase of analysis is the first and the foundation of the other phase and is the most important aspect. This analysis would focus solely on developing the board games with correct information about types of food and calories intake.
Design phase	This board game is inspired by the game of monopoly. This product will be modified and improved, including game instructions.
Development phase	This board game developed. The game will be transformed into nutritional knowledge.
Implementation phase	This is the stage where the production and testing has been conducted. This board game played by 4 players.
Evaluation phase	The goal of this phase is to determine whether the project has met the goal which is to spread awareness and education about calories intake to the students and to collect feedback for the improvement of this project to further the efficiency and effectiveness of the project.

4.0 FINDING

4.1 Acceptance Test

Acceptance Test	Likert scale (Percentage)				
	Strongly Disagree	Disagree	No Option	Agree	Strongly Agree
I choose food based on food pyramid	2.5	2.5	0.0	47.5	47.5
I know that underweight and overweight is according to BMI	0.0	0.0	0.0	47.5	52.5
I know that calculating calories on each menu for breakfast, lunch and dinner is the amount of calories I take for whole day	0.0	12.5	12.5	45.0	30.0
I know physical activities will affect my calories	0.0	0.0	2.5	42.5	55.0
I choose menu based on my calories that I should take everyday	2.6	7.7	35.9	35.9	17.9



Comment of the respondent:

- i. I can do many different types of exercise during the game. Good Job!
- ii. I have fun with my friends and feel good because this game was so challenging during calculating calories every time to maintain my BMI.
- iii. As a student, it's kind of therapy for me to release tension. TQ
- iv. This is very educational and can be options for the future, Intelligent and brilliant!
- v. This is very well made educational board game.
- vi. I love this kind of board game, easy and interesting to play with friends and family members.
- vii. Good board game. Recommend
- viii. This makes me know about calories and how to calculate my BMI.

4.2 Observation

Respondents need a time to think during this game because we include with calculating calories. For winning this game, they must get stable calories for their body because every time an avatar moved for second step or third step, respondents need to add calories from the menu that already have on the board into their BMI to calculate their calories again. This board game includes with 15 different exercises that can help prevent excess weight gain or help maintain weight loss. When respondents engage in physical activity, they burn calories. It is so joyful and delighted than just stay at the same place and play till end because this game, the more respondents intense the activity, the more calories can burn. Other than just playing digital game, this kind of board game also helps associated with feeling happy, less stress and even less physical pain. Respondents will not feel boring during the game. The board games to improve communication are not limited. This is a skill that can easily be transferred to many leadership opportunities. It's often a space where asking questions is encouraged as everyone learns differently and in order for everyone to have combined great experience it's better when everyone understands. The most important part of our board game is fun. Excellent communication between players so that each and every person can have a good time playing the game.

4.3 Interview

Respondents understand calories can help them make educated decisions about their exercise and Body Mass Index (BMI). After playing the game, respondents get to know more from the three macronutrients such as carbohydrates, fat and protein. Respondents know calories in their body burn to maintain itself will help them plan diet and exercise better. When determining their calories needs, consider whether trying to lose, maintain or gain weight and get more confident to calculate their calories after this. For example, losing one pound of body fat is equivalent of burning 3500 calories

So if they either burn or cut out 500 calories to get good BMI. They get to do many different of exercise during the game, at the same time can burn their calories. Respondents get more knowledge to add protein in their breakfast because protein will help feel full longer. Protein also helps support lean body mass which will help increase their Body Mass Index (BMI).



5.0 DISCUSSION

After obtaining the required data and information through questionnaire that has been provided as well as the information obtained through the online Google Form. The data is then analyzed until a summary can be generated. Statistic describe the level of acceptance of Calopoly Board Game users. From the data we collect that directly leads to product improvements. Through a deep understanding of our player's behaviour. In this role, players play a game through each stage, testing different moves and techniques to discover any problems or inconsistencies with the product also improve board game models.

Due to the pandemic, the number of respondent are decreases because of Corona Virus (COVID 19), the respondent cannot be gathered in large quantities. The questionnaire are given after the respondent played the board game. The demographics of the respondents. 40 respondents involved in this study, namely 12 (30%) males and 28 (70%) females. It was found that female respondents were higher number of respondents compared to male. This tells us that female more attractive with Calopoly Board Game and perform the best when they use this game.

Respondents give positive and acceptance of Calopoly Board Game. Playing board games enhances self-confidence. It is a perfect opportunity to connect and open up, it is also help students develop stronger senses of individually when they can do different types of exercises at the same time burn their calories. It is one of the greatest things that Calopoly Board Game can be played anywhere and anytime. The shortcomings we will improve to a better design and spaces for board game. So this product can be sold in the market because in this data shows many say like to play next time.

6.0 CONCLUSION

In conclusion, with the creation of Calopoly board games, consumer will know the important of calories intake to our body. Besides that, this Calopoly board games also teach us to be health and taking care of food intake and with the Calopoly board games we can give an awareness to society especially student who are still lack of knowledge about calories. More than that, Calopoly also teach us about healthy life. This product has great potential for educational games because of Calopoly boards games can teach the consumer about calories and the important of consume food based on food pyramid. The recommendation that we widely acceptance is improve the design and spaces of the board game also the packaging. We also suggest if anyone want to make a board games like this, try to vary with the different subject, design and packaging.



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ASIAN ESSENTIAL DRIED HERBS

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ABSTRACT

An innovation of Asian dried herbs consist of three herbs which are Vietnamese coriander “daun kesum”, parsley “daun sup” and turmeric leave “daun kunyit”. The inspiration for the product in order to give a new breath of Malaysian herbs, and it is Asian Essential Dried Herb. By using both of traditional and new technology to preserved the freshness, aroma, taste, and make it suitable for all Malaysian cuisine. Asian Essential Dried Herbs uses evaporation method where it’s evaporate the water from the leavesto maintain the pungent aroma,same freshness and taste just the same as the fresh herbs. Thus most importantly Malaysian Dried Herbs product will make people daily life become easy because the shelf life can be can extend until 2 years in room temperature and prepare plenty of dishes hassle free. The data were collected of 110 respondents age 18-40 through online questionnaire. Most of the respondent satisfied with Asian Essential Dried Herbs usage in their daily life which makes cooking hassle-free and preserved the dried herbs for longer period of time thus results in decreased the wastage of unused herbs.

1.0 INTRODUCTION

In Malaysia, vietnamese coriander, parsley and turmeric leave are used in many type of Malaysian cuisine for instant Masak Lemak Cili Api, Asam Pedas, Rendang, Singgang, Laksa, and Laksam. The usage are not only as a cooking ingredient hence traditional remedies also use this Malaysian herbs as an alternative way to cure diseases.

Vietnamese coriander also known as Daun kesum is a type of shrubby plant that is often used as a flavor enhancer in dishes such as laksa, asam pedas or salads. Vietnamese coriander is rich in beta carotene, vitamins A & C as well as minerals such as potassium, calcium and phosphorus. In addition to its aroma that can stimulate the appetite, this herb can reduce the fish smell.

Celery leaves or Daun sup arenormally used as flavoring and garnishing yet itcontains lots of benefits. According to the study celery leaves can reduce high blood pressure by consuming it as tea. In addition parsley are best for digestive system and it can reducetoxins in the body.



Turmeric leaves is also another famous types of kitchen herbs that cannot be separated from Malay cuisine. Nowadays, only a few people know or understand about the benefits of turmeric leaves. Turmeric leaves themselves are widely used in South Asia. According to a nutritionist from Bangalore, India the benefits of turmeric leaves come from its antiseptic and anti-carcinogenic properties. Moreover turmeric leaves is to improve the digestion of the body. Turmeric leaves consist of antioxidants and anti-inflammatory curcumin in turmeric which can help prevent recurrences of indigestion, such as flatulence.

1.1 Problem Statement

1. The busyness of working mothers makes it difficult for them to find the fresh cooking ingredients and even complicated for them to think how to keep it fresh for a long period of time.
2. The fresh green herbs are commonly easy to damaged, withered, shirk and turn black make it a waste because they can no longer be used and become a problem if the ingredient is needed immediately.
3. Climate change caused crop infertility and result in supply cuts.

1.2 Objective of Study

1. Easier for working moms to prepare meals and store the ingredient without wastage.
2. Reduce waste of raw materials.
3. Ensure supply of Malaysian herbs are always available in the market even though it is out of season.

1.3 Research Question

1. What is the consumer acceptance level of Asian Essential Dried Herbs?
2. How long is the shelf life of Asian Essential Dried Herbs?
3. Will this product change in terms of the original taste and colour?

1.4 Significant of Study

From research, Asian Essential Dried Herbs give benefits to everyone from younger to elderly because it makes easier for consumers to enjoy cooking. The product is suitable for workers, travelers, campers, and restaurant owners as well. This product are suitable to be use at anytime and anywhere. Moreover no preservatives were added in the herbs. In addition, consumers do not have to spend a lot of time to buy fresh herbs yet it does not affects the taste and flavor after it dried.

Based on the group research Daun Ketumbar, Daun Kunyit and Daun Sup are essential ingredient in cooking hence the innovation of the product to the whole new level based on the shape and texture. Added to strengthen the point, Asian Essential Dried Herbs are well received and may get high demand from all kind of consumers based on age, race and gender.

Asian Essential can be added to cooking such as Laksa which can speed up cooking time especially the preparation time. Consumers does not have to waste a lot time to prepare dishes.



2.0 LITERATURE REVIEW

Asian Essential were essential and recommended in preserving and improving the qualities of the product purposes such as extending the shelf-life, inhibiting of product's spoilage, minimizing thermal stress as well as retaining aroma compounds (Hossain et al., 2010; Kubra and Rao, 2012; Dirim and Caliskan, 2012).

Some of the health effects attributed to herbs and spices include antioxidant, anti-microbial, and anti-inflammatory. Spices and herbs are: "aromatic vegetable substances, in the whole, broken, or ground form, whose significant function in food is as seasoning rather than nutrition".

2.1 Concept

Using the Asian Essential Dried Herbs is a great way to reduce sodium, sugar, and fat in healthy diet while adding bold new flavors as it says in International Journal of Research and Review (2017). Herbs are traditionally defined as any part of a plant that is used in the diet for their aromatic properties with low nutritional value. However, more recently, herbs have been identified as sources of various phytochemicals, which possess powerful antioxidant activity.

Based on Journal of Functional Food in 2015 states that spices and herbs are excellent sources of antioxidants and have a long history of safe usage. Since it uses a drying process, the ingredient is not contaminated by chemical preservatives and it is definitely safe for consumption.

According to Peters, Polsky, Stark, Zhaoxing & Hill (2014) dried herbs and spices are shelf-stable due to their low water activity. In the process the amount of water in the herbs were evaporated by the heat from oven. In this era of globalization, many more open-minded human beings make the acceptance of women to create careers accepted in society. "Time is gold" therefore to make it easier for working women makes the objectives a success. Asian Essential Dried Herbs will make it easy for many cooks, travelers, women to cook without getting worry.

2.2 Preliminary Study

Evaporation drying method chosen instead of freezing drying where in this drying process the water content in the herb evaporated by heat and the absence of water content in the leaves makes it last longer and not quickly damaged it is found herbs goes through the drying process does not decrease the quality and nutrition of the herbs.

To ensure mobility, cost saving, convenient thus saving the earth Ziplock Paper Bag was chosen and it contains less than 40% or plastic while it is safe, hygiene and durable in multiple situation.



3.0 RESEARCH METHODOLOGY

3.1 Research Design

Exploratory research is conducted when enough is not known about a phenomenon and a problem that has not been clearly defined (Saunders et al., 2007). It does not aim to provide the final and conclusive answer to the research questions, but merely explore the research topic with varying levels of depth.

On the other front, an explanatory study sets out to explain and account for the descriptive information. So, while descriptive studies may ask 'what' kinds of questions, explanatory studies seek to ask 'why' and 'how' questions (Grey, 2014). It builds on exploratory and descriptive research and goes on to identify actual reasons a phenomenon occurs. Explanatory research looks for causes and reasons and provides evidence to support or refute an explanation or prediction. It is conducted to discover and report some relationships among different aspects of the phenomenon under study.

As defined in previous section, the main objective of the study is to explore the relationship between industry concentrations with bank performance. To achieve this, it draws statistical, quantitative results and further seeks to provide justifications on the established relationship with qualitative study.

3.2 Data Collection Method

The data were collected using internet questionnaire survey. Quantitative research is based on the measurement of quantity or amount. 110 random respondents were selected and it must get minimum 86 responses answered. The researchers found two data sources to be used in computation of questionnaire data Krejcie and Morgan (1970) table.

4.0 DISCUSSION

Asian Essential Dried Herb inspired can extend and increasing the shelf life of herb where it close to the small quantity of usage. The usage in a plenty type of food but the quantity of usage in small portion has made the product broke before it been use. Then according to their method, this product play the positive and perfect ways to ensure the process start from purchasing until sending the product always hit the perfect and great in quality, maximize the quantity, keep hygiene and clean at all time.

5.0 CONCLUSION

Asian Essential Dried Herb has the potential to be marketed & have customers because of the usage in every day. This has proof by the data analysis regarding the survey to the responses. The highest quantity that contain close to the fresh product increasing the acceptance of the product. Asian Essential Dried Herb also does not contain any dangerous and harmful ingredients that can effect to health and affect to the texture, smell, aroma and quality of product. The design of packaging also make the product can increasing the mobility, and save the earth to follow "Green Earth" campaign.



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DR. FOOD SCIENCE

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ABSTRACT

With this sudden shift away from the classroom in many parts of the globe, some are wondering whether the adoption of online learning will continue to persist post-pandemic, and how such a shift would affect the worldwide education market. This study aim to create a new PdPDT games platform to facilitate students understanding in the field of food science and to identify the effect of gamification in implementation on food science module. This study is based on the application of "Make It" games under the category of education games. The sample was obtained randomly with 70 students from DHF semester 2 and 3. The online survey indicates that most students had encouraging positives attitudes and were motivated to use application games as educational learning. Hence, the data analysis shown DR. Food Science provides students with the opportunity for self- assessment the fun through this application "Make It" and this game was created the benefits get to overall the data showed positive feedback from the respondents who mostly agreed with the stated questionnaire related to Dr. Food Science. Keywords: e-learning games, food science, games & PdPDT

1.0 INTRODUCTION

The popularity of social media applications and social networking sites has increased precipitously during the last decade. From that point, the reason for this rapid increase for teenagers, college and university students are using social media applications to gain global access. Today, students are relying increasingly on information and data that is easily accessible on social networking sites and the internet. This is the reason why students learning skills and research capabilities are decreasing in certain situations, as their engagement with these sites reduces their focus, which causes them to dedicate less time to their studies and results in a decline in their academic performance. In the same ways, as students spend more time on social media they spend less time socializing face to face or in person with other people, and these habits reduce their communication skills.

Switching from modern classroom and face-to-face instructor training to computer-based training in a virtual classroom makes the learning experience entirely different for students. Students with a "traditional" mindset find it difficult to adapt. However, they need to accept the new learning circumstances with an open mind and heart. Understanding the benefits of e-Learning and even discussing them with their peers may change this mindset and better prepare students for online classes. The objective of this study;

1. To create a new PdPDT games platform to facilitate students understanding in the field of food service.
2. To identify the effect of gamification in implementation on food science module.



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2. To identify the effect of gamification in implementation on food science module.

2.0 LITERATURE REVIEW

Educational games are gives us more knowledge to learn through designed with educational task (Murugappan, 2014). The idea of using gamification for learning is not entirely new. In the 1980s Malone did research on what makes video games attractive to players and how these aspects can be applied to education as a means to promote student engagement and motivation (Mastoras, 2016). In the environment of digital and social media, there are more opportunities to engage with people with diverse perspectives and such platforms offer diverse types of information sharing and means of exchanging opinions, ideas, and viewpoints with other people (Nurunnabi, 2021).

Discussed the quick infiltration of progressively refined advances into each feature of society is bringing about noteworthy movements in how, when, and where we work, how people, organizations and even countries comprehend and compose themselves, and how educational systems ought to be organized (Zirawaga, 2017).

Although these studies were related to game based learning rather than gamification, their findings form the core of gamification in education (Mastoras, 2016). Online learning can be termed as a tool that can make the teaching– learning process more student-centered, more innovative, and even more flexible (Dhawan, 2020).

Various types of games can be used in an E-Learning environment. It has designed to teach students user to learn about certain subjects and concept, which support us in learning a skill as they play. (Mr. M.R.M.Veeramanickam & Dr. Mrs. N. Radhika, 2014), Educational games are games explicitly designed with educational purposes, or which have incidental or secondary educational value. All types of games may be used in an educational environment, however educational games are games that are designed to help people learn about certain subjects, expand concepts, reinforce development, understand a historical event or culture, or assist them in learning a skill as they play. Game types include board, card, and video games.



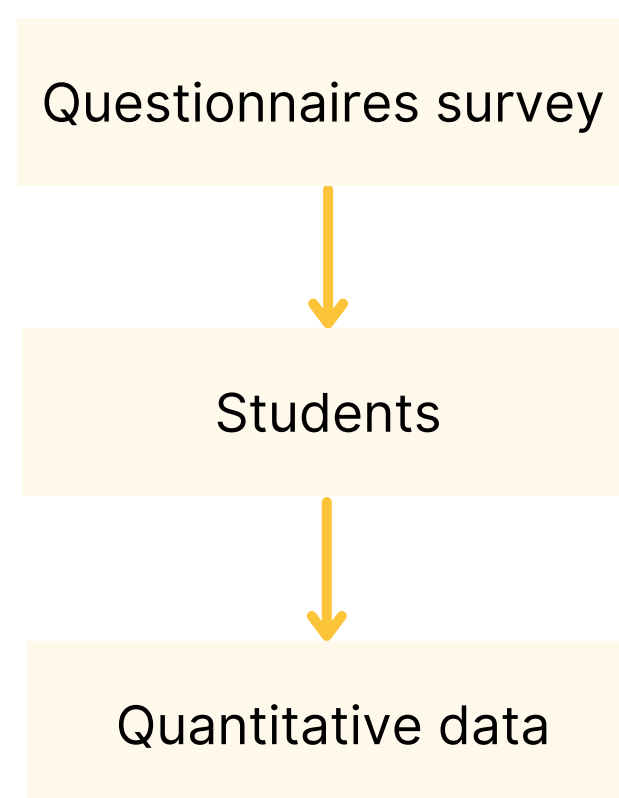
3.0 METHODOLOGY

1

3.1 Product development

This study is related to the application of the game “Make it” in the form of PdPDT in the food science module. This helps students to create learning opportunities, in the same way students can learn in a relaxed and comfortable atmosphere. Also, these new methods given the lecturer produce good learning for students.

3.2 Quantitative / Qualitative / Mix Method (Questionnaire Survey / Interview / Both)



3.3 Instrument Development (Questionnaire)

The instrument used to collect the data was questionnaire in Google form. Thus, the questionnaire was divided into part 1 which is demographics and part 2 the effects of gamification in the classroom. The choices ranges strongly agree to strongly disagree so the respondent can choose on their opinion after playing the games: Likert Scale:

Strongly-5, Agree-4, Neutral-4, Disagree-2, strongly Disagree-1 = 1. (Watts, 1989).

3.4 Sampling

Respondents were randomly selected among DHF student’s semester 2 and semester 3 in Polytechnic METrO Kuantan, Pahang. The population size of sample is 70 students.

3.5 Instrument Development (Questionnaire)

The instrument used to collect the data was questionnaire in Google form. Thus, the questionnaire was divided into part 1 which is demographics and part 2 the effects of gamification in the classroom. The choices ranges strongly agree to strongly disagree so the respondent can choose on their opinion after playing the games: Likert Scale:

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3.6 Sampling

Respondents were randomly selected among DHF student’s semester 2 and semester 3 in Polytechnic METrO Kuantan, Pahang. The population size of sample is 70 students



4.0 FINDING (Data Analysis)

Based on this study, the data was analysed use SPSS.

PROFILE	FREQUENCIES	PERCENTAGE
Age		
18-21	50	71.4
22-24	20	28.6
25-27	0	0
Gender		
Male	15	21.4
Female	55	78.6
DHF (semester)		
Semester 2A	18	25.7
Semester 2B	13	18.6
Semester 3A	19	27.1
Semester 3B	20	28.6
Did you know about GBL (Game Based Learning)?		
Yes	59	84.3
No	11	15.7
Did you think GBL (Game Based Learning) can help to improve your understanding in food science?		
Yes	68	97.1
No	2	2.9
Did you feel GBL (Game Based Learning) is more interesting than doing an exercise on paper?		
Yes	68	97.1
No	2	2.9
Did you think E-Learning games would help your problem when you feel bored in online classes?		
Yes	70	100.0
No	0	0

Table 1: Demographic respondents Polytechnic Metro Kuantan



No.	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	S.D
1.	The games made the learning environment a fun and engaging one	0(0%)	0(0%)	6(8.6%)	39(55.7%)	25(35.7%)	4.2174	61199
2.	The games motivated me to attend class	0(0%)	0(0%)	12(17.1%)	39(55.7%)	19(27.1%)	4.1000	66267
3.	The games motivated me to arrive class on time	0(0%)	2(2.9%)	19(27.1%)	32(45.7%)	17(24.3%)	3.9143	79387
4.	I was more motivated to learn about ELearning food science module	0(0%)	1(1.4%)	14(20.0%)	36(51.4%)	19(27.1%)	4.0429	73101
5.	E-Learning games can help students become proficient and active while taking online classes	0(0%)	0(0%)	9(12.9%)	37(52.9%)	24(34.3%)	4.2143	65702
6.	The total duration of the games was satisfactory	0(0%)	0(0%)	8(11.4%)	40(57.1%)	22(31.4%)	4.2000	62786
7.	I was comfortable with adding the Top-5 level to the food science module	0(0%)	2(2.9%)	16(22.9%)	37(52.9%)	15(21.4%)	3.9286	74836
8.	The discussions about the correct and incorrect answers after every question were satisfying	0(0%)	1(1.4%)	14(20.0%)	37(52.9%)	18(25.7%)	4.0286	72174
9.	I believe that the games have improved my understanding of the covered topics	0(0%)	0(0%)	8(11.4%)	39(55.7%)	23(32.9%)	4.2143	63458
10.	Performing well in the games increased my self-confidence	1(1.4%)	0(0%)	15(21.4%)	29(41.4%)	25(35.7%)	4.1000	83666



11.	I would have prepared and engaged better the game results were translated to actual marks for the module assessment	0(0%)	0(0%)	16(22.9%)	33(47.1%)	21(30.0%)	4.0714	72874
12.	I believe the games have improved my analytical and problem solving skills in terms of developing solutions	0(0%)	0(0%)	9(12.9%)	36(51.4%)	25(35.7%)	4.2286	66314
13.	I wish "Dr. Food Science" were used in other modules	0(0%)	0(0%)	12(17.1%)	30(42.9%)	28(40.0%)	4.2286	72575
14.	I believe that gaming is a valuable use of instructional time	0(0%)	1(1.4%)	14(20.0%)	33(47.1%)	22(31.4%)	4.0857	75648
15.	I found the use of the "Dr. Food Science" intimidating	0(0%)	1(1.4%)	12(17.1%)	36(51.4%)	21(30.0%)	4.1000	72532

Table 2: Online survey exploring the effects of gamification in the classroom



5.0 DISCUSSION

Table 1 mainly show the highest respondent age from 18 – 21 (71.4%), 22 – 24 (28.6%) and the lowest percentage from 25 – 27 (0%). Meanwhile, female respondent is 78.6% and male is 21.4% because Polytechnic Metro Kuantan mostly higher has female students. Respondents consists of semester 2A (25.7%), semester 2B (18.6%), semester 3A (27.1%) and semester 3B (28.6%). Almost 84.3% know about GBL (Game Based Learning). Many respondents agree with 97.1% think GBL (Game Based Learning) can help to improve their understanding in food science.

Accordingly, 97.1% respondent agrees GBL (Game Based Learning) is more interesting than doing an exercise on paper. Furthermore, respondents agree 100% that E - Learning games would help their problem when feel bored in online classes.

According to the Likert scale shown in table 2, respondents mostly agree 55.7% that games made the learning environment a fun and engaging one followed by strongly agree. Respondents were also 55.7% agree the games motivated them to attend class and respondents 45.7% agree that games motivated to arrive class on time. Also, number three 51.4% respondents agree that their more motivated to learn E – Learning food science module meanwhile number four 52.9% agree E – Learning games can help students become proficient and active while taking online classes. Additionally, 57.1% respondents choose agree the total duration of the games was satisfactory.

Half of the respondents 52.9% were comfortable with adding the top 5 level to the food science module. Respondents mostly agree 52.9% that discussions about the correct and incorrect answers after every question were satisfying and this improved the respondents understanding of the food science module. Accordingly, 55.7% respondents believe that the games have improved their understanding of the covered topics and have increased their self-confidence. As their 47.1% agree would have prepared and engaged better the games result were translated to actual marks for the module assessment, 51.4% respondents believe the games have improved their analytical and problem skills in terms of developing solutions with this show students tends to online learning. Surprisingly enough, respondent agree 42.9% if Dr. Food Science were use in other modules followed by strongly agree 40.0%.

Finally, most respondents considered agree 47.1% that gaming is a valuable use of instructional time and 51.4% respondent found the use of Dr. Food Science intimidating.



6.0 CONCLUSION

As a conclusion, DR Food Science provides students with the opportunity for self- assessment the fun through this application "Make It". Furthermore, when this game was created the benefits get to enhance understanding and increase student interest in this food science subject. Thus, with the positive feedback from the respondents we get identify the food science gaming module is easier understood and engage student in learning food science.

Finally, within this research objective successfully with 70 respondents agree Dr. Food Science can be one of new learning materials. Hope with this new formula of website DR Food Science students can studies from online education anytime anywhere especially the hectic lifestyle group like students and lecturer from now on.

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VAK EDU GUIDE SLAUGHTERING

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ABSTRACT

Student learning style i.e. the way a student receives, collects, processes, and reproduces information is different among each other's . The focus of the VAK Edu Guide Slaughtering is to help students Diploma in Food Service Halal Practice understand in their own ways about the fundamentals of halal slaughtering, technology use in slaughtering, application process for halal slaughtering certificate, and the correct procedures of halal slaughtering. Besides, interactive learning methods using VAK Edu Guide are seen to be able to help students easily understand the slaughtering itself. Referring to the respondents' Self-Inspiration Module, 36.7% had a visual learning style, 26.6% auditory learning style, and 36.7% kinesthetic learning style. Based on the study conducted, 97% respondent agree that VAK Edu Guide Slaughtering is more easily to understand in learning process and 94% respondent agree that VAK Edu Guide Slaughtering able to answer all slaughtering questions and information, at once make the Teaching and Learning process more interesting. VAK Edu Guide Slaughtering is expected to help Polytechnic students in particular and individuals who are interested in deepening the slaughtering field.

2.0 INTRODUCTION

2.1 Problem Statement

- The majority of students did not take issue with the issue of slaughtering
- The attitude of students who take it easy also been an impact for the long term has caused this issue to be so common and ignored.
- From the observation, it is found that the lack of materials or reference books related to slaughtering in the form of VAK namely Visual, Auditory And Kinestatic is very limited and difficult to find.
- Reference books on the market today focus more On Writing that makes students not interested in reading.

2.2 Objective of the Study

- Develop innovation in Teaching and Learning to attract students to learn.
- To improve students understanding of slaughtering in a more concise manner.



2.0 LITERATURE REVIEW

- Related topic

The title of slaughtering is a common title for the community and the students know about the Islamic law of slaughtering. Also to explain more fully about this study is by developing a Teaching and Learning innovation briefly to encourage students for more interesting in terms of reading. Nowadays students find it difficult to better understand due to lack of exposure to the topic of slaughtering. The purpose of this study is to ensure that students and the community can understand easily about slaughtering.

- Theory/Conceptual/Model

This book (VAK Edu Guide Slaughtering) is produced to give students an understanding of slaughtering more comprehensively. Through this book, students can expand their knowledge related to slaughtering. In addition, students can apply pure values through the slaughter learned (Ahmad Firdaus, Mohd Noor 2016 November 5). Not only improve students' learning performance but can develop new methods for students through this books. It can also provide long-term effectiveness to students. This book, helps students spend time through books as opposed to spending time through computers and is easily available anywhere in libraries and bookstores, useful for those who cannot afford to use gadgets as their daily reference (Ahmad Marzuki Bin Mohammad).

3.0 METHODOLOGY

- Product Development

This product is create using Canva application because it can facilitate the process of producing a book. With Canva, designing this book is more easily and practically. Everybody can use it. We also put QR codes in this book to access videos and games. To create QR codes we use website qrcode-monkey and to create the game we use wordwall.net website. This book was developed to focus on student learning style that is VAK (Visual, Auditory, Kinestatic).

- Quantitative/Qualitative/ Mix Method (Questionnaire Survey/ Interview/ Both)

This study was conducted using quantitative methods. Respondents were asked to answer all pre-test and post -test questions before and after using the VAK Edu Guide Slaughtering.

- Instrument Development (Questionnaire)

Questionnaires are created from google form and distributed to respondents via WhatsApp applications.

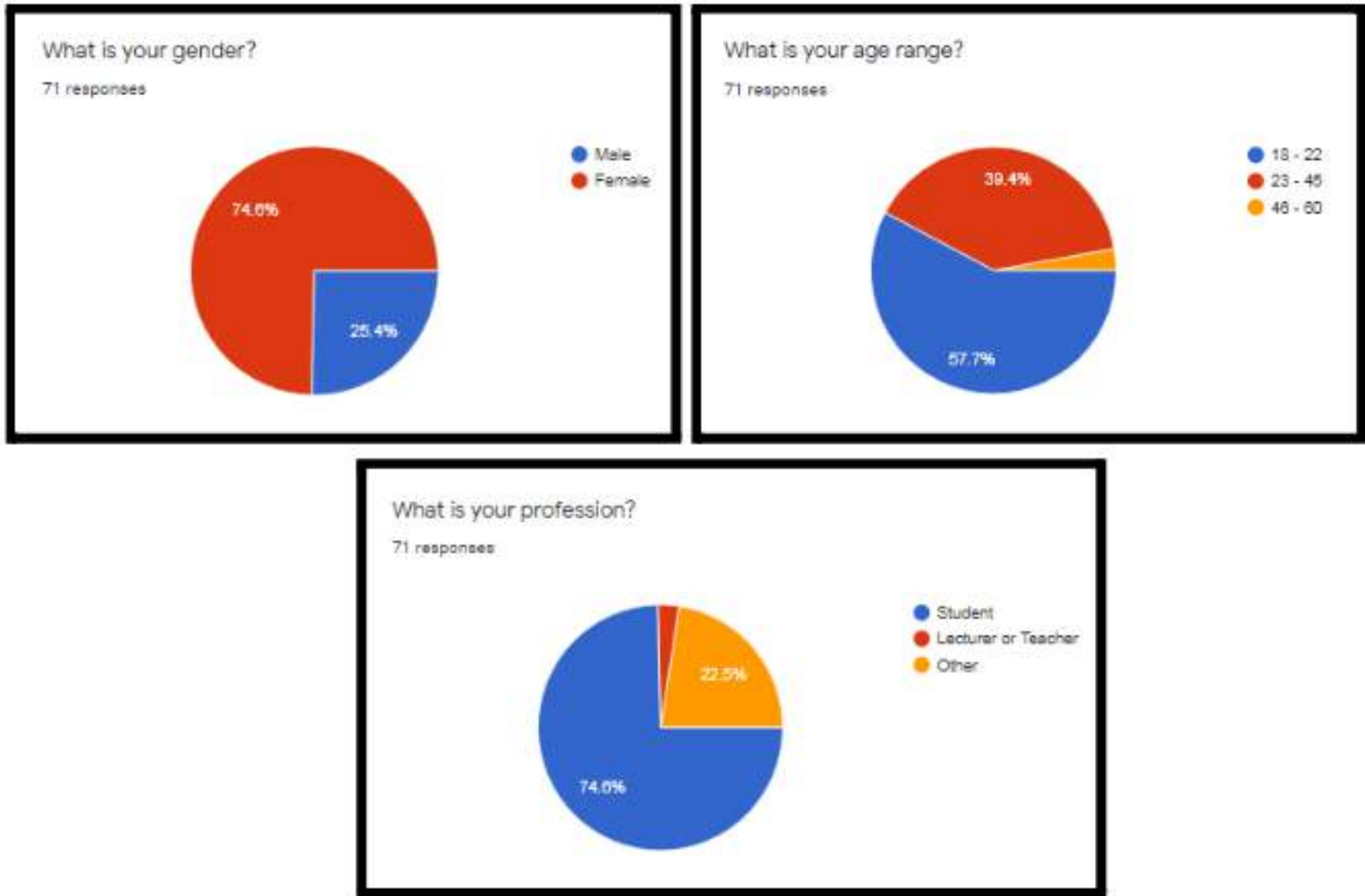
- Sampling

Our target respondent is only from Kuantan Metro Polytechnic (PMKU) students and lecturers. Age target range is 18- to 60-year-olds.

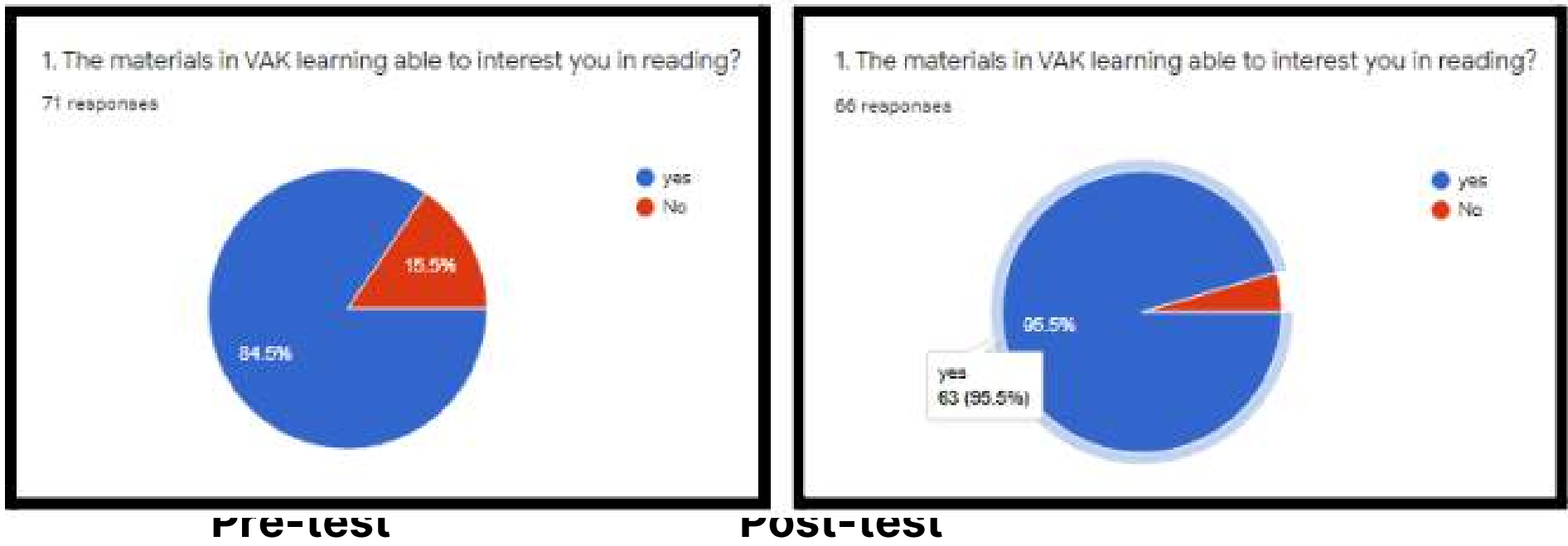


4.0 FINDING (Data analysis)

Demographic Section



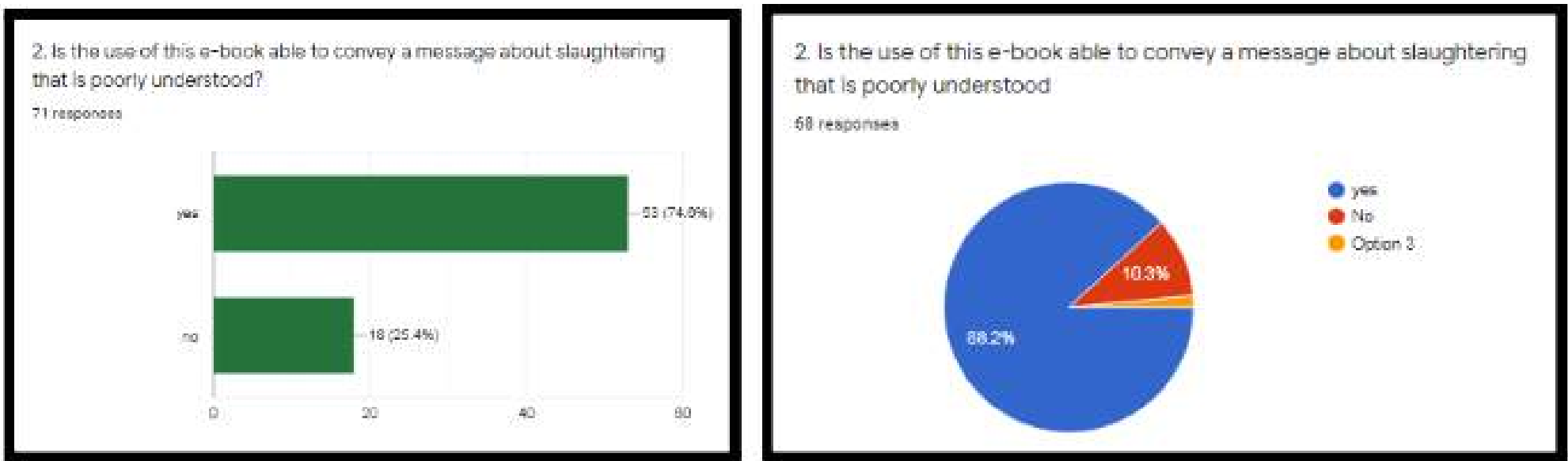
Question 1



Pre-test

Post-test

Question 2

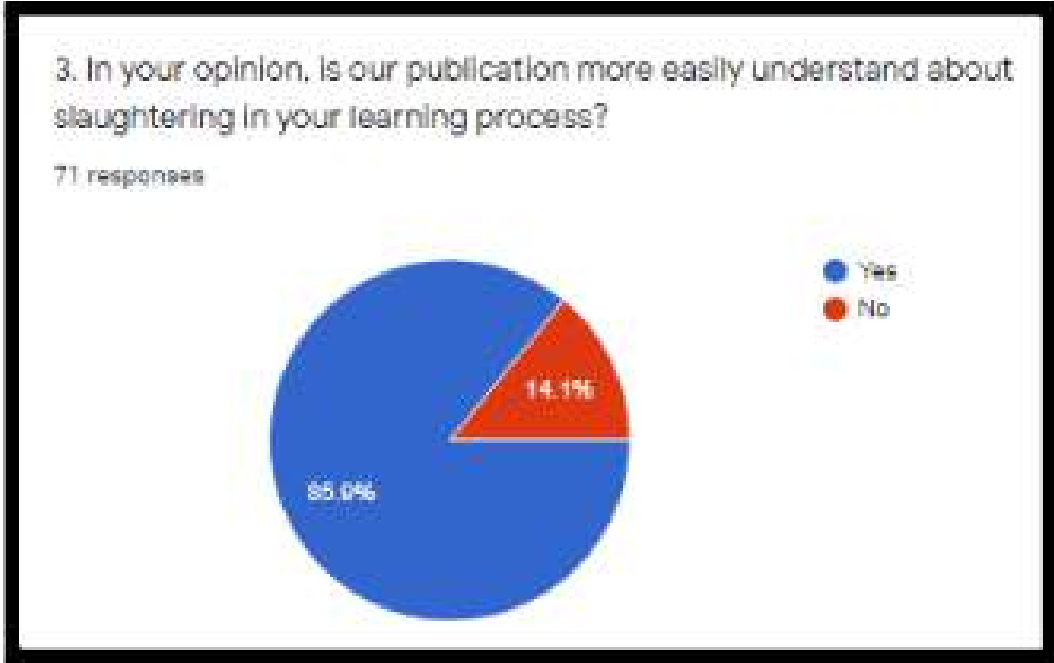


Pre-test

Post-test



Question 3

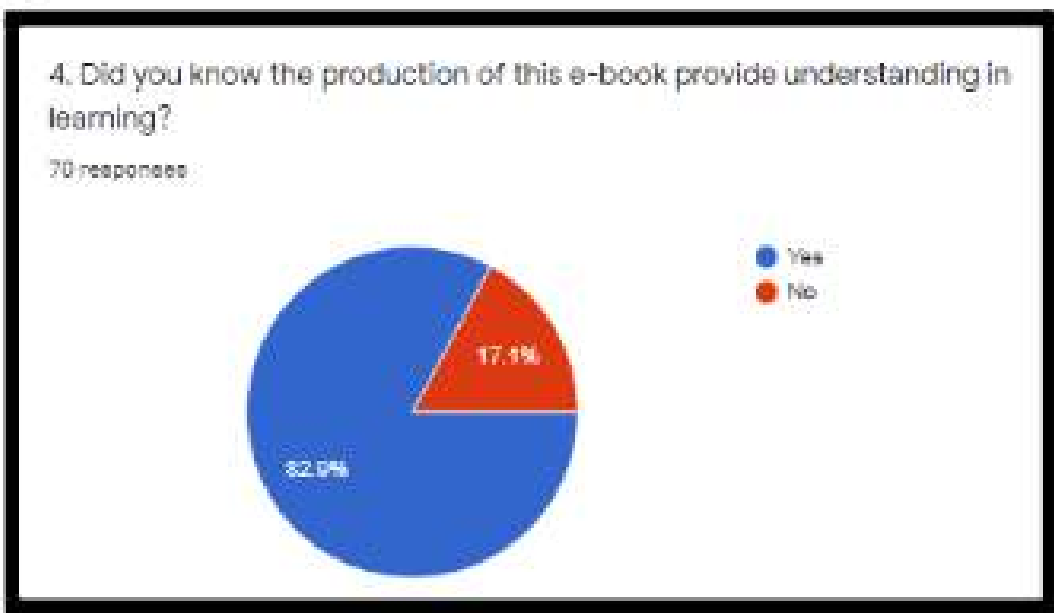


Pre-test

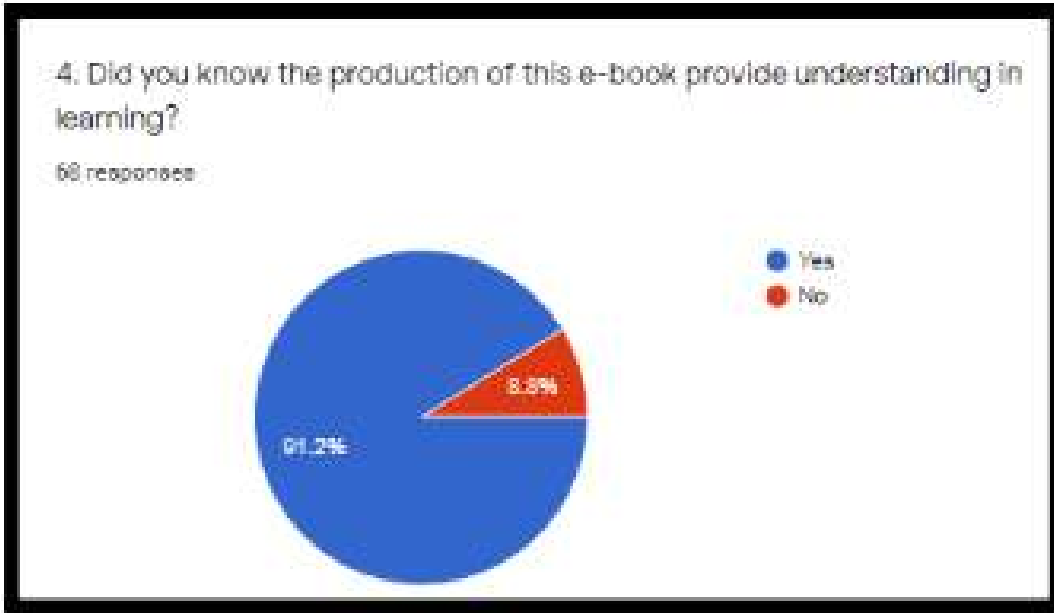


Post-test

Question 4

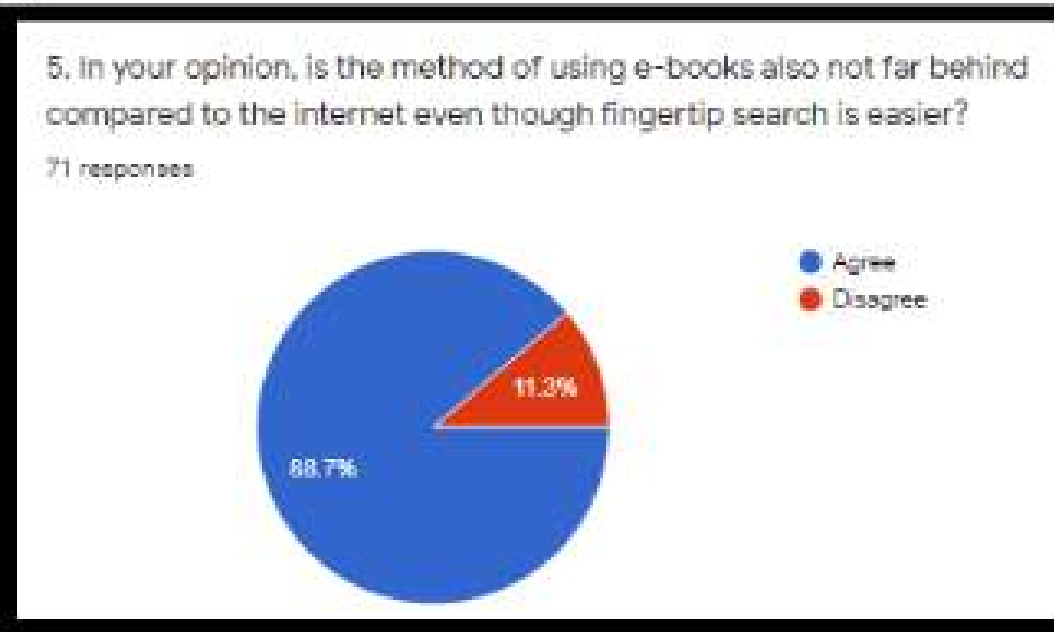


Pre-test

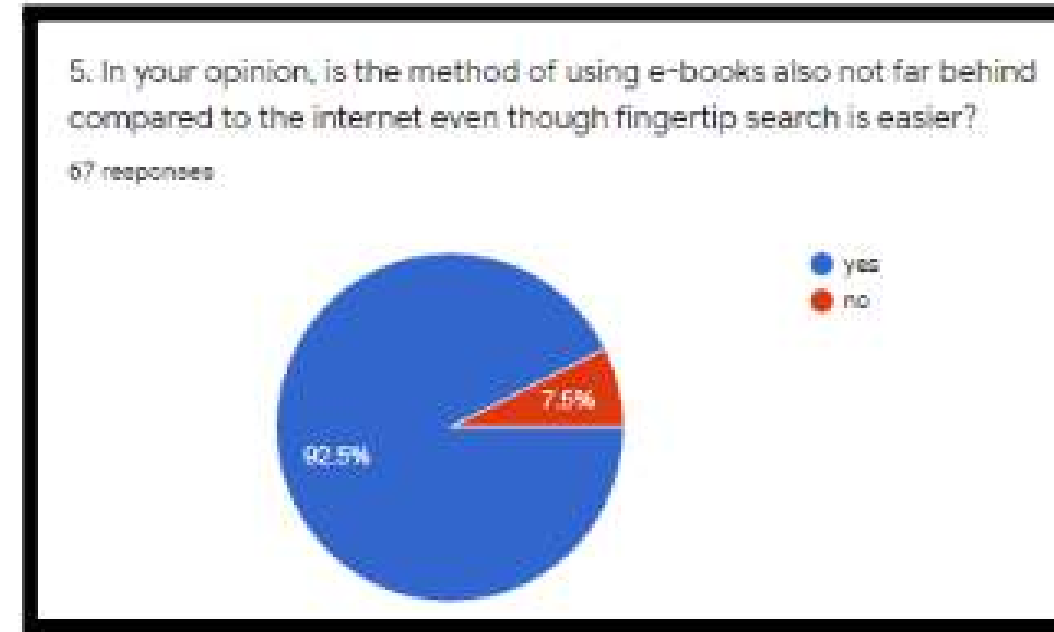


Post-test

Question 5



Pre-test



Post-test

Question 6



Pre-test



Post-test

5.0 DISCUSSION

This study were limited to the use of online platforms only due to covid19. The sample of 70 respondents from various fields are agreed that VAK Edu Guide Slaughtering are helpful to PMKU student in order to be more understanding about slaughtering. This also the right time to use because due to Covid19, Teaching and Learning process happened



online. So, this VAK Edu Guide e-book is easily to use and very helpful in Teaching and Learning process. Later, VAK Edu Guide Slaughtering can be shared among all the polytechnics which are offered the same programme. This study can provide a clearer picture of the effectiveness of the implementation of learning modules through online e-book

6.0 CONCLUSION

In conclusion, VAK Edu Guide will help in Teaching and Learning process and also make student more understanding about slaughtering. This book also provide exposure on the practice of slaughtering which is one of the forms of worship and proof of a person being a servant to Allah SWT.

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"TRAVEL MAT KIT"

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ABSTRACT

The research is to develop a product to all traveler and for the tourism industry in Malaysia and to help tourists who want to travel and facilitate their journey and save their time as well. Travel Mat Kit has gone through many stages in the consultation of ideas, before that idea, a study was done to identify the problems of this product. Based on the study conducted, the data analysed to make the product into a suitable product and fill in the information needed by tourists that traveling in Malaysia. The existence of Travel Mat Kit, tourists can travel freely and easily without worrying about carry a heavy thing during travel and hygienic. Furthermore, this product also to raise awareness about hygiene among the travelers so the traveler doesn't have to share their mat and can help tourists in terms of storage and rest area.

1.0 INTRODUCTION

The product is about innovation from normal sleeping bag to multi function travel mat kit and it will make easier to travel for traveler. Usually a normal sleeping bag usually use for sleep but this travel mat kit is an innovation from normal sleeping bag to multi purpose use sleeping bag by adding extra compartment to enhance the benefit.

The problem statement are tourists always carry extra bags because they want to put necessities in the bag and also to make sure they bring all the necessary travel gear with them. Hygienic issue is also a big issue nowadays due to current disease during COVID pandemic traveler should not sharing their personal things.

Our objective is to create a product that help people to travel more easier and doesn't have to worry to carry things and to raise awareness about hygiene among the traveler so the traveler doesn't have to share their sleeping bag.

2.0 LITERATURE REVIEW

The purpose of making this product is to help tourists or traveler in Malaysia they can travel more easily. As a tourist they might face a lot of problem, for example having to carry a lot of bags to put their basic needs to be used while traveling, sometimes the travelers also miss important items because there are too many bags to carry to travel. Next we also discussed to find a solution to overcome the following problems and we have agreed to



innovate from a sleeping bag that has only one function to be a multi -purpose sleeping bag so they can be more easier and might be a life hacks for the tourist and travelers

The internal dimensions offer limited possibilities to redesign and extend the luggage storage space in order to accommodate a larger baggage. In order to have easy access and to be user friendly, the aim of this paper is to design an external baggage storage system for passenger trains. The system proposed, has a chain transmission and it is designed to accommodate the biggest size luggage commercially available.(Neufert and E. a. Peter, Architects' Data) The storage time for the carry-on luggage and its influencing factors is analyzed in this study. An experiment was conducted in a B737-800 model (1/3 size) to explore the factors effecting the time of luggage storage, and a new effective model of luggage storage time is proposed through a significance test and data fitting. The results show that the age of passengers, the type and quantity of luggage, and the existing luggage in the luggage bin have a significant impact on the luggage storage time; the rule of the variation in luggage placing time is similar between young adult passengers and middle aged passengers; the impact of the existing luggage in the overhead bin on the luggage storage time shows a stable trend in the initial period, but with the quantity of the luggage increasing to a certain point, the luggage storage time begins to increase sharply, which is known as a "jump"; and the luggage type has a great influence on the threshold value of jump. (2020 Elsevier Ltd) A previous study on passengers' opinions regarding luggage storage(Rüger n.d.) showed that 90% of passengers carry at least one piece of either medium-sized or large luggage for long journeys, and that storage space is insufficient to accommodate the luggage of all passengers. Note that medium-sized luggage is between 71 cm (28 in) and 104 cm (41 in), whereas large luggage is 167 cm (66 in). Factors that might affect a passenger's decision to use a train during summer and winter are shown and quantified.It is apparent that a major contributor to the decision-making is the transport of luggage (in the summer or winter). (Lo, L.P., Marinov, M. & Rüger, B. A Qualitative Study on Providing Alternative Solutions for Handling the HSR Passenger's Luggage. Urban Rail Transit 7, 12–28 (2021)) In this study, we propose an alternative methodology of determining the expansion of baggage carousel capacity over a series of steps that includes both a simulation and a cost- benefit analysis. The methodology consists of three stages. In the first stage, we forecast the volume of arriving passengers (excluding transfer passengers) and aircraft traffic with an autoregressive integrated moving average (ARIMA) model. Next, we conduct an elaborate analysis to estimate passenger delay using a discrete event simulation model in which we consider the conveyor load and the baggage carousel allocation to aircraft rates. Finally, we determine a plan to expand baggage carousel capacity that accounts for expansion costs and passenger benefits. Construction and conveyor costs were applied to expansion costs, and capacity expansion leads to passenger benefits due to reduced waiting time. (2014 Elsevier Ltd).

3.0 METHODOLOGY

The data collection method is used to supplying questionnaires to all the respondents. All the collection of data is from the research about the product. The method is also referred as to quantify the problem by way of generating numerical data or can be transformed into usable statistics. The type of information that are collected is from surveys and experimentation to make a comparison between others. The appropriate answers from the data collection are choosing the most useful information or evidence to answer our product.



experimentation to make a comparison between others. The appropriate answers from the data collection are choosing the most useful information or evidence to answer our product.

Our target questionnaire are adventure traveler , backpackers , hiker .Next , the target number for respondent about 30 person because usually adventure traveler will go as group and target respondent is adventure traveler in Malaysia.

The questionnaire will be using scale such as: "Agree", "Disagree", "Very Agree" , "Very Disagree" and Neutral . There will be 2 sections in the questionnaire: Section A for acknowledgment and Section B for product information. This questionnaire is focusing on traveler in Malaysia that tend to travel often and use quantitative method where 30 respondents were selected. Then the outcome of the questionnaire result will be process using questionnaire SPSS 21 version.

4.0 FINDING – SECTION A – DEMOGRAPHIC

Races
30 responses

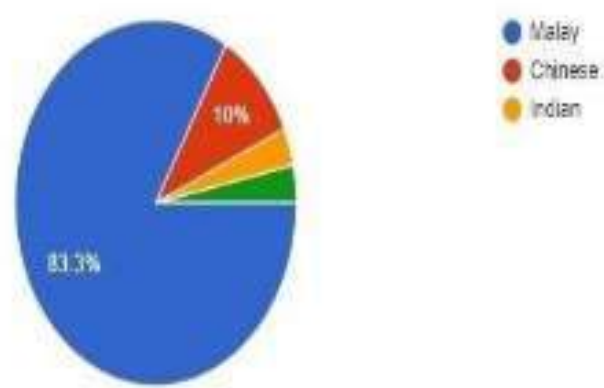


Figure 4.1 : Gender

What is your age ?
30 responses

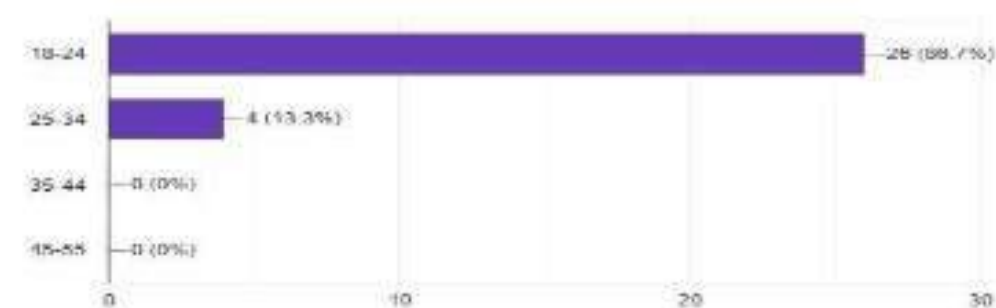


Figure 4.3 : Age

Gender
30 responses

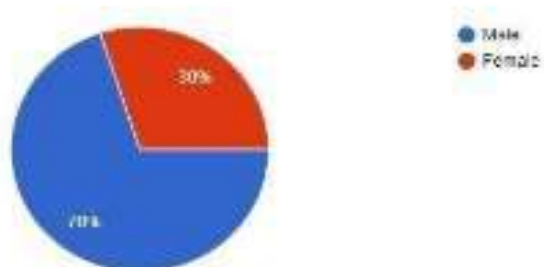


Figure 4.2 : Races

What is your current employment status?
30 responses

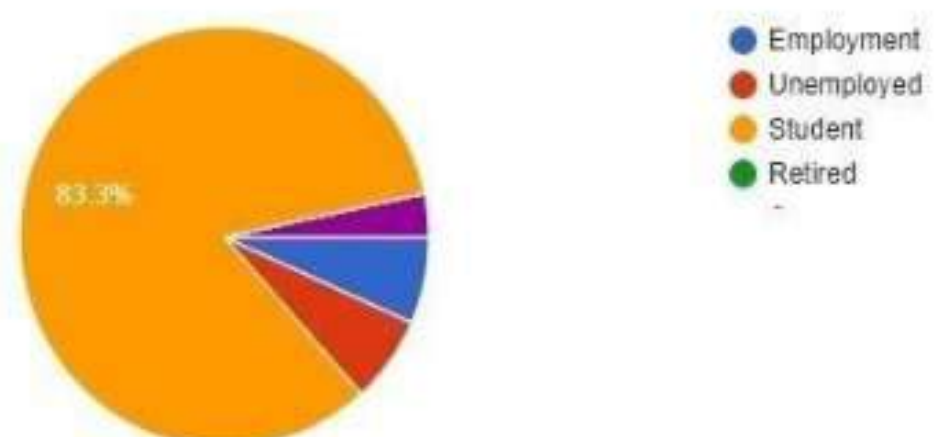


Figure 4.4 : Employment status

Based on the pie chart on figure 4.1, gender of the respondents divided by 70% male and 30% female respondents. As in figure 4.2 above, the highest respondents are Malay, while the lowest respondents is filled by others. Figure 4.3 shows that most of the respondents are in age of group 18-24 years old. Respondents with age 25-34 years old have the lowest number as shown in figure 4.4. Based on figure 4.4. the study find out that most of the respondents were students with 83.3% and no retired person take part in the survey.



Do you think this product is easy to carry?

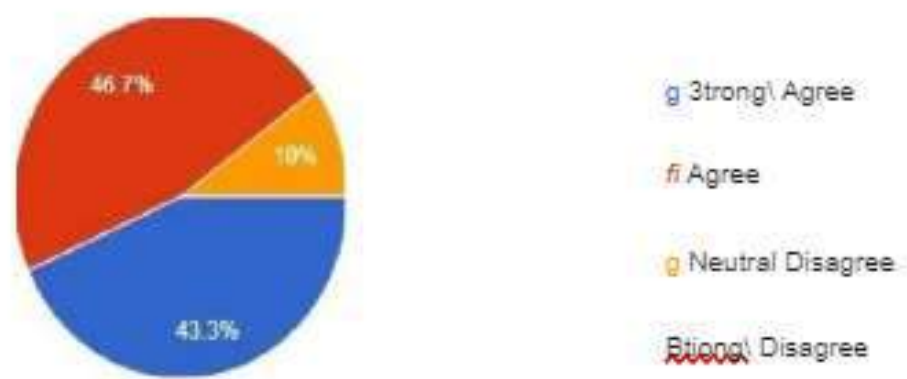


Figure 4.5 : Product characteristics

Based on the figure 4.5 , most of the respondents agree that the product is easy to carry while traveling. 10% of the respondents are neutral and disagree that the product is easy to carry.

Do you think this travel mat kit has enough storage space?

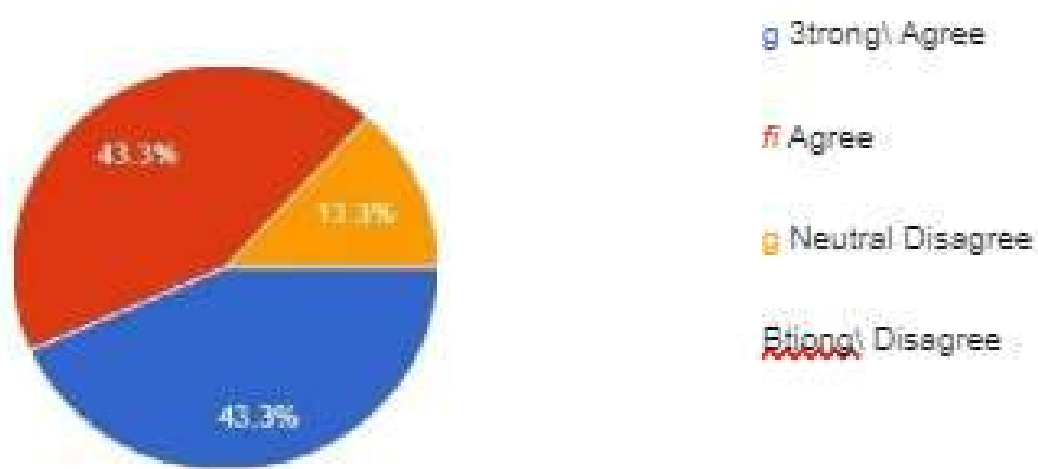


Figure 4.7 : Product characteristics

Based on the figure 4.6 , most of the respondents are agree that the product is suitable for travelers and backpackers. Only 6.7% of the respondents are agree that the product is not suitable for travelers and backpackers..

Do you think this travel mat kit has enough storage space?

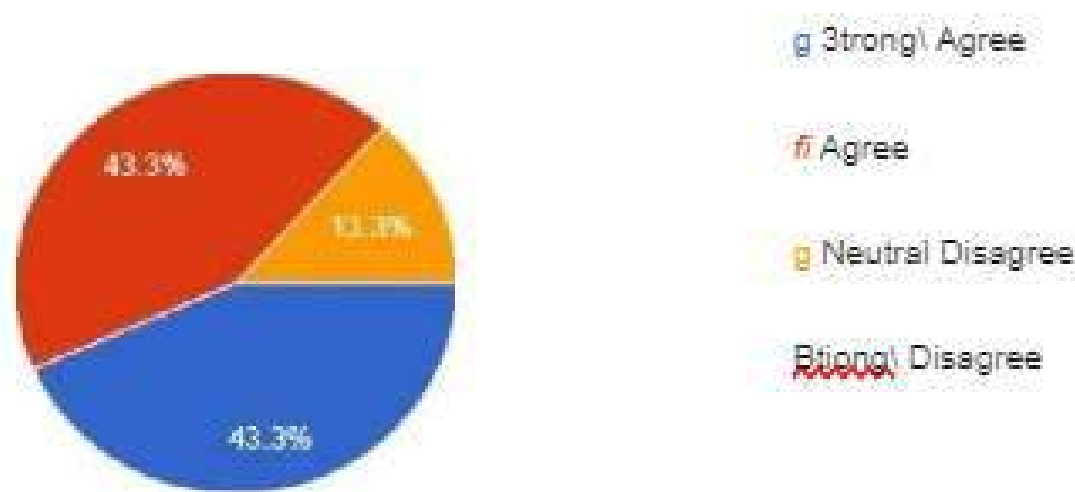


Figure 4.7 : Product characteristics

Based on the figure 4.7 , most of the respondents are agree that the product has enough storage space . 13.3% of the respondents are neutral disagree that the product has enough storage space.



5.0 DISCUSSION

Researcher have been able to create and introduce new travel mat kit for travelers and backpackers. The survey has been made on the analyse the objective of the research. The respondents were asked to answer the questionnaire that consists of the weight, spacious, and suitability of the product. The respondents are among Politeknik METrO Kuantan lecturers and students. Total respondents are 30 people.

6.0 CONCLUSION

In conclusion, we hope that the product can be accepted because it will convenient to the travelers and backpackers to reduce luggage usage. This product also hygienic to them because they do not need to share travelers gear with friends as this product has enough space for them to bring all the necessary item everywhere they travel. It is also lightweight and they do not need to bring extra luggage while traveling and it help them to mobile from one place to another by using this product. Lastly, this 'Travel Mat Kit' can attract people to travel frequently time by time and discover adventure all over the world.

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QUENNY QUINOA

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ABSTRACT

Today's world, a healthy lifestyle and proper nutrition are emphasized. The importance of a balanced diet can't be emphasized enough for a healthy lifestyle. A healthy lifestyle can be attained by maintaining a balanced diet and keeping into consideration to meet all the essential nutrients required by the body. A proper meal plan helps to attain ideal body weight and reduce the risk of chronic diseases like diabetes, cardiovascular and other types of cancer.

Introduce Quinoa (pronounced "keen-wah") is an edible seed that comes in a variety of colour such as black, red, yellow, and white. The plant has been cultivated for over 5000 years and is native to South America's Andean region, Chile, and Peru. Though technically a seed, Quinoa is classified as a whole grain and is a good source of plant protein and fiber. Quinoa is a good source of essential amino acids such as lysine and methionine, so its high nutritional and dietary quality meets the demands of the food industry and consumers.

Queenly quinoa is a ready to eat food product. The idea of creating this kind of products to promote healthy eating habit among Malaysian. Besides, the ingredients used in this product also healthy and safe to be consume. From our research finding, the data shows that 57% respondents strongly agree with Queenly Quinoa is a healthy food. This food product may help those consumers who does not have enough time to prepare healthy meal. In facts, the cooking method for Quenny Quinoa has been tested by pan fry, steaming and air fryers.

1.0 INTRODUCTION

Malaysian society is the high in southeast Asia country with health problems due to eating unhealthy foods, such as greasy and fatty foods such as coconut milk(NHMS, 2019). This review concept reports the outcomes of current research regarding the nutritional and biological prosperities of quinoa, which has been produced in different parts of the world. Moreover, considering the importance of processing in preservation of the nutritional attributes of quinoa, extension of quinoa seed and its products, and the development of various quinoa food products, the following section of this review focuses on changing people lifestyle to healthy lifestyle. The aim is to provide a complete review of quinoa's production and consumption to future. Quinoa has many benefits for those who want to stay healthy, Quinoa is a complete protein that contains all nine essential amino acids, making it one of the most protein-dense foods (Kris Gunnars, BSc, 2018).

2. LITERATURE REVIEW

Health benefits can be defined as something positive that we gained from something that we practice healthily either in terms of nutrition or body care. Other than that, healthy eating practices is important to human body because to protect our body from the diseases out there. Besides that, when we eat healthy food that have enough vitamin and also mineral, our body are at a lower risk for cardiovascular disease, certain cancers, obesity, and even anxiety and depression. Plus, we will have more energy, feel better, and may even be in a better mood on a daily basis.

This review concept reports the outcomes of current research regarding the nutritional and biological prosperities of quinoa, which has been produced in different parts of the world. Moreover, considering the importance of processing in preservation of the nutritional attributes of quinoa, extension of quinoa seed and its products, and the development of various quinoa food products, the following section of this review focuses on changing people lifestyle to healthy lifestyle. The aim is to provide a complete review of quinoa's production and consumption to future (V Angeli, 2020)

So, to raise up back the popularity of quinoa, we freshly came out with the idea Queeny Quinoa which is some good and fresh food product from quinoa so that it will become popular in our country. Other than that, Queeny Quinoa will change people eating habits to a healthy eating lifestyle in line with our objective which is to promote healthy eating habits because of the incredible nutrition base in the quinoa.

3.0 METHODOLOGY

3.1 PRODUCT DEVELOPMENT

The primary goal of this research study is to create quinoa-based products, including food and by-products, while maintaining healthy eating habits in mind. Though quinoa technically a seed, quinoa is classified as a whole grain and is a good source of plant protein and fiber also quinoa is a complete protein, meaning that contains all nine essential amino acids that our bodies cannot make on their own. Diagram 1 show product development process:

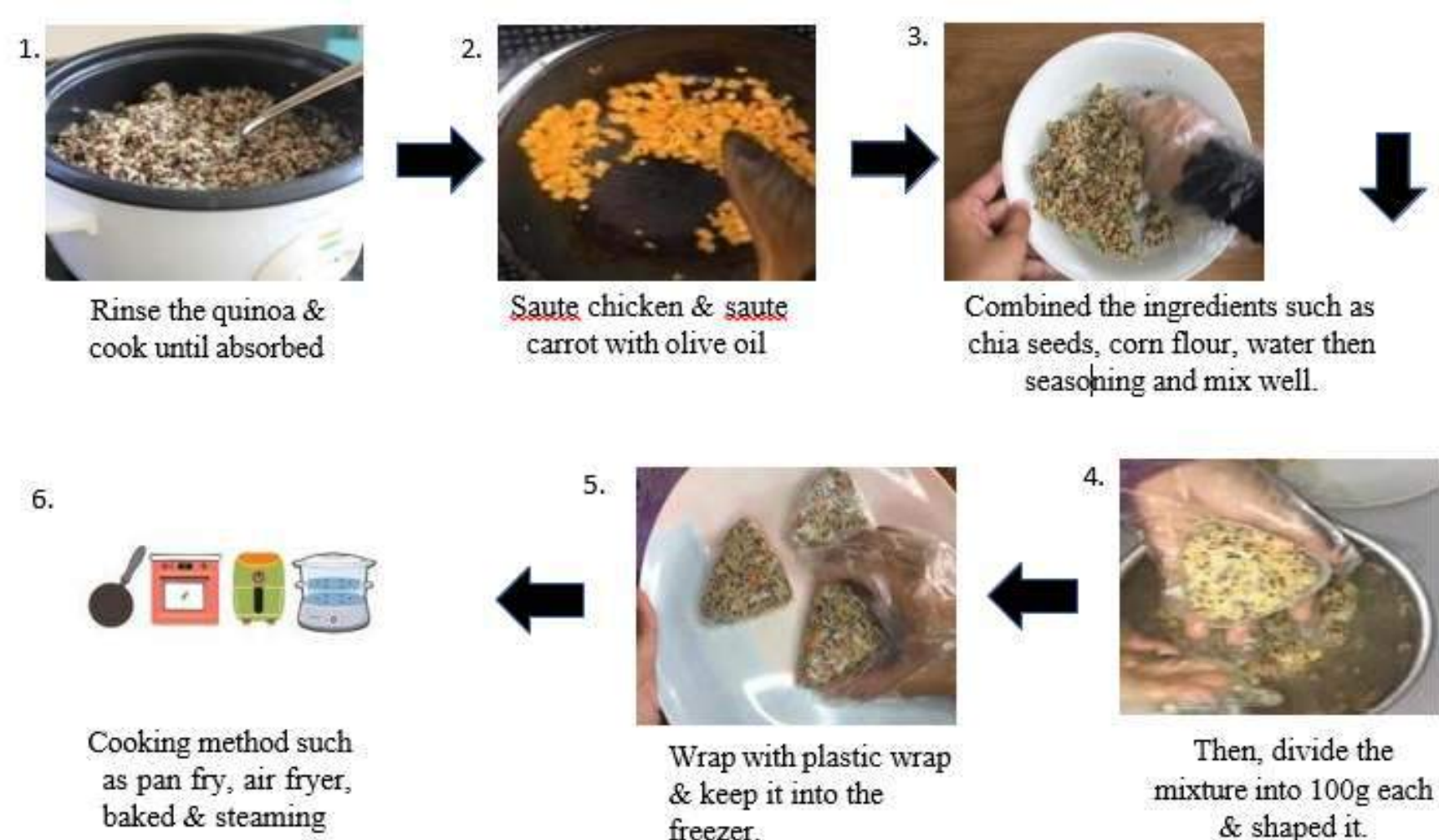


Diagram 1



3.2 INSTRUMENT DEVELOPMENT

The development of our questionnaire is based on the problem statement that we found throughout this research on our product. The structured questionnaire has five section which is:

Section A : SectionA ask about respondents demografic profile include age, sex, maritalstatus, religion, race, education background and income.

Section B : Section B ask about health food benefits quinoa. Section

C: Section C ask about nutritious meal of quinoa.

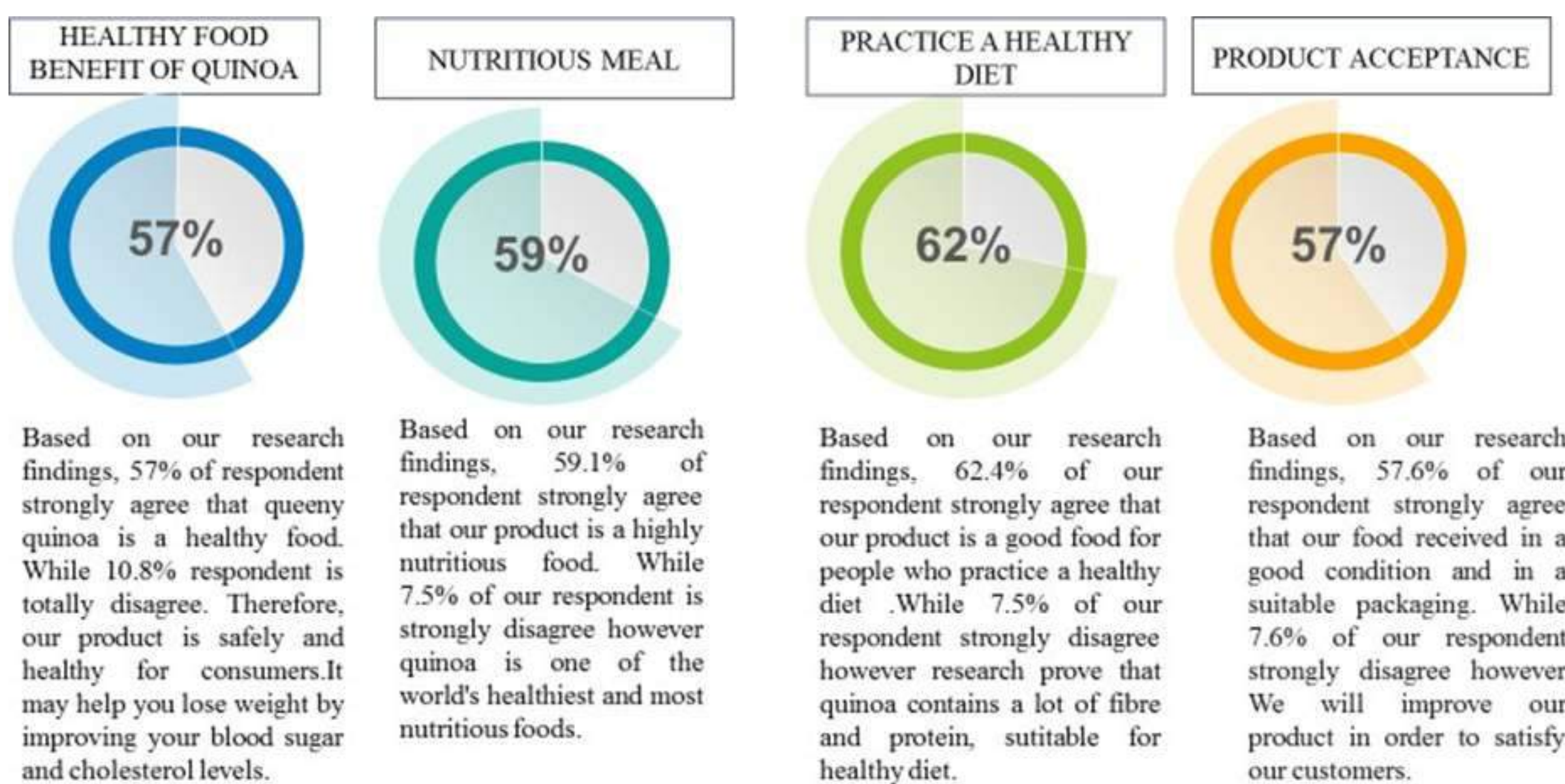
Section D: Section D ask about practice a healthy diet.

Section E: Section E ask about product acceptance.

3.3 SAMPLING

The respondents are selected based on a convenience sampling method. Our sampling is 93 people to conduct our research methodology & research sampling and design, which referring to table Krejcie & Morgan (1970).Based on this Chenopodium quinoaplant-based product has a varietyof benefits for the healthof the body such as obesityand high high blood pressure (if any) and have high protein,fiber and carbohydrate it can also irritate foods such as rice. In addition, evaluating our products so that we can introducethe existence and benefitsof Queeny Quinoato the target customers.

4.0 FINDING(DATA ANALYSIS)



In this regard, the questionnaire results provide an overview of the published results concerning the nutritional and biological properties of quinoa grown in various parts of the world over the last two decades. This review sheds light on how conventional quinoa processing and products evolved and are now being absorbed into innovative food processing and modern food products. Furthermore, this review goes further than the technological aspects of quinoa production by acknowledging the socioeconomic and environmental challenges of quinoa production, consumption, and marketizations to reflect a complete and accurate approach to promoting quinoa production and consumption.



5.0 DISCUSSION

Quinoa is a complete grain that is gaining popularity as a result of its numerous health advantages. Quinoa seeds can be cooked and eaten in the same way as most cereals, although the quinoa plant itself is more like to beets and spinach. This multipurpose, nutrient-dense plant's seeds and leaves can both be consumed. Quinoa is gluten-free, high in protein, and one of the few plant foods that contains all nine essential amino acids in sufficient levels. It also contains a lot of fibre, magnesium, B vitamins, iron, potassium, calcium, phosphorus, vitamin E, and other antioxidants but Quinoa is low in sodium and high in calcium, potassium, and iron, making it a nutritious and beneficial addition to any diet.

However, some people may have stomachaches, itchy skin, hives, and other food allergy symptoms after eating quinoa.

The unsatisfactory of the Quinoa, the Quinoa is hard to find around our limited movement because its price is too expensive due to its quality. So that, only selected groceries shop provide Quinoa which we cannot find nearby. Not only its difficult to find, it is so fragile which become more complicated while shaping it according to our pattern. Another inadequacy, in the making of this Quinoa the seasoning should be followed by the recipe otherwise the quinoa would be tasteless. However, the quality to provide the recipe for this product can be guarantee it achieved the level of satisfactory to the audience after the market release.

6.0 CONCLUSION

Queeny Quinoa has the potential to be marketed & have customers because of the content of nutritious ingredients and healthy for the body to avoid diseases such as obesity, it is also easy to eat just like that. Quinoa also does not contain any unsafe ingredients that can affect health. The food design is also attractive and easy to carry along anywhere.

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PASTA DELICIOUSA: A MERGED OF THREE TRADITIONAL DISHES

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ABSTRACT

This study provides information on an innovative fusion food product called Pasta Deliciousa that combined three traditional dishes from three different countries consisting of Malaysia, Indonesia and Italy, namely ravioli pasta with chicken satay and served with rendang sauce. The research aimed to identify the potential customer's acceptance level towards Pasta Deliciousa. Qualitative research method or survey was chosen. A 5 Linkert scale questionnaire in the form of Google Form was used to collect scores on sensory evaluation and perception level towards Pasta Deliciousa. Fifty staff and students were selected randomly to participate in the survey while results showed that Pasta Deliciousa was well accepted and welcomed by the potential customers as the score on the product sensory evaluation and product perception were high.

Keywords: Convenience Food, Fusion Dishes, Pasta, Ravioli, Rendang

1.0 INTRODUCTION

Malaysia food could be one of the most attractive and enjoyable experiences in Malaysia. As the cuisine is majorly a combination of three main ethnic Malay, Chinese and Indian because of its geographical location the variety of ingredients is very rich and the taste has become inevitably delicious. According to our project we have identify that pasta takes a relatively long time to cook and it takes about 15 minutes just to boil the pasta noodle. Otherwise, based on our short observation in the market, there is no any ready-to-eat- instant pasta available in the market.

Therefore, Pasta Deliciousa is born with the aimed to propose a possible solution to the problem. Pasta Deliciousa is an innovative dish that was inspired by three traditional dishes around the world, namely Pasta (Italian), Satay (Indonesian), and Rendang (Malaysian). The ravioli of our pasta is made based on the Italian pasta recipe, enriched with the hearty goodness of vegetable juices (beetroot, spinach and turmeric). The ravioli of our pasta is stuffed with delicious chicken satay and it is served together with the rendang sauce.

The objective of this study:

- i- To create a new flavour ready-to-eat-instant pasta that is easy to cook and can be eaten rapidly.
- ii- To identify the potential customer's acceptance level towards Pasta Deliciousa.
- iii-The research of this study is "What is the PMKU staff and students' acceptance level towards Pasta Deliciosa?"



2.0 LITERATURE REVIEW

Pasta has been very popular in Italy and has been also eaten in many parts of Asia for a long time, it also the national dish of Italy, invented in (1986). A common belief about pasta is that it was brought to Italy from China by (Marco polo during 13th century). According to the president Thomas Jefferson, the third president of United States of America in (1789), is credited with bringing the first macaroni machine to America in(1789), he returned home after serving as ambassador to France. According to history, pasta's earliest roots begin in China during the Shang Dynasty (1700-1100BC).

Rendang is a *Minang* dish originating from the Minangkabau region in West Sumatra, Indonesia. It has spread across Indonesian cuisine to the cuisines of neighbouring Southeast Asian countries such as Malaysia, Singapore, Brunei and the Philippines. The origin of *rendang* could be traced back to the Indian merchant's links to West Sumatra before the 15th century. There are Dutch archives about Minangkabau that state regular contacts between India and West Sumatra in the early second millennium, thus suggests that north Indian curry was possibly the precursor of *rendang*. Indian curry was adapted by the Minangkabau people as *gulai*, a local version of curry. Minangkabau people then cooked this *gulai* further in order to prepare *kalio* also known as wet *rendang*. Andalas University historian, Prof. Gusti Asnan suggests that *rendang* began to spread across the region when Minangkabau merchants began to trade and migrate to Malacca in the 16th century, "Because the journey through the river waterways in Sumatra took much time, a durable preserved dry *rendang* is suitable for a long journey".

According to the Oxford English Dictionary the word "satay" is derived from Malay word satay, Later, mention of sate in Denpasar, Baking appear in (1937) with description of Malays cooking satay appearing in (1995). By the late -19th century satay had crossed the straits of Malacca neighbouring Malaysia, Singapore and Thailand.

3.0 METHODOLOGY

Quantitative methodology was selected for this project and online survey was adopted as it is the safest and best research option available during the COVID-19 pandemic. As illustrated in Figure 1, the project was carried out in 3 phases: product development, data collection and data analysis.



Figure 1: Research Methodology



The innovative recipe of pasta delicious was first developed with experiments for 7 weeks to find the best, texture, taste and consistency of the product. Next, data collection was then executed to collect feedbacks on the innovative product on sensory evaluation and also the respondents' perception towards the product to answer to the research questions. The respondents of this research were students and staff from Politeknik Metro Kuantan. Respondents were randomly selected among students and staff at Polytechnic METRO Kuantan, Pahang and the size of sample is 50. Instrument used was a 5 Linkert scale questionnaire in the form of Google form. This, the questionnaire was divided into part 1 which is Demography information, part 2 is sensory evaluation and product perception.

4.0 FINDINGS

Table 1 mainly show the highest respondent female respondent is 85% and male is 15% from 1 lecturer, 18 students & 1 worker. Based on product sensory evaluation section showed in this pie chart we can see that majority 72.86% of our potential customers had given positive responses to the taste, aroma & appearance of our product with nearly half of the respondents 46.43% strongly satisfied.

Table 1: Overall Sensory Evaluation & Product Perception

No .	Questions	Strongly disagree	Disagree	Natural	Agree	Strongly agree
1.	The aroma of the food is nice	0%	5%	5%	50%	40%
2.	The texture of the pasta is good.	5%	5%	25%	45%	20%
3.	The appearance of the pasta looks tempting.	0%	5%	25%	55%	15%
4.	The spiciness level of the pasta is just right.	5%	0%	35%	40%	20%
5.	The saltiness level of the pasta is just right.	5%	0%	25%	50%	20%
6.	The shape of the pasta is interesting.	5%	0%	20%	45%	30%
7.	The pasta is delicious.	5%	0%	15%	40%	40%
8.	I would buy this product if it is available in the market.	0%	5.6%	16.7%	44.4%	33.3%
9.	I find this product interesting.	5%	0%	20%	33.3%	41.7%
10.	I find this product convenient.	5%	0%	22.8%	27.8%	44.4%

In short, this graph showed 97.79% are in favour with the taste of our product. Otherwise, the overall product perception 74.74% of the respondents have given positive responses claimed that they would love to buy our product, find the product interesting & convenience. Overall, we have scored 95.11%, a relatively high score in the product acceptance level.



5.0 DISCUSSION

Based on the product review survey data that has been collected, the overall product sensory evaluation suggested that majority, 72.86% of our potential customers had given positive responses to the taste, aroma and appearance of our product with nearly half of the respondents 46.43 % strongly satisfied. In short, data showed that 97.79% are in favour with the taste of our product. The overall product acceptance level is at 74.74% where respondents have given positive responses claimed that they would love to buy our product, find the product interesting & convenience. Overall, 95.11%, a relatively high score were obtained for the mini survey on the product acceptance level on Pasta Deliciouosa. Therefore, to answer to the research question, the high scores in the sensory evaluation and acceptant level indicates that potential customers welcomed and accepted the newly developed Pasta Deliciouosa.

6.0 CONCLUSION

As a conclusion, that Pasta Deliciouosa provides consumers with new product that offers affordable prices and a delicious healthier version of food choice to addition to the ready-to-eat food choices. In addition, it provide the students opportunities for student in entrepreneurship and creates sources of income. Moreover, our product can be another convenient food option for travellers as well as busy people as we know our product only need 5 minutes to get our delicious pasta served with minimal cooking time and skills. In addition, In addition, this product fits perfectly in this food categories to increase competitiveness and offer a new variant of product as high acceptance level and sensory evaluation scores were obtained from this research.

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TOURIST'S CYCLER EYES, A JOURNEY TO PRECIOUS MOMENT

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ABSTRACT

This study tries to solve the run accidents around cyclists in their journey. Then, the cyclist lost contact with their family and friends within their riding. Hence, the prototype helmet tries to integrate the essential tools to the cyclist such as wifi camera. The instruments study use quantitative methods such as questionnaires distributed to 50 respondents targeting cyclists in Bera and Kuantan district, google form and analyses by SPSS software to check their descriptive results. The acceptance survey has been conducted to cyclists in Bera and Temerloh and the result showed positive performance with it, and then describes the recommendations and methods that will be done to address the research problems.

Keywords: Helmet, Camera, cyclists

1.0 INTRODUCTION

A cyclist is a potential spacecraft on a closed transfer orbit that would pass close to two celestial bodies at regular intervals. Cyclists could be used for carrying heavy supplies, life support and radiation shielding. Statistically, cyclists add a higher mortality rate per trip or per mile travelled as passengers in one car. Cycling outside the home area is a form of fun that can be easily obtained. But it will be more beneficial if it is made into a program to shape physical fitness. Cycling is very effective and will be an exercise that will reduce mental stress and can be an activity suitable for all ages. This product has been created to incorporate all the safety features in the helmet to solve the problem of cyclists. To determine the level of effectiveness of this product and require feedback from cyclists from Bera and Kuantan districts using a questionnaire platform (Komanoff, 2004).

Problem Statement

In Malaysia there are many cases of accidents between cyclists with cars, lorries and others. This study will create a product called cyclist's eyes which uses a closed camera. With this cyclist's CCTV product, it is possible to record the action of the incident through a closed camera. In addition, this closed camera function can record interesting moments while cycling. Also, there are some cyclists who want to cycle at night because the weather at night is colder than during the day. They need lights to illuminate the street. Next, when it was dark, they were bored of not being able to see the atmosphere, a feature that provided a musical instrument to listen to the song. When the battery runs out, they need a power bank to charge the telephone. Finally, cyclists want to put necessities such as power bank, earphones, telephones and others. In this product, we provide a small size bag to store the goods. This does not cause the cyclist's shirt or pants to not be torn.



Significance of study

Able to reduce the rate of accidents such as hit and run cases and the level of injuries to cyclists who ride on the road. This product can solve the problem of some cyclists who ride their bikes at night, they need a flashlight to illuminate the road. With this flashlight, they will not go astray or break the rocks on the road. The study sought sources from various websites to ensure the information was correct and authentic. The effect of this study the purpose of the study can find out whether the cycler eyes investigator can recorded the memories recorded while riding a bicycle on the road and provide other facilities to the user.

2.0 LITERATURE REVIEW

It is time for the government to seriously study the issue of accidents involving cyclists on the road, to find a solution to the matter. Chairman of the Malaysian Safe Community Association, Tan Sri Lee Lam Thye, said there was a need for efforts to provide plans for cyclists so that further difficulties would not arise in the future. This year, he said, there were 137 accident cases recorded by the Royal Malaysian Police (PDRM) involving 56 deaths, 18 serious injuries and 63 minor injuries compared to last year's 201 cases by Fahmy A Rosli (2020). A total of 137 accidents were recorded by the Royal Malaysian Police (PDRM) involving cycling activities on the road, from January to October this year. The study, published in the Journal of Oral and Maxillofacial Surgery, found that despite an increase in bicyclists on the road during the study period from 2008 to 2017, the number of total facial and head injuries from bicycling did not increase. "We believe this may be due to a safety-in-numbers phenomenon, whereby increased public safety campaigns, government and private-center funding for facilities and infrastructure, and overall awareness by cyclists and drivers appears to protect cyclists -- which translates to further benefits for drivers and others," said lead author Corina Din-Lovinescu of Rutgers New Jersey Medical School's Department of Otolaryngology. Still, the rise in popularity of bike riding has led to an increase in more serious injuries, particularly among cyclists aged 55 to 64. Has led to an increase in more serious injuries, particularly among cyclists aged 55 to 64. They were treated at hospital emergency departments nationwide for traumatic brain injuries and broken bones in the face more than 86,439 times from 2008 to 2017. The incidence of these craniofacial injuries varied significantly among age groups. While patients aged 18 to 24 were injured more frequently, likely due to the popularity of bicycling in younger adults, patients aged 55 to 64 had the most significant increase in injuries, with a 54 percent growth over the ten-year study period. Traumatic brain injury was the most commonly diagnosed injury, accounting for nearly 50 percent of emergency department visits. Those aged 45 to 54 were the most likely to be hospitalized with facial fractures, the most common to nasal bones, followed by jawbone fractures. Researchers say older adults need to practice additional safety precautions when bicycling to help reduce injuries. Preventative behaviors such as avoiding alcohol before cycling, wearing brightly colored or reflective clothing, using lights or reflectors at night, and wearing helmets are simple maneuvers that can be taken to prevent hospitalizations and decrease cycling-related morbidity as reported by Corina Din-Lovinescu, Ishan Parikh, (2019).

3.0 RESEARCH METHODOLOGY

The study is closely related to the goals and objectives of how it was created. It can provide a complete and accurate order of results. Method of preparation of samples this is quantitative method research for example use google form for respondents to answer questions. Instrument of collecting method using questionnaire. A collection of questionnaires was distributed to 50 respondents targeting cyclists in Bera and Kuantan district.



Methodology used in this research included survey by online questionnaire and statistical analysis of obtained data through SPSS program version 21. Quantitative methods used in the research included descriptive statistics. Questionnaire consisting of 15 questions to cyclists in Bera and Kuantan district. Since the study tends to evaluate the strength of perceived barriers of students of professional courses, the target respondents were cyclists in Bera and Kuantan district. These cyclists in Bera and Kuantan district students were at all levels in their ages through children, students, adults and old people. The sampling method used in this research is proportionate stratified sampling. In this type of sampling each stratum is properly represented so that the sample size drawn from the stratum is proportional to the stratum's share of the total population. Instrument of collecting method using questionnaire. A collection of questionnaires was distributed to 50 respondents and targeting cyclists in Malaysia. This product has been innovated because in Malaysia such a helmet is needed to reduce the risk of accidents for cyclists.

The total number of respondents is around 70 people from their own company, government servants and students. The sample size for this study is 16 questions. In this study, the sample size is 70 people from their own company, government servant and student. In this case, the sample size is slightly larger. Structured random sampling method was used to collect the data from the respondents from their own company, government servant and student. Respondents are from the various faculties, any company from the different races and gender and age seniority where they are being selected conveniently, randomly and in a structured manner for this survey. The total number of duly completed questionnaires returned is 70 questionnaires (70%). This is sufficient because it meets the requirements of more than 70 to 80% return of the questionnaire. *Data analysis and interpretation*, this stage is the final solution to the overall problem of the study. The process of analyzing data is easier with the help of cyclist in the journey recorded. The analysis performed is a statistical calculation of the data that has been obtained from certain sources. The final results obtained are presented in the form of forms and graphs to facilitate an assessment of the purpose and objectives of the study. SPSS is the one of methods used to process the analysis of analyzing data.

To test the expected study at the end, the researcher has used Chi-square test. Students were categorized in three categories based on their relative importance given such as appearances, multi functionals, social media interaction, and live view of journey were considered to determine the reaction from respondents. Twenty (20) statements, for each of the above product's features traits were asked to determine the strength of study. The questions related to the quality and function experienced from the respondent's view were derived from a scale. The score is 1 point for strongly agree and 5 points for strongly disagree. Thus his scores varied from 50 to 70. Thus, three categories were developed between 50 and 70 based on the scores. The finding shows the product features categories perceived to be intelligent based on respondent categories. Cross-tabulation also displays the number of cases in each category by questionnaire platform.



4.0 FINDINGS AND CONCLUSION

For the SWOT analysis, this study is able to conclude that respondents overall think there are some shortcomings in this product. Chi-square test and Spearman rho correlation have further confirmed that the choice of cyclist in choosing tourist cyclist eyes, in particular can solve the problem of cyclist when facing problems while cycling is actually positively influenced by the difficulty felt. Chi-square test and Spearman rho correlation performed to find out the strength of the perceived barrier against the cyclist when they are cycling on the road and cycling at night on cyclists with different age types have clearly proved that age type has a strong influence on the strength of the perceived barrier against tourist cyclist eyes. The findings from this study will solve every problem of cyclists when facing problems while pedaling a bicycle. Removing barriers can help promote this product to encourage cyclists in Malaysia to continue to choose our products and be able to identify new sources of revenue. This study was conducted to identify the problems of each cyclist as they pedal. It has been observed that Malaysians consisting of their own company, government and students need helmets like our products to solve their problems. The results of our study show that our products have played an important role in ensuring the safety and health of cyclists. In conclusion, we present the results of the study that has been reported and its appropriateness in response to the objectives that have been set. The results of this study are to examine the perception of the public, own company, government servants and students about this helmet. The results of the study that has been conducted on tourist's cyclist eyes can be concluded that this study can be achieved. The objective is proven that the innovative products of helmets provide good functionality to the users.

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CRISPY TEMPE GO

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ABSTRACT

Tempe is a processed product from soybean plants. However, recently the supply of soybeans has not been able to meet the needs of raw materials for the tempe processing industry, therefore alternative materials are needed to replace soybeans. One of the ingredients that can be used as a substitute for soybeans is mango seeds. This study aims to find out how to process mango seeds into tempeh and its nutritional content. This research was conducted by giving tempeh yeast (*Rhizopus oligosporus*) to mango seeds and varying fermentation times (24 hours, 36 hours, 48 hours,) for yeast weight of 0.6 grams in 100 grams of mango seeds. From the results of the research that has been done, the best tempeh is with a yeast weight of 0.6 grams and a fermentation time of 48 hours. It is hoped that from the results of this study the community can utilize mango seed waste as an alternative raw material for making tempeh.

1.0 INTRODUCTION

We agreed to produce one of the innovation products based on the mango fruit part, namely mango seeds. We took the initiative by choosing mango seeds because we thought the part was not used and most of it was discarded, causing an increase in waste products in our country. They will throw away the seeds just like that because it only uses the contents of the mango, therefore we think that by innovating the discarded mango seeds as a new innovation product that is 'CRISPY TEMPE GO' is one of the best ways to avoid it being discarded just like that and unnecessarily will directly help produce more useful products, tempeh for example which is popular in Indonesia. Although the way of production seems to be the same as regular tempeh, but by replacing it with mango seeds will certainly cause differences in terms of texture and taste. Our main reason by making this product is to minimize the disposal of mango seeds and produce food products based on wasting part.

1. Problem Statements

In our observations, we found that the average society in our country still does not care about the problem of food waste disposal. Based on the field studies that have been done, we found that many street vendors dispose of mango waste such as seeds and skins and will cause increased food waste disposal in our country. This is because they do not know its content which can benefit the society

Nowadays, tempeh is a daily food that can be found everywhere, it is also in high demand among the community and cause the factory that produces this tempeh can not afford the daily production. In our study, we found soybean stocks to be hard to come by and it would cause soybean prices to rise. This will also increase the cost of producing tempeh and will increase the selling price of tempeh in the market.

Further, we also found that there are many tempeh fans in the community. In a field study that



we have done in eateries around kuantan, we found that there are several dishes available for a eatery, and customers who order food that has tempeh dishes are quite numerous. And we also found that there are a handful of people who eat tempeh but are wrong about soybeans so he can't order food that has tempeh made from soybeans

1.Objective

The following research objectives have been identified:

1. Identify the nutrients contained in mango seeds.
2. To expose to the public to tempeh produced from mango seeds.

2.0 LITERATURE REVIEW

2.1 Related topic

Tempeh is a food originating from the Javanese people. Just mention tempeh, we must have imagined the traditional food of the Javanese people in this country. Some are cynical that it is village food or a cheap dish. The fact is that it is a food that is quite nutritious with high protein because the basic ingredient is soybeans. Want to eat real tempeh, we no longer need to fly far to Indonesia because in Malaysia, tempeh is popular, especially in nasi padang restaurants. wind to the village or back to the village where most of the population is inhabited by the Javanese community, tempeh is easy to obtain, so it is cultivated traditionally also with a rice dish with salted fish.

(BH, Zubir Mohd Yunus - August 16, 2015)

2.2 Concept/Theory

Mango peels

Manggo peels mango seeds are the main ingredient we use to make "CRISPY TEMPE GO". This material is one of the waste products, it is easy to get these items around Kuantan especially in restaurants, cafes or other food outlets. Mango seeds are one of the best additions in producing local agricultural products. It also contains nutrients such as, effective anti-diabetes to overcome diabetes, Mango seeds are useful for improving glucose tolerance and lipid profile, and can reduce obesity and help lose weight. The benefits of mango seeds also help beautify the skin so that it looks youthful.

2.3 Use Mango Seed Become Mango Juice For Industry

Mango skins and seeds are the main by-products of the mango juice industry, they are a rich source of natural bioactive compounds that play an important role in disease prevention. In this study, the effect of mango peel powder (MPP) at different replacement levels (5, 10, 15 and 20%) and mango seed powder (MKP) at (20, 30, 40 and 50%) on rheology, physical, properties sensory and antioxidant biscuits were assessed.

3.0 METHODOLOGY

3.1 Product Development

The process begins by washing 100 grams of mango seeds using clean water to remove dirt. Seeds please cut about the same size as soy then washed again. Then the mango seeds are soaked in salt water for 1 hour, then clean the mango seeds and re-soak in filtered water for 24 hours. This soaking aims to hydrate the seeds and allow the fermentation of lactic acid naturally to obtain the acidity needed for the growth of fungi (fungi/yeast). After 24 hours, mango seeds are washed again to remove the acid smell due to soaking. Then the mango seeds are peeled until clean, then washed and steamed for 45 minutes. Once cooked, mango seeds are drained and left to cool before being given tempeh yeast. If it is in a cold condition, mango seeds are given yeast. Then the mango seeds that have been given yeast are wrapped using banana leaves and newspaper to be fermented with varied fermentation time (24 hours, 36 hours and 48 hours). The temperature used is according to the room temperature.



3.2 Questionnaire

This study is about using a quantitative method which is a process to measure the emphasis of objective measurement and statistical or numerical analysis of data collected through surveys or questionnaires. This type of research is used to determine the relationship between one thing and another. The main purpose of choosing this type of method is to classify features, calculate them and build statistical models in an effort to explain what is observed. Based on the survey through the questionnaire, surely we will find out how the consumer acceptance with our new innovation product that is 'Crispy Tempe Go' the main ingredient of used mango seeds depends on soybeans.

3.3 Research Instrument

Quantitative research which we use can be obtained with questionnaire, survey by doing an observation and product tester to know the taste, effect and experiences depend normal tempe.

This question are planned by us to know how accept on people with 'Crispy Tempe Go' based on mango seed. The content of this instrument is based on researcher such as questionnaire and make site visit to collect more information. This questionnaire include Demographic, Dichotomous Question, and Sensory Evaluation. The instrument was structured in the modified Likert fashion, on a 4 - point scale, ranging from Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree. Subjects were then instructed to respond to their degree of agreement with the statements contained in the instrument

3.4 Sampling Design

This project uses quantitative methods in which 30 number of respondents from community are selected. This quantitative research is based on quantitative measurements at Malaysia. Furthermore, with this study, we are easier to learn and get feedback from community because more than they do not know that mango seed can be tempeh.

4.0 FINDING (Data analysis)

We handled our product survey with 2 method which is by questionnaire and sensory evolution. The aim of this chapter is gaining so much perception and information from respondent about our product. We chose 30 respondents from our nearby area to answer the question and at the same time taste the crispy tempe go. All of the information data that has been provided, we put in on Excel to get the overall result.

This graph shows a large number of ages who like tempeh 20-25 years and this is evidenced by a survey of 20-25 who have answered the survey as much as 54%.and the graph shows a large number of sexes who like tempeh between men and women. This is proven by the number of sexes that contribute the most in the graph is women by 51% with the result proving that the sexes who like tempeh the most are women.

This graph shows that there are three races, namely Malay, Chinese and Indian. The question is which races get the highest response in accepting tempeh as their daily food. The most highly rated by people in receipt of food tempeh as daily food is Malay or bumiputera of 95.5% shows that the acceptance of tempeh in a very high percentage of the Malay community.



This graph shows that there the acceptance of tempeh food in a community is highly encouraged. In addition, there are a few people who are allergic to soybeans with the presence of mango seed tempeh, the problem of soybean allergy can be overcome and get encouraging response in the community.

This graph shows that there the acceptance of tempeh food in a community is highly encouraged. This graf show that majority fans tempeh will once a week . This show how important tempeh in their daily food. With this result of 44 responded of tempeh form seed mango a very encourage.

This grap show that majority says about tempeh from seed mangos have good taste and have high nutrients also very cheap costing for making tempe mango seed .

5.0 DISCUSSION

This research was done by giving tempeh yeast (*Rhizopus oligosporus*) to mango seeds and different fermentation times (24 hours, 48 hours, 36 hours,) for yeast weight of 0.6 grams in 100 grams of mango seeds. From the results of studies that have been done, the best tempeh is with a weight of 0.6 grams of yeast and a fermentation time of 48 hours. and the result we obtained from these mango seeds can be made into tempeh but from our research the exact time to get a successful result is 48 hours. for 24 hours the growing fungus does not cover the whole seed, for 36 hours the fungus turns black which makes the tempeh spoiled to taste.

6.0 CONCLUSION

In conclusion, the process of making this tempeh in a new method as we want to be a trigger for ideas towards the evolution of local food products such as tempeh with "CRISPY TEMPE GO" we are able to realize our idea by changing the structure of regular tempeh production using the main ingredient is soybeans by changing the main ingredient in soybean tempeh production to mango seed as the main ingredient in the production of our products because mango seeds have good nutrition to humans.

In addition, this product is based on the source of material that will be food waste with the invention of our product, we have given a new breath for waste material from discarded. Finally, with the result of our product "CRISPY TEMPE GO" we can make the community in Kuantan aware of the benefits of this product can be one of the sources of income, not only that but also able to improve the quality of local products in a commercial direction as well as have good nutrition, healthy and acceptable and can be eaten by all levels of society regardless of age.



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7.0 APPENDIX

FREQUENCY TABLE

AGE

	Frequenc y	Percent	Valid Percent	Cumulative Percent
= < 18 years old	4	5.6	5.7	5.7
Valid 19 years old	53	74.6	75.7	81.4
20 years old	13	18.3	18.6	100.0
Total	70	98.6	100.0	
Missing System	1	1.4		
Total	71	100.0		

GENDER

	Frequenc y	Percent	Valid Percent	Cumulative Percent
Male	39	54.9	55.7	55.7
Valid Female	31	43.7	44.3	100.0
Total	70	98.6	100.0	
Missing System	1	1.4		
Total	71	100.0		

OCCUPATION

	Frequenc y	Percent	Valid Percent	Cumulative Percent
Own company	4	5.6	5.7	5.7
Valid Government servant	9	12.7	12.9	18.6
Student	57	80.3	81.4	100.0
Total	70	98.6	100.0	
Missing System	1	1.4		
Total	71	100.0		





MY BIMICAA

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ABSTRACT

This study decided to make a product that made from coconut hemp because we were able to ensure that the productivity of learning process for tourism student. In addition, our group also makes this product because it can help other people about the different culture of other races. This product has many benefits and can help facilitate the user. This is a quantitative research method for example using google forms for respondents to answer questions. Collection method instrument using questionnaire. A group of questionnaires was distributed to 105 respondents targeting student in PMKu. The results of the study conducted and then describe the recommendations and methods that will be done to overcome the problems of the study.

1.0 INTRODUCTION

This chapter provides a general overview of the background for the present study, described the statement of the problem and objectives.

PROBLEM STATEMENT: The first problem identified was the original of the traditional attire is almost forgotten by the young generation because the attire has evolved. For example, the passage of time caused traditional clothing to also go through evolution. However, the existence of 'instant fashion designers' who are too stubborn to create a name has caused some of the designs to damage the value of fashion. The second problem identified was the misunderstanding between other races in Malaysia about their culture. For example, Malay people hold a ceremony 'Malam Berinai' with Indian wear. This can be a problem because for some Indian people think that the Indian wear and ceremony only for their races. Lastly, the problem identified is the disposal of used materials such as coconut hemp. For example, Nazmi Mohd. Zain said if he heard that his friends had finished harvesting watermelons, he would ask about their used coconut fibre. "Instead of just throwing it away, I'd better 'save' the fibre before it becomes waste."

OBJECTIVE: To create an innovation product from waste coconut hemp, to promote arts and culture product using technology, and to introduce an innovation product for teaching and learning purpose.

2.0 LITERATURE REVIEW

This product created due to fulfil the project innovation. Main material is coconut hemp. This project is about on how to cut the waste of coconut hemp. This appearance or identity also signifies a symbolic element in the garment that indicates the origin of the wearer by carrying an implicit meaning that contributes to the development and advancement of culture. The material has been modified. It is because to make it difference from other product.



Other than that the system of learning and teaching quite old, to come up with something difference this system (QR Code) could provide the same information to students. The sampling method for this research is generally focus for semester 1 till semester 5 in Diploma in Tourism Management, Politeknik Metro Kuantan as a respondent. The project used quantitative method where 105 members of respondent. Quantitative research is based on the measurement of the quantity or amount.

3.0 METHODOLOGY

This product provided various benefits towards student especially tourism student and the process of this product is quite tough yet we still can have made it. For data analysis and interpretation, we gathered the data by spreading google form link to 105 respondents in our Politeknik. The data we generate it by using SPSS 22.1 version. The sampling for this research is generally focus for semester 1 till semester 5 in Diploma in Tourism Management, Politeknik Metro Kuantan as a respondent. The project used quantitative method where 105 members of respondent. Quantitative research is based on the measurement of the quantity or amount.

4.0 FINDINGS

We conduct our product survey with 1 method which is by questionnaire generate by SPSS. The goal of this chapter is to obtain a lot of perceptions and information from respondents about our products. We selected 105 respondents to answer the survey on MY BIMICAA. Most of our respondents are among students. All the information data that has been provided; used this google form and auto generate result from google form and also use SPSS 21 version to analyzed data.

Section A: Demographic

A total of 55.2% of the study sample were women and the rest man. A total of 44.8% of the sample were aged between 20 and 21 years, 11.4% were aged between 22 to 23 years. A large number of respondents were from semester 4 which is 41% while the least was from semester 3 with 11.4%. Lastly, the majority of respondents came from the Malay language.

Section B: Innovation Product from Waste Coconut Hemp

NO	EXPLANATION	YES		NO	
		PERCENTAGE (%)	FREQUENCY	PERCENTAGE (%)	FREQUENCY
1	Did you aware about the benefits of cocon	61.90%	65	38.10%	40
2	Do you think an innovation product from waste coconut hemp are relevant?	94.30%	99	5.70%	6
3	An innovation product from waste coconut hemp can decrease the wastage of coconut hemp?	100%	105	0%	0
4	In your opinion, this product produe from coconut hemp can be commercialized?	100%	105	0%	0

Table 1 of Question 1 until 4 Section B

Based on the following choice, what are the product can be produced using coconut hemp			
		FREQUENCY	PERCENT (%)
Valid	Souviner	53	50.5%
	Attire	42	40.0%
	Umbrella	1	1.00%
	Slippers	9	8.60%
	Bottle	0	0.00%
	Total	105	100.00%

Table 2 of Question 5 Section B

The findings of the study as presented in Table 1, show that overall has shown a high level of acceptance from the respondents towards MY BIMICAA. For this section, questions number 1 to number 4 most respondents will answer yes about this section. While Table 2 the question number 5 respondents are 50.5% agree that coconut hemp can be the temporary denominator of 1% for umbrella.



Section C: Promote Art and Culture Using Technology

Which social media platform are the most suitable to get information about Malaysian art and culture			
		FREQUENCY	PERCENT %
Valid	Facebook	8	7.60%
	Internet	75	71%
	Instagram	13	12%
	Youtube	9	8.60%
	Total	105	100%

Table 3 of Question 1 Section C

What is the most suitable promotion platform can be used to distribute information about Malaysian art and culture?			
		FREQUENCY	PERCENT %
Valid	QR Code	58	55.20%
	Flyer	33	31%
	Newspaper	12	11%
	Book	2	1.90%
	Total	105	100%

Table 4 of Question 2 Section C

Based on this survey questionnaire, table 3 shows that 71% of most students agree to use the internet while 7.6% of students choose to use facebook. While table 4, is 58% agree choose to use QR Code while 1.9% choose to use book.

Based on the following choices, which is the best way to learn about art and culture in Malaysian community			
		FREQUENCY	PERCENT %
Valid	Do research study from website	15	14.30%
	Do reseacrh study from book and magazie	2	2%
	Touch and see the real product	64	61%
	Watch video from Youtube	24	22.90%
	Total	105	100%

Table 5 of Question 3 Section C

In your opinion, how technology effect towards art and culture?			
		FREQUENCY	PERCENT %
Valid	Plagiarism	3	2.90%
	Can promote art and culture to the world	77	73%
	Despise art and culture of a race	5	5%
	The value of art and culture is increasingly forgotten in society	20	19%
	Total	105	100%

Table 6 of Question 4 Section C

Which media effectively promotes arts and culture among student and lectures			
		FREQUENCY	PERCENT %
Valid	Blog	49	46.70%
	Twitter	8	8%
	WhatsApp	16	15.20%
	Tik Tok	32	30.50%
	Total	105	100%

Table 7 of Question 5 Section C



Based on table 5, 61% of students agreed choosing to touch and see real products while 2% choose to do research from books and magazines. While table 6, 73% chose to promote arts and culture to the world while 2.90% choose plagiarism and while table 7, 46.7% of students chose to use blogs while 8% choose to use twitter.

Section D: To Introduce an Innovation Product for Teaching and Learning Purpose

No		N	Range	Minimum	Maximum	Mean	Std.Deviation	Variance
1	MY BIMICAA can become an important tool for teaching and learning in student learning process.	105	2	3	5	4.1	0.664	0.441
2	MY BIMICAA would give a good impact for student in recognizing each Malaysia community attire.	105	3	2	5	4.25	0.731	0.534
3	Does technology play a good role in 21st century learning ?	105	5	0	5	4.37	0.800	0.640
4	In 21st century does the use of technology really efficient to enhance in teaching and learning.	105	3	2	5	4.37	0.697	0.486
5	Did you agree if the old system of teaching and learning is not working really well in current teaching and learning?	105	4	1	5	3.75	1.072	1.15

Table 8 Descriptive statistics

Based on the likert scale above, majority of the respondents are aware that this product is valuable and marketable. Most of the respondents answer is acceptable which is all student said agree with 4.00 mean and above. For the first question of the likert scale all the respondents said very agree which mean the average mean for this question is 4.10. For the second question maximum respondents said very agree which is contributed 4.25 for the mean. For the third and fourth question also contributed 4.37 for the mean. Last question is the highest mean which is 3.75.

5.0 DISCUSSION

Based on the research that has been conducted through the distribution of survey form to meet the needs of the final semester project researchers have discussed several aspects through the distributed survey form. The survey form is divided into 4 section; Section A: Demographic background, Section B: Product from waste coconut hemp, Section C: Promote art and culture using technology and Section D: Introduction an innovation product for teaching and learning purpose. Most asking question is about the new product that the researchers introduce. For the product the researchers came out with idea which is a traditional attire for a doll using coconut hemp. This product helps student in their learning process.

RECOMMENDATION: Following the recommendation represent the researcher's own belief. We represent the product that can help a number of students by this project the purpose of this product is to help student or anyone to understand more about the culture in our country. As this product is about races traditional attire that been given to a doll to wear it. This product also use material from coconut hemp. This product is made from coconut hemp that turn into sack.

From sack material the researcher uses it as a material to make an outfit for the doll. Besides, an attire for the doll, the researcher also came out with an idea which is an animation video and a flipping book about the history of the traditional attire.

6.0 CONCLUSION

In conclusion, MY BIMCAA is a product about a traditional attire for doll and made by coconut hemp. From the research that have been done there is an attire that made from a lot of material such as lotus fiber, pineapple fiber and etc. But we choose a fiber from coconut. So, the main thing is this product is to help student to know about our culture. The result is quite good because of the acceptance. So for us this product is the best product although it's quite tough for us to make it done.

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MALAY



CHINESE



INDIAN



BAJU
NYONYA



KADAZAN
(SABAH)



IBAN
(SARAWAK)



ABORIGINE
PEOPLE



KING OF TOURISM – TOURISM BOARD GAMES

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ABSTRACT

Game based learning is one of the learning techniques among the students nowadays. By using smartphones, students can engage with the new styles of learning to accomplish their assignments, tests and others assessment in order to evaluate their performances. Some problems have been identified among tourism students were less of understanding in learning and lack of interest in learning session about tourism terminologies. A survey consists of 89 respondents of tourism students in Politeknik METrO Kuantan from semester 1 until 5 that have been learned tourism terms in almost of the tourism courses. Analysis of student's preferences shows that the highest mean score was toward content of the board games with the mean score 4.51 followed by design of the board game (4.50) and the lowest was function of board games itself (4.41). Overall, average mean score for student's preferences toward The King of Tourism was high with the mean score 4.48. It was because most of respondents agree that this product can be one of the tools of teaching and learning inside or outside polytechnic. Thus, it shows that this product can be used as a teaching aid to help tourism students learn tourism terminologies. In conclusion, the objectives of this study were achieved in order to help students enjoy learning tourism terminologies. However, this product can be commercialized to market if there are some improvements such as provide the manual wheel to replace an online wheel as one of the accessories of this game as well as provide customized partition and compartment inside the packaging. Hopefully, the King of Tourism can improve student's knowledge about tourism terminologies as well as can learn tourism courses in a fun way.

Keywords: game-based learning, student's preferences, tourism terminologies

1.0 INTRODUCTION

Game based learning is one of the learning techniques among the students nowadays. By using smartphones, students can engage with the new styles of learning to accomplish their assignments, tests and others assessment in order to evaluate their performances. According to Akour *et.al* (2020), game-based learning refers to the using of games power in educational purposes as one of learning method without any pressure on students but more to excitement in learning. This also proven that learning process on game applications become more common among students because they are easily adapt with technologies and indirectly will affect the learning outcomes. (Hamari *et.al*, 2016). Therefore, the researchers developed The King of Tourism Board Games which is non-digital game-based learning that focus on the terms in tourism after they identified some of students having problems in memorized certain tourism terms in their studies. The problems that have been found were first, less of understanding in learning because there are some terms in tourism they are not familiar with in their subject that might difficult for them to remember for a long time. Second, lack of interest in learning session due to learning techniques which are not attractive and interactive for students.



Third, most of the students having lack of achievement in learning tourism terms where they need to explain in details about the terms. Thus, to overcome these problems, the researcher has set three objectives which is to identify the suitable product that would help the student in process of learning tourism's terms. Second, to design the product that attractive in terms of colors and pictures and lastly to identify the student's preferences about the products.

2.0 LITERATURE REVIEW

There are two types of game-based learning in education which is digital game-based learning a non-digital game-based learning. Based on Pinder (2016), three elements in game-based learning which are competition, engagement and immediate reward. Competition is involving the students or lecturers that trying to gain the score while engagement when a student's play the games and having fun through it and immediate reward is like awarding points at the end of the game. Besides, the study conducted by Chan, Wan and King (2021) proven that game flow in the game-based learning affecting learning outcomes especially in cognitive dimensions. This study also suggested that application of games-based learning in academic knowledge should be consider the game flow in order to enhance cognitive domains in learning experience. Hence, game-based learning can help students to memorize tourism terms because it can test their cognitive level either understand or not with the terms given in the games. In terms of student's preferences about game-based learning, the study by Ibrahim et.al (2011) shows that 86% of students prefer to use games in learning compared in class and almost 80% of the students agree the educational games help them to think critically. It shows that games will makes the courses more interesting and easy to understand the theoretical courses because they need to remember the specific terms especially in tourism courses. In order to give a clear understanding about this study, the researcher also develop theoretical framework to identify the independent variables and dependent variable of this study. The details of theoretical frameworks as shown in Figure 1 below:

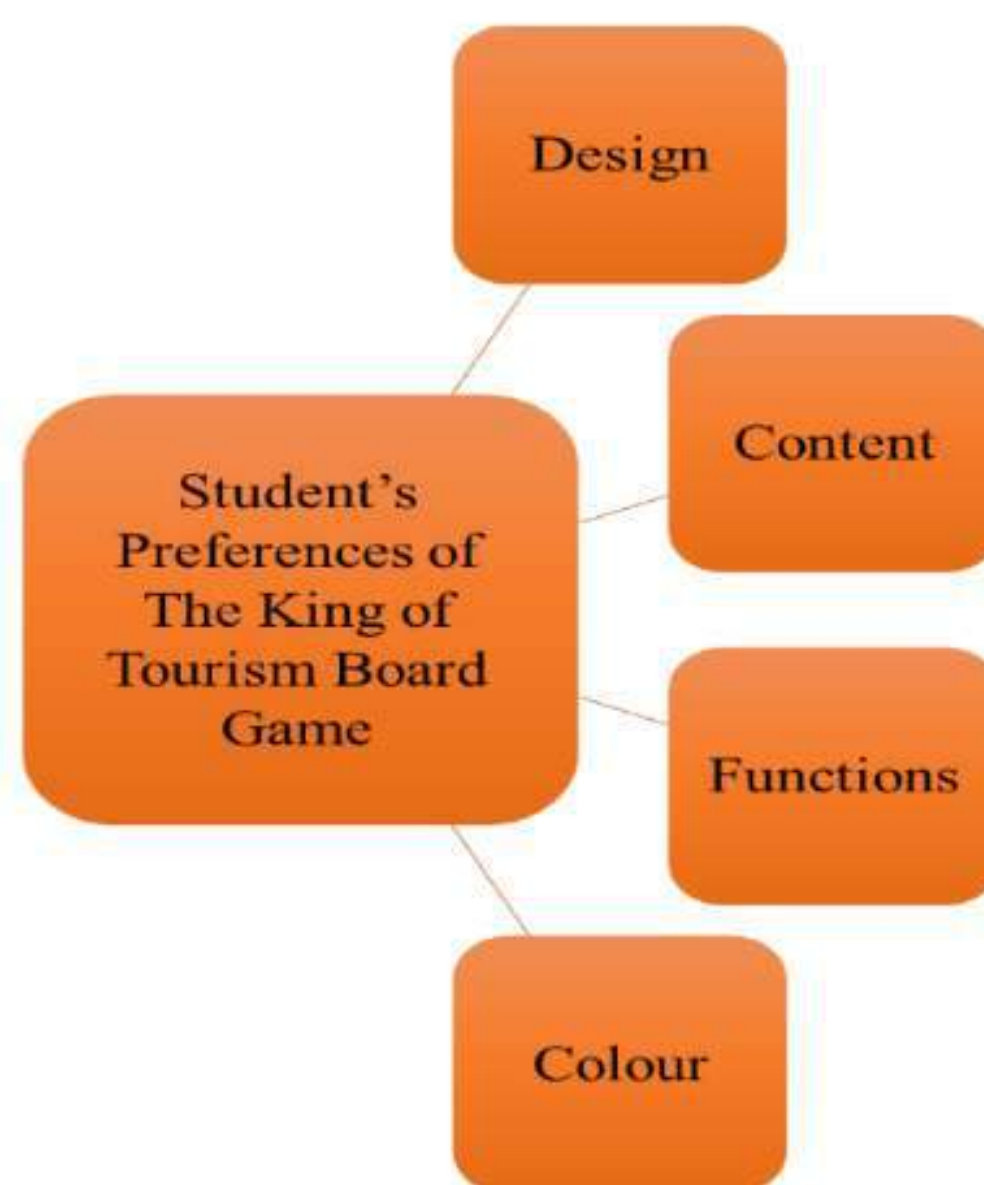


Figure 1: Theoretical Framework



3.0 METHODOLOGY

The method used is quantitative, where questionnaires distributed to 89 respondents of tourism students in Politeknik METrO Kuantan. The students were from semester 1 until 5 that have been learned tourism terms in almost of the tourism courses. The questionnaires tested on the student’s preferences on The King of Tourism Board Games in terms of the design, content, functions and colours of the board games. The Likert scale was applied from score 1 to score 5 (strongly disagree, disagree, neutral, agree and strongly agree).

In addition, the data collected were analyzed using the SPSS program by using descriptive statistics such as mean and standard deviation to answer each of the study questions addressed. Based on the Table 1, if the mean score show the range 1.00-2.33, it means the student’s preferences on this product were on the low level. If the mean score show the range 2.34-3.67, it means student’s preferences on this product were on the moderate level and if the mean score show the range 3.68-5.00, it means the student’s preferences on this product were on the high level.

Mean score	Level
1.00 – 2.33	Low
2.34 – 3.67	Moderate
3.68 – 5.00	High

Table 1: Mean Score Interpretation

4.0 FINDINGS (DATA ANALYSIS)

The finding of this research is based on the student’s preferences on The King of Tourism Games Board. The result of the research was carried out from SPSS analysis to identify mean and standard deviation to answer each of the study questions addressed. Reliability statistics of all 20 items used is using Cronbach’s Alpha with the value of 0.913. The mean and standard deviation of student’s preferences with all the variables as shown in the table below:



Table 2: Mean and Standard Deviation of Student’s Preferences

No	Item	Mean	Standard Deviation
Design			
1	The product can visualize in term of colour and picture	4.56	.563
2	The product consists a set of button, cards and wheel	4.51	.624
3	The product can encourage students to choose the answers	4.47	.605
4	Students can practice to remember the terminologies by using the product	4.49	.642
5	The product is provided the information for students about tourism terminologies	4.48	.693
	Average	4.50	.625
Content			
6	This product has tourism terminologies to develop their knowledge	4.52	.642
7	Students can be memorizing the subject through element of this product	4.48	.642
8	The product has introduced new knowledge and skills for students	4.54	.692
9	This product can improve the existing knowledge of tourism	4.55	.564
10	The product is useful for students to do a revision	4.45	.691
	Average	4.51	.646
Function			
11	This product has a storyline in term of level beginner, intermediate and difficult	4.49	.642
12	The product is using in reward system to identify the winner	4.44	.690
13	This game is required 1-4 players in one time	4.20	.694
14	This game can enhance students interest by using tourism terminologies	4.43	.672
15	The game can motivate their understanding in teaching and learning	4.47	.623
	Average	4.41	.664
Colour			
16	The colour that have been used in this game can attract students in term of teaching and learning	4.45	.657
17	The colour can help to bring students fun and entertaining	4.49	.642
18	The colour of package is using a pastel colour which can attract students to play the game	4.51	.605
19	Students able to memorize the terminologies through picture and colours	4.54	.623
20	The combination of colour can motivate students engagement in the class by using this game	4.47	.641
	Average	4.49	.634
	Overall Average	4.48	.642



5.0 DISCUSSION

Table 2 show the mean score and standard deviation of student's preferences on The King of Tourism Board Games. The highest average mean score of student's preferences on The King of Tourism was toward content of the board games with the mean score 4.51 followed by design of the board game (4.50) and the lowest was function of board games itself (4.41). The highest average mean score indicate that content of board games can help the students to increase their knowledge on tourism terminologies. Hence, it can improve the cognitive level of the students in tourism courses. Second, students feel that the design of board games were interactive and attractive in terms of game flows and color. This game flow allowed students to gain experiences in searching and learning tourism terminologies in a fun way to earn the game points. While the lowest average mean score for student preferences on The King of Tourism was the functions of the product itself. This is due to this board game was non-digital game compared to digital game that can be played through online. Hence, to play this games student need to find a place such as class or cafeteria to play this game and this is one of the limitation for the functions of this game.

Overall, average mean score for student's preferences toward The King of Tourism was 4.48. It proven that average mean score of student's preferences to this product was high as refer to mean score interpretation. Average mean score was high because most of respondents agree that this product can be one of the tools of teaching and learning inside or outside polytechnic. Thus, it shows that this product can be used as a teaching aid to help tourism students learn tourism terminologies.

6.0 CONCLUSION

In conclusion, we have achieved our objectives to identify the suitable product that would help the student in learning process of tourism terminologies. Thus, we designed The King of Tourism Board Game as one of the learning aids to memorize the tourism terms in a better way by identifying their preferences in terms of the design, content, functions and colour. This study found that students can accept learning through games which much easier to understand than read the notes. Besides, this product is easy to be used and the packaging makes it easy to be carried anywhere by hold it. The packaging of this product also water resistant as it made by plastics. There are few suggestions to improve this product by provide the manual wheel to replace an online wheel as one of the accessories of this game. Second suggestion is customized the partition and compartment inside the packaging to ease the players identify the accessories of the games such as button and it looks well organized. In additional, this product King of Tourism not only for students, it is also created for all use, to let the user familiar or improve their knowledge about tourism terminologies as well as can learn tourism courses in a fun way.



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FOOPY – TRIANGLE PATTY

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ABSTRACT

A patty or burger is a flattened, usually round, serving of ground meat or legumes, grains, vegetables, or meat alternatives. Patty are found in multiple cuisines throughout the world. The ingredients are compacted and shaped, usually cooked, and served in various ways. Some foods termed "patty" use ingredients inside a pastry crust that is then baked or fried. Some patty is breaded, then baked or fried. The Malaysian Food Pyramid is a simple guide for individuals to diversify their daily diet according to the recommended number of meals. There are six categories in the Food Pyramid: the bread, cereal, rice, and pasta group (grains), the fruit group, the vegetable group, the meat, poultry, fish, dry beans, eggs, and nuts group (protein), the milk, yogurt, and cheese group (dairy), and the fats, oils, and sweets group. The size of each category on the pyramid corresponds with the amount of food, or number of servings, that we need to eat every day. The way we measure a serving depends on the food group. For example, one serving from the grains group would be a slice of bread. One serving from the fruit group would be an apple. The groups at the bottom of the pyramid take up more space, which means that we need more servings of these foods. The group at the top of the pyramid is for foods that consist primarily of fat and sugar, demonstrating that you should only eat a small amount of these foods.

1.0 INTRODUCTION

1.1 INTRODUCTION

This study is about to produce products is used from the meat based such as ground beef. Due to trend of used minced meat to produce in various types of food, so we have come up with food based on minced meat along with the content of nutritious ingredients. If you want to compare with the existing patty meat in the market, the patty meat brand that is sold only contains minced meat and even the product that we will produce is a patty meat that is rich in nutritious ingredients because we have agreed to produce this patty meat according to the food pyramid group. Beef is a staple food that is widely eaten by people from outside Asia who are more famous for their various types of cuts of beef and are also famous in Asian countries. Patty are available in a variety of cuisines around the world. The results of this research indicated that a significant number of campus consumers considered the local concession's beef burger as "not tasty" and "unhealthy" and were interested in having more vegetarian and lower fat options. The meat patty features like taste, nutrition, convenience, safety, longer shelf life, and affordable prices have made it popular. Meat patty are widely eaten around the world and are a fast-growing sector meat industry all over the world including in Malaysia. Meat patty



is a staple food of many cultures because it is made from flat meat dishes and / or legumes, grains, vegetables, or flat round meat alternative. Other types of burger commonly contain, besides meat and fat, small amounts of added water as well as additives such as salt, phosphates, spices, and flavor enhancers. The quality of a burger, or patty alike, is to a great extent determined by the willingness of the consumer to pay for “quality”.

1.2 PROBLEM STATEMENT

Today, most of parents are from dual-income family and don't have so much time to prepare food daily. They prefer served frozen food to save preparation time and easy to cook. Nowadays, children like to eat unhealthy fast food. They do not know bad effect of consume fast food in future. This is because there is less healthy fast food was developed in market. Then, people do not know about the benefits of vegetable and fruit skin. It become solid food waste in the food industry. This is because they only eat the flesh of fruit and vegetable.

1.3 OBJECTIVE OF STUDY

The objective of this project is to offer nutritious frozen food innovations that can be consumed by the whole family and meet the needs of the food pyramid intake in one product. At the same time, it will educate people to eat a balanced diet every day. Second objective is to encourage children eat healthy food and follow food pyramid requirement intake. So, they can practice a healthy eating style from early age. Third objective is to educate public about benefits of vegetable and fruit skin or other food wastage. Then this product encourages public to reduce the wastage of solid foods such as dragon fruit skin and sweet potato skin. This item is used taking into account the nutritional value available and also to avoid food wastage.

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

Beef patties are amongst the most popularly consumed processed meat products in Malaysia and other parts of the world. Some of the reasons for such wide popularity are their affordable cost, availability in different tastes and longer shelf life. Extensive studies have been conducted to the use of various types of fat replacer and plant dietary fibre in processed meat products in improving dietary fibre and lowering fat content.

Presently, consumers are very concern about their diet and the food they eat. With the demand for nutritious and healthy food products, processed meat producers have to focus their creation toward processed meats that are lean, low fat and high in protein content. Health concerns about fat utilization and changes in consumer's preferences have led to comprehensive research on low-fat foods (Kumar & Sharma 2004; Yang et al. 2007). The high contents of saturated fats and cholesterol have been a major problem, resulting in meat products becoming the subject of scrutiny by nutritional, medical, and consumer groups. The American Heart Association (AHA 2004) and other health groups have recommended a decrease in the consumption of animal fats. Decrease in calories from fat, from 40% to 30% and in saturated fat intake from 18% to 10%, have also been recommended (Carrol 1998)



2.2 CONCEPT /THEORIES

FOOD PYRAMID

The Malaysian Food Pyramid guides us in determining the type and quantity of food that should be consumed daily according to food groups. There are 4 levels in the Malaysian Food Pyramid, where the maximum number of food groups that need to be taken are placed at the bottom of the pyramid. In line with the latest scientific evidence and nutritional status of Malaysians, the Ministry of Health Malaysia would like to introduce the Malaysian Food Pyramid 2020, which is a revision of the Food Pyramid 2010. Among the major changes in the Malaysian Food Pyramid 2020 is the vegetable and fruit food groups placed on a pyramid basis, compared to the 2010 Malaysian Food Pyramid which places carbohydrate source foods (rice, noodles, bread, cereals, cereal products and tubers). This means that vegetables and fruits should be consumed in the greatest amount compared to other food groups, which is at least 3 servings of vegetables and 2 servings of fruits per day. Fruits and vegetables are important sources of vitamins and minerals in improving the body's ability to fight disease. The Malaysian Food Pyramid 2020 recommends a lower percentage range of carbohydrate intake of 50-65% compared to the Malaysian Food Pyramid 2010 of 55-75%. The Malaysia Food Pyramid 2020 also emphasizes the recommended intake of complex carbohydrate and high fibre sources such as brown rice, whole grain breads, oats and corn. The recommended intake of 6-8 glasses of plain water a day is also added to the illustration of the Malaysian Food Pyramid 2020. Adequate water intake can ensure that our body is always hydrated to maintain health, especially in this Covid-19 pandemic season. The use of the Malaysia Food Pyramid 2020 is hoped to help Malaysians practice healthy eating on a daily basis to ensure our health is always maintained and protected from disease, while reducing the risk of non - communicable diseases such as obesity, diabetes and hypertension.

HEALTHY FOOD

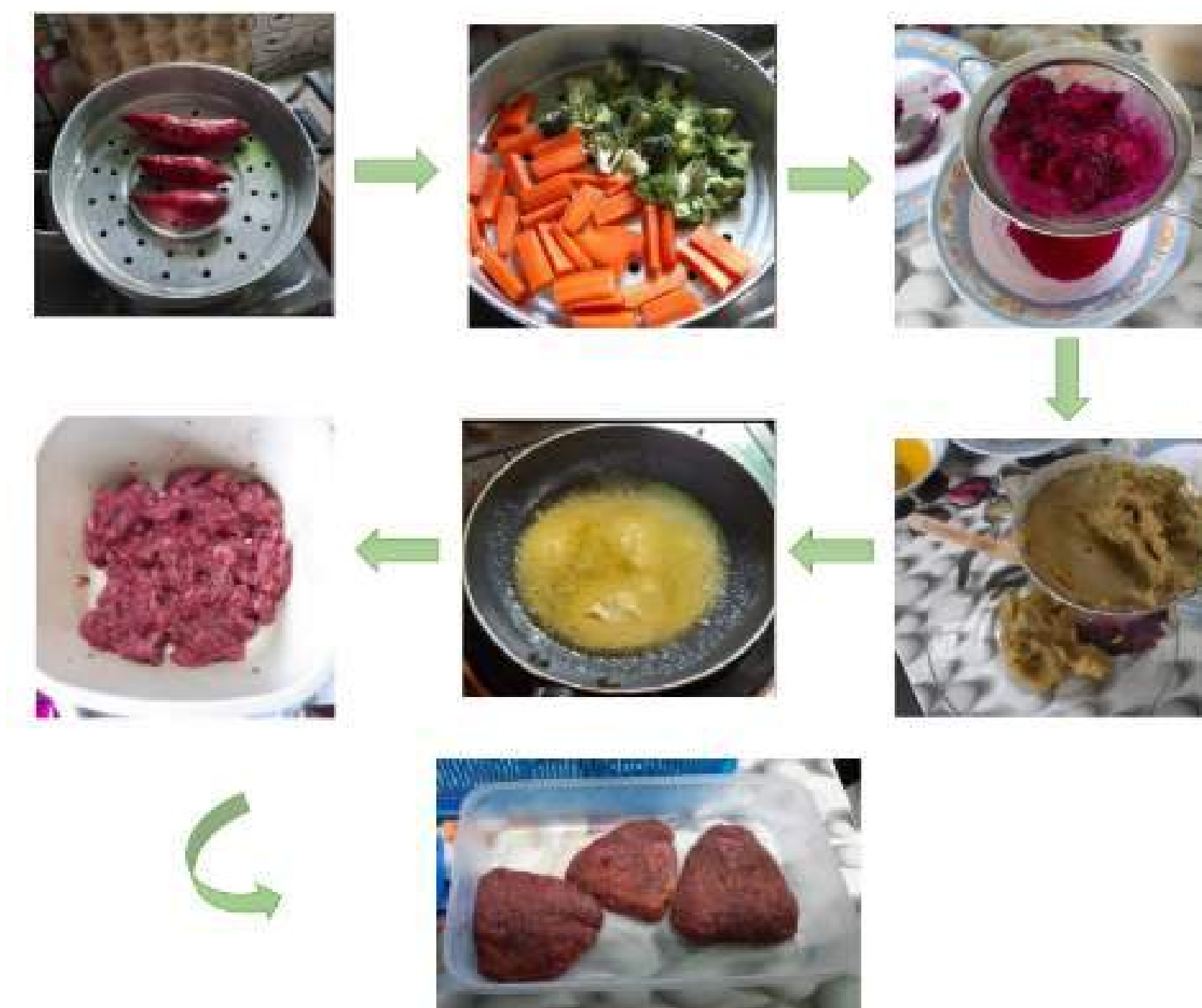
Food and nutrition are the way that we get fuel, providing energy for our bodies. We need to replace nutrients in our bodies with a new supply every day. Water is an important component of nutrition. Fats, proteins, and carbohydrates are all required. Maintaining key vitamins and minerals are also important to maintaining good health. For pregnant women and adults over 50, vitamins such as vitamin D and minerals such as calcium and iron are important to consider when choosing foods to eat, as well as possible dietary supplements.

A healthy diet includes a lot of natural foods. A sizeable portion of a healthy diet should consist of fruits and vegetables, especially ones that are red, orange, or dark green. Whole grains, such as whole wheat and brown rice, should also play a part in your diet. For adults, dairy products should be non-fat or low-fat. Protein can consist of lean meat and poultry, seafood, eggs, beans, legumes, and soy products such as tofu, as well as unsalted seeds and nuts. Good nutrition also involves avoiding certain kinds of foods. Sodium is used heavily in processed foods and is dangerous for people with high blood pressure. The USDA advises adults to consume less than 300 milligrams (mg) per day of cholesterol (found in meat and full-fat dairy products among others). Fried food, solid fats, and trans fats found in margarine and processed foods can be harmful to heart health. Refined grains (white flour, white rice) and refined sugar (table sugar, high fructose corn syrup) are also bad for long-term health, especially in people with diabetes.

3.0 METHODOLOGY

3.1 Product Development

First, take the chopped meat, marinate with dragon fruit juice and a little soy sauce. The second filling in the patty is sweet potatoes, carrots and broccoli that have been ground together. Next, shape the patty into a triangular shape of medium size. Then, place the cheese between the patty meats along with the filling. This is a method that we have modified according to the suitability of our products.



3.2 Quantitative/Qualitative/ Mix Method (Questionnaire Survey/ Interview/ Both)

For the purposes of this research, in depth interviews via online app. Example Video-conferencing environments allow real-time communication with both audio and video (Mann & Stewart, 2000). This is much like a traditional interview, except the researcher and participant are simply in different locations. Interview are used in almost all forms of qualitative research, but surprisingly little has been written about interviews conducted via new technological resources. Many research still refer in-person, face-to-face (FTF), interviews as the “gold standard” of data collection, whereas interviews via technology have a perceived infer-priority (Mc Coyd & Kerson, 2006).

As far as data collection tools were concerned, the conduction of the research involved the use of semi-structured questionnaire, which was used as an interview guide for the researcher. Some certain questions were prepared, so as for the researcher to guide the interview towards the satisfaction of research objectives, but additional questions were made encountered during the interviews.

3.3 Instrument Development (Questionnaire)

Research instruments are measurement tools for example, questionnaires or scales designed to obtain data on a topic of interest from research subjects. To calculate the score for each product each descriptor was assigned a score value:

strongly agree = 4, agree = 3, disagree = 2, strongly disagree = 1.
(Watts, 1989).

Students were given practical exercises on how to prepare and serve samples to panelist for evaluation, the material for this was adapted from the text, Sensory Evaluation of Food: Principles and Practices by Lawless & Hay Mann, (1998). Samples of food should be uniform in size and of the same temperature at serving. They should be coded by a random three-digit number and presented in clean odor-free containers. In cases where more than one sample is to be assessed, they need to ensure that the assessors do not receive the samples in the same order, since this will introduce a bias. Assessors are to be provided with a glass of water to rinse their mouths out with between each sample to remove all traces of the previous sample. Assessors should also be seated in a manner that they cannot communicate with each other and in a room, which is free of distractions and has good lighting and ventilation.

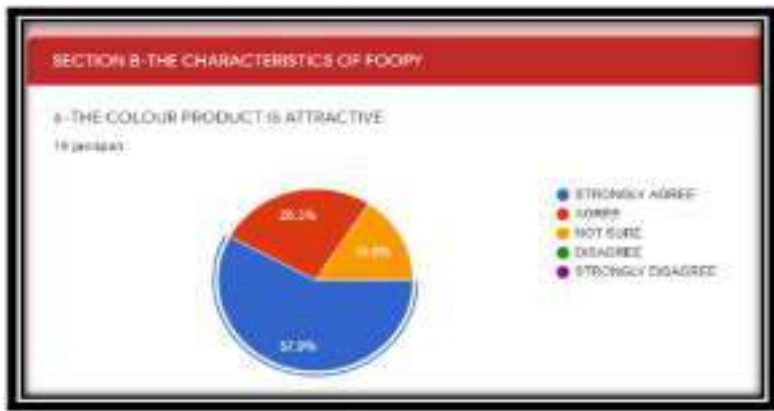
4.0 FINDING (Data analysis)

Based on a study conducted on a sample from student of the Diploma in Foodservice Halal Practice from the Polytechnic Metro Kuantan and also the residents around Kuantan, the study was successfully analyzed from 220 respondents who had answered validly answers from the questionnaires given to them. Students adhere to the use of: appropriate sensory testing methods (differential, descriptive, affective) and selecting these methods to suit the project objective; the type of respondent suitable for the type of testing and ensure that sensory tasks appropriate to the type of respondent used. A total of 20 respondents were selected to be testing respondents that can thoroughly test the product based on (taste, smell, color, touch and visuals of the product) for the remaining 200 respondents answered questions based on product videos. User test is a logical companion to sensory assessment and properly applied to their project objectives which looks at product maintenance, product improvement, new product development, and life expectancy test. They take advantage of untrained individuals, who represent the population end product users, to measure characteristics such as desires, preferences, purchase intentions, and use, using methods that help understand product and consumer acceptance behavior. (Rohanie Maharaj, 2013)

QUESTIONNAIRE	BASED ON PRODUCT	BASED ON VIDEO
GENDER	20	221
AGE	20	221
RACE	20	221
PROFESSION	20	221
COLOUR	20	-
TASTE	20	-
SMELL	20	-
TEXTURE	20	-
SHAPE	20	-
PACKAGING AND LABELLING	20	-
PRODUCT CHARACTERISTICS	20	221



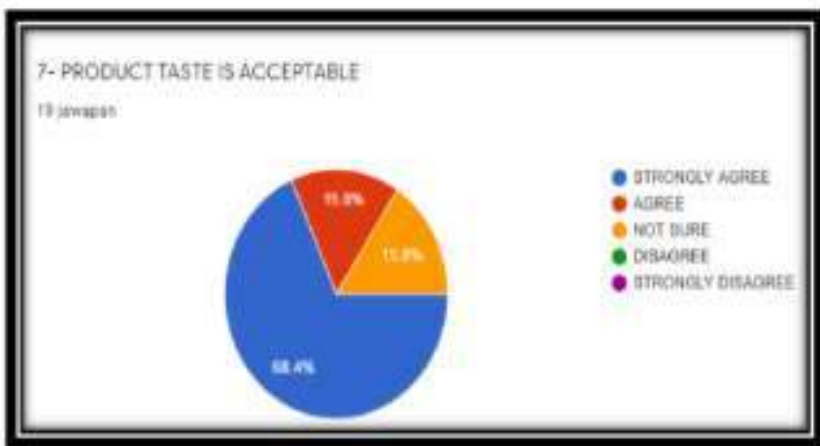
4.2.1 COLOUR



As for the question of color, the respondent has voted the strongly agree at an approximate of 57.9 % following by the second largest vote which is at 26.3% which is agree , not sure just 15.8%, for disagree and strongly disagree was no accounted.

	FREQUENCY	PERCENT	VALID PERCENT
Strongly Agree	11	57.9%	57.9%
Agree	5	26.3%	26.3%
Not Sure	3	15.8%	15.8%
Disagree	0	0%	0%
Strongly Disagree	0	0%	0%
TOTAL	19	100	100

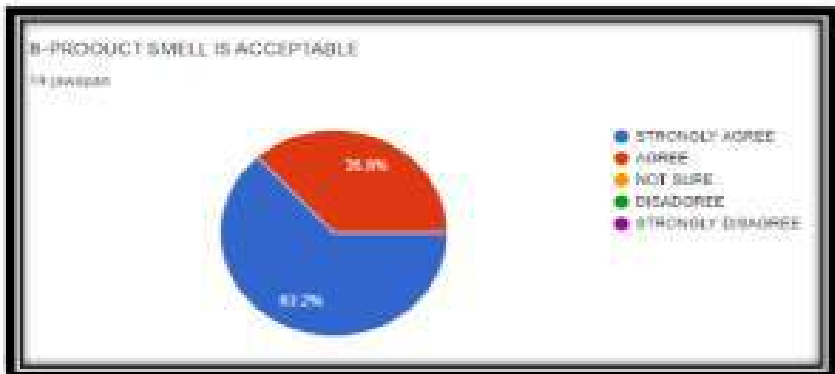
4.2.2 TASTE



As for the question of taste, the respondent has stated the most at strongly agree at the percentage 68.4% following by agree and not sure at 15.8%, disagree and strongly disagree were not accounted.

	FREQUENCY	PERCENT	VALID PERCENT
Strongly Agree	13	68.4	68.4
Agree	3	15.8	15.8
Not Sure	3	15.8	15.8
Disagree	0	0	0
Strongly Disagree	0	0	0
Total	19	100	100

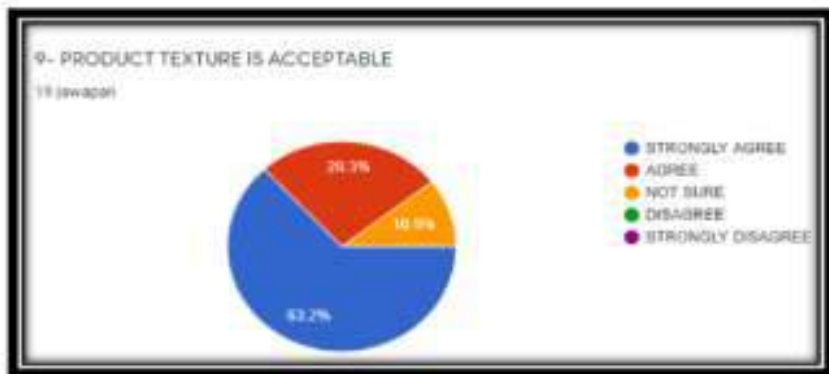
4.2.3 SMELL



As for the question of smell, the respondent has stated the most at strongly agree at the percentage 63.2% following by agree at 36.8%, for not sure, disagree, and strongly disagree were no recorded.

	FREQUENCY	PERCENT	VALID PERCENT
Strongly Agree	12	63.2%	63.2%
Agree	7	36.8%	36.8%
Not Sure	0	0	0
Disagree	0	0	0
Strongly Disagree	0	0	0
Total	19	100	100

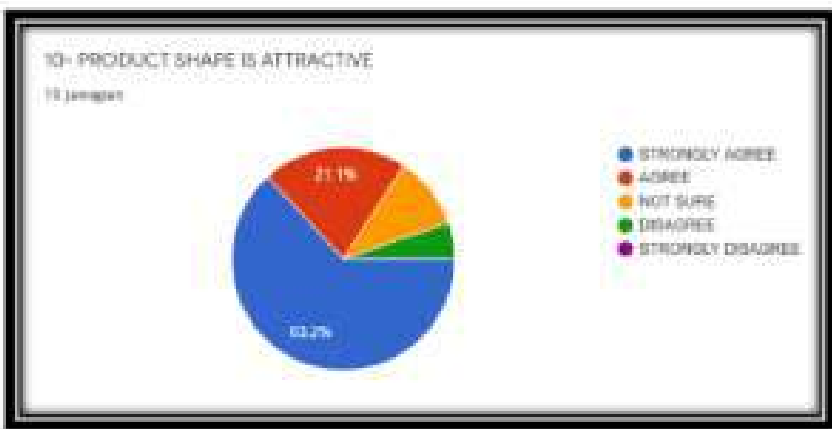
4.2.4 TEXTURE



As for the question of texture, the respondent has stated the most at strongly agree at the percentage 63.2% following by agree at 26.3%, not sure just 10.5% and disagree and strongly disagree are 0 percent

	FREQUENCY	PERCENT	VALID PERCENT
Strongly Agree	12	63.2%	63.2%
Agree	5	26.3%	26.3%
Not Sure	2	10.5%	10.5%
Disagree	0	0	0
Strongly Disagree	0	0	0
Total	19	100	100

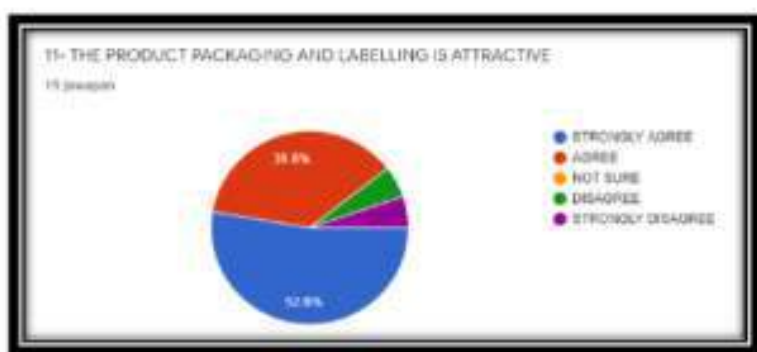
4.2.5 SHAPE



As for the question of shape, the respondent has voted the most at strongly agree at an approximate of 63.2 % following by the second largest vote which is at 21.1% which is agree , neither not sure just 10.5%, disagree just 5.3% and strongly disagree was not accounted.

	FREQUENCY	PERCENT	VALID PERCENT
Strongly Agree	12	63.2%	63.2%
Agree	4	21.1%	21.1%
Not Sure	2	10.5%	10.5%
Disagree	1	5.3%	5.3%
Strongly Disagree	0	0	0
Total	19	100	100

4.2.6 PACKAGING AND LABELLING



As for the question of shape , the respondent has voted the most at strongly agree at an approximate of 52.6 % following by the second largest vote which is at 36.8% which is agree , neither not sure was not accounted , disagree just 5.3% and strongly disagree same amount with disagree.

	FREQUENCY	PERCENT	VALID PERCENT
Strongly Agree	10	52.6%	52.6%
Agree	7	36.8%	36.6%
Not Sure	0	0	0
Disagree	1	5.3%	5.3%
Strongly Disagree	1	5.3%	5.3%
Total	19	100	100



5.0 DISCUSSION

Once the data collected from the respondents' questionnaires are taken, improvements need to be made to improve the quality of the product. Among the most widely accepted recommendations are, the thickness of the patty meat, improvements to be made making it a little thinner. Flavor needs to be enhanced as it comes from data obtained from questionnaires. In addition, further enhance the market strategy for the production of this product to all markets in Malaysia. Also understand the needs of the local market and develop a collaborative approach. Thus, publicize this innovative product on various social media platforms such as broadcast media or social media because according to the current situation, most Malaysians live their daily lives only at home due to the covid-19 pandemic which is becoming more widespread. If this product is advertised more widely, it is very likely that this product will get a widespread response. In fact, the price of the product is affordable and comparable to other market prices and also affordable by all walks of life. In addition, the enhancer improves on the way the product is packaged more attractive.

6.0 CONCLUSION

With the creation of this FOOPY product, consumers will know more about the advantages of using food pyramid, dragon fruit skin and sweet potato skin where consumers know that dragon fruit skin and sweet potato skin have no nutritional value and they will just throw it away. The wastage of the skin of the fruit is reduced due to consumer awareness of the benefits of the skin. This frozen product has great potential in the food industry in Malaysia because FOOPY products are unique because they have nutritious ingredients according to the food pyramid and there is no other product that produces patty meat like this. In addition, FOOPY could be the market leader in more nutritious frozen foods. In fact, there is no longer the issue of food waste that has become the talk of the town because it is possible that it will be used for every food product production because it has various benefits that many people do not know. Thus, for parents who do not have time to prepare a nutritious breakfast for their children, FOOPY is the solution because almost 99% in Malaysia, children do not like to eat foods sourced from vegetables and fruits. Overall, the implementation of this innovation product has been successfully implemented and meets the objectives of the innovation project. In fact, respondents have also given positive feedback and this innovation has had a positive impact on students and lecturers.



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8.0 APPENDICES



PRODUCT LOGO



PRODUCT LABELLING



BUNTING



PRODUCT (FOOPY - TRIANGLE PATTY)



FESTI PASTA

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ABSTRACT

This innovative product is a combination of spinach & aglio olio vegetables. It is the choice as a product innovation because it has own nutrients and for those who do not like to eat vegetables, they can enjoy vegetables in the form of pasta that has been produced. The problem of the study is that as we know, most of the people are very busy with their work, for example such as students who are busy with their learning sessions so there is no time to prepare meals in a short time. The objective of this product is to increase the level of customer acceptance in terms of taste, color & texture of the pasta itself. In addition, it is produced to introduce western food products that are easy to prepare. This study was conducted on Polytechnic students from various fields by providing 9 sets of questionnaires to be answered by 44 students. With the innovation of this product, it can help students or people who are busy working, can prepare food easily and quickly. In addition, it can also introduce more widely about western food products that are easy to prepare.

1.0 INTRODUCTION

Convenience food is known as food that can reduce time of preparation. People nowadays eat this food due to perceived time pressure. The hectic lifestyle in working and study make them more tend to consume easy to prepare meals. Nowadays, there are so many products that are simple, and easy to cook. For example, ready to eat foods, namely 'Pasta' and 'instant noodles', are easily recognizable foods in the Malaysian market today. As a result, the marketing of local food products is less relevant with less effort to create new ways to sell these foods widely. Not only that, western food products are hard to find and only available in certain places in Malaysia.

Therefore, the researchers decided to make 'Festi Pasta' to be introduced as one of the western ready-to-eat foods that is more suitable for every age. In addition, targeting on this convenience western food product are to help people especially student or employees which do not have time to eat at restaurant. Easy-to-cook food can help them peacefully eat and can minimize their time to prepare the dish. Therefore, they no need to waste their limited break time to queue and wait at the restaurant. Moreover, 'Festi Pasta' is difficult to make because the ingredients are many and takes a long time in its preparation. As a result, people are not interested in learning and do not have the ability or time to cook these foods at home. They would rather buy at a restaurant than prepare it themselves. In addition, this kind of food is preferred by all types of groups because of its taste and a nutrient contained in the Pasta itself is preferred by all groups and is suitable for diet food.



OBJECTIVES OF THE STUDY

- i. To determine the acceptance level of consumer preferences of 'Festi Pasta' product
- ii. To introduce food product that are easy to cook and prepared

2.0 LITERATURE REVIEW

INTRODUCTION

Studies done on spinach have long been considered a plant that can restore energy, increase vitality and improve blood quality. There are good reasons for this, such as the fact that spinach is rich in iron. These minerals play an important role in red blood cell function which helps transport oxygen throughout the body, supporting energy production and DNA synthesis. However, high levels of a compound called oxalic acid, which is naturally found in spinach, seem to inhibit the absorption of minerals such as iron which say, cooking or wilting slightly reduces this effect. (Torrens, 2021)

In addition, spinach is an excellent source of vitamin K in addition to being a source of magnesium, calcium and phosphorus. These nutrients are important for maintaining bone health. Spinach is also safe for most people, however there are a number of individuals who need to be careful. Spinach contains high amounts of oxalate, which is why people with a history of oxalate -containing kidney stones should minimize its consumption. (Torrens, 2021)

CONCEPT

Pasta is an innovation in the world of food found in the end 13th century. After exploration from the east, in the 13th century Marco polo introduced pasta in Italy, if traced in fact pasta has existed for centuries to the fourth BC, this is evidenced by the discovery of Etruscan tombs which makes pasta -shaped food. (Pasta, 2014)

After pasta was introduced in Italy, some British tourists were visit Italy, learn about pasta food, and introduce pasta to America. They introduced pasta as biased noodles cooked about an hour and a half, and stuffed with cream orcheese sauce. (Pasta, 2014)

In addition, the history of pasta also developed in China, in the 3000's BC, noodles made by the Chinese werecombined with the device a dough tool invented by the Greeks, thus producing dough. (Pasta, 2014)

In his notes, Marco Polo mentions pasta originally from a type of sago tree that produces starchy foods that resemblepasta. But Marco Polo was not the one to discover pasta. This is because a century before Marco Polo's exploration, an Islamic geographer al-Idrisi writes once saw pasta produced in Sicily. (Pasta, 2014)

The Italians also felt they deserved to be known as the creators of pasta, many Italian writers thought so with the discovery of a tomb that also found pasta-making equipment from pre-Roman times. (Pasta, 2014)

The history of pasta creation does not end there. A very old and well -known theory still in use to this day should also be referred to. It happened 500 years before the exploration of Marco Polo who said pasta originated in China. (Pasta,2014)



3.0 METHODOLOGY

PRODUCT DEVELOPMENT

BIL	INGREDIENTS	WEIGHT
1.	SPINACH PASTA	60 GRAM/CUP
2.	CHICKEN	250 GRAM
3.	PARSLEY	2 GRAM
4.	CARROT	2 GRAM
5.	CHILLI FLAKES	3 GRAM
6.	GARLIC OIL	3 GRAM
7.	SALT	1 GRAM

QUANTITATIVE

- In this study, our group has decided to use data sources as a type of primary data to collect by researches directly from main sources through surveys, experiments and observation. However, we also collected data in questionnaires among students with quantitative method.

INSTRUMENT DEVELOPMENT

- Our group uses quantitative methods to evaluate the projects to be undertaken, as questionnaires are a type of survey used as an instrument for primary research. For this quantitative method we used a questionnaire to collect data and a likert scale used in 4 levels such as strongly disagree, disagree, agree and strongly agree. This consists of a series of questions and other clues with the aim of gathering valuable information from the respondents.

Information demographic methods were also used to find out the gender of the respondents. We want to know if our 'Festi Pasta' product will be accepted by the people in this country.

SAMPLING

- This project used quantitative methods so the target person 40 number of respondents from student polytechnic METrO Kuantan Semester 4 and 5. This quantitative research is based on quantitative measurements at Polytechnic METrO Kuantan because time constraints nowadays become a major cause of problems among students.





4.0 FINDING

- We conduct our product survey with 1 method which is by questionnaire. The goal of this chapter is to obtain a lot of perceptions and information from respondents about our products. We selected respondents to answer the survey on 'Festi Pasta'. Most of our respondents are among students as well as working people. All the information data that has been provided; we enter in Excel to get the overall result.

5.0 DISCUSSION

- Our group has chosen to produce a product called 'Festi Pasta'. Most people don't realize that it is foods made from vegetables that are healthier and safer than those mixed with preservatives such as wax used for dried pasta marketed as a durable ingredient. The product is becoming increasingly popular among consumers who are on a diet or crave western food. So we use spinach pasta as our priority to attract the attention of consumers who always want nutritious food and food without hesitation. Our group chose the ingredient because there is no one else in the market that sells instant spinach pasta and is given along with seasonings to make it easier for consumers to eat anywhere, just use hot water to soften the spinach pasta. The process of making pasta is also quite easy as it does not require a lot of ingredients to be used in the making of the consultation and will definitely save you money.

6.0 CONCLUSION

- In conclusion, we hope that the product can be accepted by consumers because it has many benefits that we produce pasta from spinach. Spinach has benefits such as eye health, strengthens bones, prevents asthma, improves digestion, and is able to prevent gastric problems. 'Festi Pasta' comes from our group's idea for consumers to prepare pasta easily and can be taken anywhere either at home or consumers can pick up the product while traveling abroad. Our group provides 'Festi Pasta' packaging so that consumers can easily eat it anywhere. Lastly, this 'Festi Pasta' can attract consumers to try the product and support our product innovation group.

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GASINGTASTIC

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ABSTRACT

This study tried to preserve the traditional games which is increasingly forgotten by the younger generation. This GasingTastic illustrates the range of convenience and uniqueness for the effort in the style of preparation and use. This product helps teenagers to more easily play tops with the new era. There are young people who are interested, but only for the purpose of their research and learning, not to inherit the way of the game and its manufacture. The data collection will be taken from 54 students where all from the school student near Kuantan that comes from student's 13 year old to 17 year old. The findings of data collection has shown a teenagers at Kuantan agree that the GasingTastic traditional games should be preserve because it a fun game.

1.0 INTRODUCTION

In these days people may be forgotten about one of our traditional games which is Gasing Pangkah, it was a really fun games that we can play with friend and family since in Malaysia people are not gives this game much attention researcher tends to make an innovation product which is Gasingtastic. Gasing Pangkah is a competitive Malay game of spinning tops in which two or more players compete to strike each other's top out of a circle or to make it fall over and stop spinning. Considered part of the Malay state heritage, official tournaments are held, with a declared goal of exposing the younger generation to the game. With this innovation we can keep our tradition so it can be preserved throw generation to another generatio

PROBLEM STATEMENT

- a) This traditional games which GasingTastic are increasingly being swallowed up by the currents of modernity.
- b) Teenagers often spend time on social media and that makes them unfamiliar with traditional Malay games
- c) Traditional games are increasingly forgotten because teenagers now prefer to play gadgets over traditional games because traditional games in the tourism industry are no longer used to attract teenagers.

OBJECTIVE

- a) To expose Gasing Pangkah among teenagers as uniqueness of traditional Malay games
- b) To identify technology elements in enhancing Gasing Pangkah traditional games
- c) To survey public response about the Gasingtastic as innovation traditional Malay games.



SIGNIFICANCE OF THE STUDY

Culture is responsible for monitoring and overseeing the development of Gasing. Developing and introducing this game to Malaysian student and the world seems to already be their difficulties. By re-introducing the top game to students can give a big impact to the youth to attract their interest in the traditional game that has long been abandoned. GasingTastic can also be introduced in any institution to encourage more youths and students to know more about traditional games. In this way, traditional games are no longer forgotten and can encourage youths and students that traditional games are very important in the tourism industry. Gasing Pangkah is recognized as an intangible traditional game by the National the Heritage Department, meanwhile, Malaysian National Crafts has categorized it product as one of the art crafts in the Folk Games category. Ministry of Tourism and Culture is responsible for monitoring and overseeing the development of Gasing.

2.0 LITERATURE REVIEW

THEORY

In this study teenager's perception towards Gasing Pangkah will effects the teenagers daily life activity it's not only they can reduce their time on the internet they also can influence the other teenagers on palying Gasing Pangkah

There is some variables will perceive the role of Gasing Pangkah in influencing the extinction of Malay traditional games among the youngsters. As shown in the use of Gasing Pangkah can influence the teenagers has their new activities through parent.

The existence of Gasing Pangkah will eventually portray the value of appreciating where teenagers these days still can appreciate the rich Malay culture. They will learn on how to appreciate the culture that was continuously being preserved from generation to the next generation as they can get the opportunity to learn and appreciate it by themselves.

3.0 RESEARCH METHODOLOGY

The main sources will be used. It refers to information obtained by researchers and questioner on the importance of variables for specific study purpose. Methods have been used for this study was provide valuable and precise insights. This survey studies develop to identify the need to preserved it so that we could continue the tradition of these traditional games for the next hereditary. It is a need for them to learn to know about the traditional games so that they could learn the history and at the same time learn to appreciate culture and arts of the traditional games. Other than that, we also could ensure that the upcoming generation will have the chance to recognize, know and play it so that they also could be the part of the history and the culture of traditional games itself. This survey helps users organize data to see various factors from different perspectives.



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4.0 DISCUSSION

The idea was inspired by original Malay Traditional Games which is Gasing Pangkah why we choose this game because Gasing Pangkah was forgotten by the teenagers as this games are our heritage and culture we need to give it more attention so it can be passed down to the younger generation.

Teenagers in these day are mostly spend their time with online games and social media why not we focused on Malay Traditional Games while they play Gasing Pangkah they also can learn about the beautiful of Malay Tradition. We combined Malay Traditional Games and technology element that help the teenagers interested at GasingTastic but still using the original Gasing Pangkah design because we don't want to change the uniqueness of Gasing Pangkah.

4.1 UNIQUENESS OF GASING TASTIC

	Agree	Strongly agree	
GasingTastic is user friendly	18	26	79%
GasingTastic bag is easy to carry	18	23	77%
GasingTastic can be played by various age	12	30	79%
GasingTastic can be compete with others modern toys (Bayblade)	21	23	83%
GasingTastic bag is light and flexible	14	34	90%

Based on the data that collected from our respondent the questionnaire shows that most of our respondent choose agree and strongly agree so we combined agree and strongly agree answer base on the majority.

The highest majority from uniqueness of GasingTastic is GasingTastic bag is light and flexible we collected 90% of the teenager's answer agree and strongly agree. This showed teenagers likes the suitable size of the bag



4.2 TECHNOLOGY ELEMENT IN ENHANCING GASING PANGKAH TRADITIONAL GAMES

	Agree	Strongly agree	
The use of Qr codes will attract people to use technology	12	27	73%
The Qr codes content of the video will help people learn GasingTastic	11	32	81%
Interactive information delivery about GasingTastic easily to use	15	29	83%
GasingTastic would have attractive interface (graphic animation music)	18	27	84%
Technology element makes people have more fun	14	29	81%

The highest majority from technology element in enhancing Gasing Pangkah traditional games is GassingTastic would have attractive interface of graphic animation we collected 84% of the agree and strongly agree answer combined because this help teenager fell more interested by the help of technology element.

4.3 GASING TASTIC AS INNOVATION TRADITIONAL MALAY GAMES

	Agree	Strongly agree	
Do you having use fun while playing GasingTastic	7	31	71%
Does the game GasingTastic add to your knowledge of traditional games	13	25	71%
Do you think this GasingTastic game can be turned into a competition event	18	30	90%
Do you feel that playing GasingTastic can fill your free time	11	35	86%
Do you think this GasingTastic game challenging	16	25	77%
Does GasingTastic have the potential to be sold in the market	16	29	84%

The highest majority from Gasingtastic as innovation Traditional Malay Games is Do you think GasingTastic can be turned into a competition event we collected 90% of the agree and strongly agree answer combined this also show GasingTastic have the potential to have its own games competition.



5.0 CONCLUSION

In conclusion Malay community should maintain and preserve the Malay traditional games and culture that can be passed down to the younger generation just to make sure Malay traditional games and culture will not extinct with this innovation it can make the younger generation especially teenagers will be interested to carry this traditional games and culture. With an innovation that follows the modern life but still maintains the uniqueness and the identity of Gasing Pangkah.

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*Memperkasa Kecemerlangan
melalui Penyelidikan dan
Inovasi*

