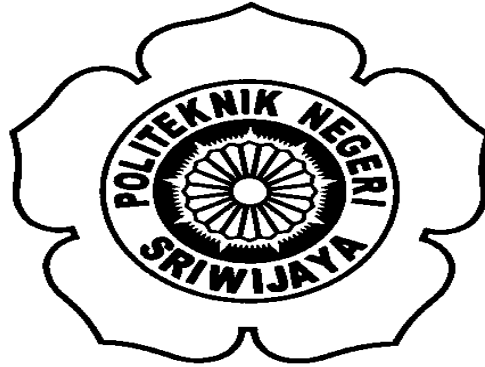


**FINAL REPORT**

**RESEARCH AND DEVELOPMENT OF THE BROWNIES USING AVOCADO,  
COCONUT AND DATE PALM FRUITS TO MAKE NEW CAKE VARIANTS**



**This report is written to fulfill the requirement for subject of final report subject at  
State Polytechnic of Sriwijaya**

**BY:**

**CYTHRIA AYU FATMAWATY**

**061430900624**

**ENGLISH DEPARTMENT**

**STATE POLYTECHNIC OF SRIWIJAYA**

**2017**

APPROVAL SHEET

FINAL REPORT PROPOSAL

RESEARCH AND DEVELOPMENT OF THE BROWNIES USING AVOCADO,  
COCONUT AND DATE PALM FRUITS TO MAKE NEW CAKE VARIANTS



CYTHRIA AYU FATMAWATY

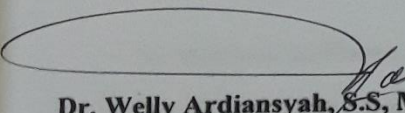
061430900624

Palembang, 7 July 2017

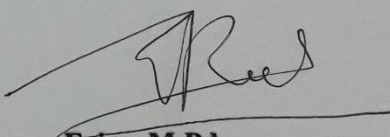
Approved by:

First Advisor,

Second Advisor,

  
Dr. Welly Ardiansyah, S.S, M.PD

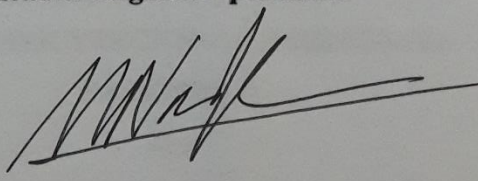
ID. 197408172006041001

  
Eriza, M.Pd

ID. 196205051988032003

Acknowledged by:

Head of English Department

  
Drs. M. Nadjmuddin, M.A

ID. 196209071988031001

**RESEARCH AND DEVELOPMENT OF THE BROWNIES USING  
AVOCADO, COCONUT, AND DATE PALM FRUITS TO MAKE NEW  
CAKE VARIANTS**

**The Final Report By:**

**Cythria Ayu Fatmawaty**

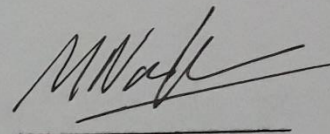
**061430900624**

**Approved by the examining committee**

**Signature**

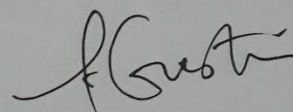
**Drs. M. Nadjmuddin, M.A.**

**ID. 196209071988031001**



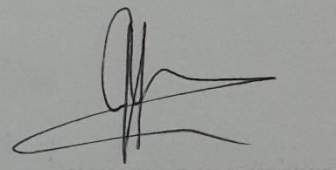
**Sri Gustiani, MTESOL., EdD.**

**ID. 197108252005012001**



**Mochamad. Ridhwan, S.Pd., M.Pd**

**ID. 196912102005011002**



**ENGLISH DEPARTMENT  
STATE POLYTECHNIC OF SRIWIJAYA  
PALEMBANG**

**2017**

## ACKNOWLEDGEMENT

First of all, the writer would like to say thanks to Allah SWT for all the blessings and the easiness so that the writer was able to finish this final report. In this moment, the writer would like to thank to everyone who has given many contributions in this final report:

1. My beloved parents. Thank you for always support and pray for my success.
2. My beloved Grandmother “Herlinawati”. Thank you for always support, suggestions, and pray for my success.
3. Mr. Welly Ardiansyah as the first advisor, and Mrs. Eriza as the second advisor. Thank you for all your corrections, time, suggestions, advices, ideas, support, and guide me patiently during the consultation.
4. My beloved brother “Suhadi”. Thank you for always giving me motivation, support, suggestions, and pray for my success.
5. My beloved aunty “Irene Susanti Saleh” Thank you for always giving me motivation.
6. My beloved brother and sister “Reihan,Cally,Momo,Wim,Ane, and Nayza” Thank you always giving me support and pray for me.
7. All the lectures and staffs in English Department who have educated helped patiently.
8. My beloved friends, Melly and Sari. Thank you for all your helping during making this final report.
9. All my beloved friends in 6 BA. Thank you for giving me such a beautiful and unforgettable memories during studying in English Department and all the support and help in finishing my final report.
10. Our friends at English Department State Polytechnic of Sriwijaya especially and HMJ ENGLISH DEPARTEMENT.
11. My bestfriends, Aldi and Theodorus for always cheering me up.
12. All parties who helped to finish this final report.

## **PREFACE**

First of all, the writer would like to say thank to Allah SWT for the blessing that Allah SWT has been given to the writer, so that we could finish final report. The writer also would like to express the gratitude to their prophet Muhammad SAW. This report is written to fulfill the requirement of final report subject at State Polytechnic of Sriwijaya, which entitled “Research and Development of the Brownies Cake Using Avocado, Coconut, and Date Palm Fruits to Make New Cake Variants”.

The writer realized that there are still some mistakes in writing this final report, it is because of the limitation in experiences, ability and knowledge the writers have. The writers hope the readers can give suggestion and critics for the final report about avocado, coconut, and date palm fruits brownies as an innovation product for the especially for the student of English Department.

Finally, the writers expect that this report can give advantages and usefulness especially for the students of English Department

Palembang, July 2017

The writer

## MOTTO AND DEDICATION

Motto:

*Education is not preparation for Life, Education is Life Itself. – Cythria Ayu F*

*We will never know, before we do so. Remember one thing, the work we do will be worth it. – Cythria Ayu F*

Dedicated To:

☺ *ALLAH SWT*

☺ *My beloved Parents*

☺ *My beloved Family*

☺ *My beloved brother and sisters*

☺ *My beloved Friends at ED POLSRI*

## ABSTRACT

### RESEARCH AND DEVELOPMENT OF THE BROWNIES USING AVOCADO, COCONUT, AND DATE PALM FRUITS TO MAKE NEW CAKE VARIANTS

**(Cythria Ayu Fatmawaty, 2017: 72 Pages, 118 Figures, 4 Tables)**

---

This final report aimed at making the new cake variants of “Brownies” that using avocado, coconut and date palm fruits as a main ingredients. This final report discusses about the making of “Brownies Using Avocado, Coconut, and Date Palm Fruits to Make New Cake Variants” and it is about acceptable of “Brownies Using Avocado, Coconut, and Date Palm Fruits to Make New Cake Variants”. Based on the findings, the writer found that brownies can be combined with avocado, coconut, and date palm. There were three testings for the product: limited testing, larger testing, and final testing. The product was disseminated through questionnaire. There were 60 respondents for the questionnaire. The questionnaire was analyzed to find out people perceptions about the product which is developed *Fruits Brownies*. The result of the development in form of recipe was documented into recipe book, brochure, and packaging. In this final report, the writer uses Research and Development “R&D” method. The “R&D” method that includes 10 steps there are: (1) Research and Information Collecting, (2) Planning, (3) Develop Preliminary of Product, (4) Preliminary Field Testing, (5) Main Product Revision, (6) Main Field Testing, (7) Operational Product Revision, (8) Operational Field Testing, (9) Final Product Revision, (10) Dissemination and Implementation. After that the writer implements the steps by asking some experts.

***Keywords: Research & Development, Brownies Cake, Avocado, Coconut, Date Palm***

## TABLE OF CONTENT

<b>TITLE SHEET</b> .....	<b>i</b>
<b>PREFACE</b> .....	<b>ii</b>
<b>MOTTO</b> .....	<b>iii</b>
<b>ACKNOWLEDGMENT</b> .....	<b>iv</b>
<b>TABLE OF CONTENT</b> .....	<b>v</b>
<b>LIST OF CHART</b> .....	<b>vi</b>
<b>LIST OF PICTURES</b> .....	<b>vii</b>
<b>LIST OF TABLES</b> .....	<b>viii</b>
<b>I. CHAPTER I INTRODUCTION</b>	
1.1 Background .....	1
1.2 Problem Formulation .....	2
1.3 Problem Limitation .....	2
1.4 Research Question .....	2
1.5 Operational Definitions .....	3
1.5.1 The definition about research and development .....	3
1.5.2 The new Brownies Fruits Variants.....	3
1.6 Research Purpose .....	3
1.7 Research Benefit .....	4
<b>II. CHAPTER II LITERATURE REVIEW</b>	
2.1 Brownies .....	5
2.2 The ingredients of Brownies in general .....	6
1. High Protein Flour .....	6
2. Sugar .....	6
3. Salt .....	7
4. Fat .....	7



5. Eggs .....	8
6. Baking Powder .....	8
7. Dark Chocolate .....	9
2.3 Technique for making fruit brownies .....	9
2.3.1 Mixing Process .....	9
2.3.2 Baking Process .....	9
2.4 Food Innovation .....	10
2.5 Information about Avocado, Coconut, and Date Palm Fruits .....	10
2.5.1 The nutrition of Avocado .....	10
2.5.2 The nutrition of Coconut .....	10
2.5.3 The nutrition of Date Palm .....	11
2.6 Product Development .....	11
2.7 Food Diversification .....	12
2.8 Recipe Book .....	13
2.9 Brochure .....	13
2.10 Packaging .....	14

### **III. CHAPTER III**

3.1 The Approaches and Methods of Research .....	15
3.2 Place of Research .....	19
3.3 Population .....	19
3.4 Sample .....	20
3.5 Techniques of Collecting Data .....	20
3.5.1 Interview .....	20
3.5.1.1 Structured Interview .....	20
3.5.1.2 Unstructured Interview .....	21
3.5.1.3 Semi Structure Interview .....	21
3.5.2 Documentation .....	21
3.6 Techniques of Analyzing Data .....	22
3.6.1. Interview .....	22
3.6.2. Questionnaire .....	23
3.6.3 Documentation .....	25

### **IV CHAPTER IV**

4.1 Findings .....	27
1. Preliminary Study .....	27
a. Literature Study .....	27
b. Filed Survey .....	28
c. Arranging product draft .....	28
4.2 Discussions .....	67
<b>VCONCLUSION AND SUGGESTION .....</b>	<b>70</b>
5.1 Conclusion .....	70
5.2 Suggestion .....	70

**REFERENCES**

**APPENDICES**

## LIST OF FIGURES

Figures 2.1 Brownies .....	5
Figures 2.2 High Protein Flour .....	6
Figures 2.3 Sugar .....	6
Figures 2.4 Salt .....	7
Figures 2.5 Fat .....	7
Figures 2.6 Eggs.....	8
Figures 2.7 Baking Powder .....	8
Figures 2.8 Dark Chocolate .....	9
Figures 3.1 The Steps Research R&D (Borg and Gall) .....	16
Figures 3.2 The Steps R&D Modified (Sukmadinata).....	19
Figures 4.1 Avocado .....	30
Figures 4.2 Coconut .....	30
Figures 4.3 Date Palm .....	30
Figures 4.4 Scale .....	31
Figures 4.5 Bowl .....	31
Figures 4.6 Knife .....	32
Figures 4.7 Mold.....	32
Figures 4.8 Spoon .....	32
Figures 4.9 Whisk .....	33
Figures 4.10 Pan .....	33
Figures 4.11 Brush .....	33
Figures 4.12 Paper Bread .....	34
Figures 4.13 Brass .....	34
Figures 4.14 Oven .....	34
Figures 4.15 Butter Melting Process.....	35

Figures 4.16 Chocolate Mellting Process.....	35
Figures 4.17 Mixing Bowl.....	35
Figures4.18 Adding Egg, Baking Powder and Emulsifier .....	35
Figures 4.19 Batter Mixing Process .....	36
Figures 4.20 Adding Sugar.....	36
Figures 4.21 Mixing The Flour, Salt and Cocoa Powder.....	36
Figures 4.22Adding Flour Mixture to The Batter.....	36
Figures 4.23 Stiring Process .....	37
Figures 4.24 Adding Melt Chocolate .....	37
Figures 4.25Adding Vanila Pasta .....	37
Figures 4.26 Pouring The Batter into The Mold.....	37
Figures 4.27 Heating The Oven.....	38
Figures 4.28 Baking Process .....	38
Figures 4.29 Melting Process .....	38
Figures 4.30 Adding Egg, Baking Powder and Emulsifier .....	38
Figures 4.31 Adding Flour and Baking Powder .....	39
Figures 4.32 Adding Avocado Fruit and Pasta.....	39
Figures4.33 Avocado Brownies Baking Process .....	39
Figures 4.34 Serving Avocado Brownies.....	39
Figures 4.35 Butter Melting Process.....	40
Figures 4.36 Chocolate Mellting Process .....	40
Figures 4.37 Mixing Bowl.....	40
Figures 4.38 Adding Egg, Baking Powder and Emulsifier .....	40
Figures 4.39 Batter Mixing Process .....	41
Figures 4.40 Adding Sugar.....	41
Figures 4.41 Mixing The Flour, Salt and Cocoa Powder.....	41
Figures 4.42 Adding Flour Mixture to The Batter.....	41

Figures 4.43 Stiring Process .....	42
Figures 4.44 Adding Melt Chocolate .....	42
Figures 4.45 Adding Vanila Pasta .....	42
Figures 4.46 Pouring The Batter into The Mold.....	42
Figures 4.47 Heating The Oven.....	43
Figures 4.48 Baking Process .....	43
Figures 4.49 Melting Process .....	43
Figures 4.50 Adding Egg, Sugar and Emulsifier .....	43
Figures 4.51 Adding Flour and Baking Powder .....	44
Figures 4.52 Adding Coconut Fruit and Yellow Pasta .....	44
Figures 4.53 Coconut Brownies Baking Process.....	44
Figures 4.54 Serving Coconut Brownies.....	44
Figures 4.55 Butter Melting Process.....	45
Figures 4.56 Chocolate Mellting Process.....	45
Figures 4.57 Mixing Bowl.....	45
Figures 4.58 Adding Egg, Baking Powder and Emulsifier .....	45
Figures 4.59 Batter Mixing Process .....	46
Figures 4.60 Adding Sugar.....	46
Figures 4.61 Mixing The Flour, Salt and Cocoa Powder.....	46
Figures 4.62 Adding Flour Mixture to The Batter.....	46
Figures 4.63 Stiring Process .....	47
Figures 4.64 Adding Melt Chocolate .....	47
Figures 4.65 Adding Vanila Pasta .....	47
Figures 4.66 Pouring The Batter into The Mold.....	47
Figures 4.67 Heating The Oven.....	48
Figures 4.68 Baking Process .....	48
Figures 4.69 Melting Process .....	48

Figures 4.70 Adding Egg, sugar and Emulsifier.....	48
Figures 4.71 Adding Flour and Baking Powder .....	49
Figures 4.72 Adding Date Palm Fruit and Brown Pasta .....	49
Figures 4.73 Date Palm Fruit Brownies Baking Process .....	49
Figures 4.74 Serving Date Palm Fruit Brownies .....	49
Figures 4.75 Cover .....	50
Figures 4.76 Content 1 .....	50
Figures 4.77 Content 2 .....	50
Figures 4.78 Content 3 .....	51
Figures 4.79 Content 4 .....	51
Figures 4.80 Content 5 .....	51
Figures 4.81 Content 6 .....	52
Figures 4.82 Content 7 .....	52
Figures 4.83 Content 8 .....	52
Figures 4.84 Content 9 .....	53
Figures 4.85 Brochure Design .....	53
Figures 4.86 Packaging Design .....	53
Figures 4.87 Revision from Limited Testing.....	56
Figures 4.88 Cover After Revision .....	56
Figures 4.89 Content 1 After Revision.....	56
Figures 4.90 Content 2 After Revision.....	57
Figures 4.91 Content 3 After Revision.....	57
Figures 4.92 Content 4 After Revision.....	57
Figures 4.93 Content 5 After Revision.....	58
Figures 4.94 Content 6 After Revision.....	58
Figures 4.95 Content 7 After Revision.....	58
Figures 4.96 Content 8 After Revision.....	59

Figures 4.97 Content 9 After Revision.....	59
Figures 4.98 Brochure Design After Revision .....	59
Figures 4.99 Packaging Design After Revision.....	60
Figures 4.100Revision From Larger Testing.....	62
Figures 4.101 Revision From Final Testing .....	63
Figures 4.102 Cover After Final Revision .....	63
Figures 4.103 Content 1 After Final Revision.....	64
Figures 4.104 Content 2 After Final Revision.....	64
Figures 4.105 Content 3 After Final Revision.....	64
Figures 4.106 Content 4 After Final Revision.....	65
Figures 4.107 Content 5 After Final Revision.....	65
Figures 4.108 Content 6 After Final Revision.....	65
Figures 4.109 Content 7 After Final Revision.....	66
Figures 4.110 Content 8 After Final Revision.....	66
Figures 4.111 Content 9 After Final Revision.....	66
Figures 4.112 Brochure Design After Final Revision.....	67
Figures 4.113 Packaging Design After Final Revision .....	67

## LIST OF TABLES

Tables 3.1 Ideal Score Formula .....	23
Tables 3.2 Ideal Score .....	24
Tables 3.3 Percentage Formula.....	24
Tables 3.4 Percentage of Respondent Perceptions .....	24
Tables 4.1 Ideal Score Formula .....	68
Tables 4.2 Percentage Formula.....	68
Tables 4.3 Questionnaire Percentage Result .....	68
Tables 4.4 Perceptions by Percentage .....	69