

**DEVELOPING PHYSICS LEARNING MEDIA “READ PRO” ON
BLACK BODY RADIATION FOR BILINGUAL EDUCATION IN
SENIOR HIGH SCHOOL**

A THESIS



By :

THERESIA ANATA

1113008001

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FACULTY OF TEACHER TRAINING AND EDUCATION

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APPROVAL SHEET

(1)

This report entitled **Developing Physics Learning Media “READ PRO” on Black Body Radiation for Bilingual Education in Senior High School** prepared and submitted by Theresia Anata has been approved and accepted as part of fulfillment of requirements for Sarjana Pendidikan Degree in Physics Teaching by the following advisors:



First Advisor: Drs. I Nyoman Arcana, M.Si



Second Advisor: J.V. Djoko Wirjawan, Ph.D

APPROVAL SHEET

(2)

This thesis has been examined by the committee on oral examination on July 27th, 2012 by:



Prof. Sugimin W.W.

Chairman



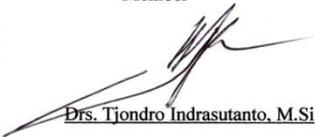
J.V. Djoko Wirjawan, Ph.D

Member



Drs. I Nyoman Arcana, M.Si

Member



Drs. Tjondro Indrasutanto, M.Si

Member



Drs. G. Budijanto Untung, M.Si

Member



Herwinarso, S.Pd, M.Si

Member



Drs. Agus Santi Widiati, M.Pd

Dean of the Teacher Training and Education

Approved by:



J.V. Djoko Wirjawan, Ph.D

Head of the Physics Department

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Nama Mahasiswa : Theresa Anata

Nomor Pokok : 1113008001

Program Studi : Pendidikan Fisika – Jurusan Pendidikan MIPA

Fakultas : Keguruan dan Ilmu Pendidikan

Perguruan Tinggi : Universitas Katolik Widya Mandala Surabaya

Tanggal Lulus : 31 JULI 2012

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NRP.: 1113008001

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TABLE OF CONTENT

Approval Sheet (1)	ii
Approval Sheet (2)	iii
Acknowledgement	iv
Table of Content	vi
List of Tables	x
List of Figures	xi
List of Appendices	xii
Abstract	xiii
Abstrak	xiv
CHAPTER I : INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the Problem	3
1.3 Objectives of the Study	3
1.4 Significances of the Study	3
1.5 Scope and Limitation of the Study	3
1.6 Key Performance Indicators	3
1.7 Definition of the Key Terms	3
1.8 Organization of the Thesis	4

CHAPTER II	: REVIEW OF RELATED LITERATURES	6
2.1	Bilingual Education	6
2.2	READ PRO Bilingual Education	6
2.3	Thermal Radiation	7
2.4	Black Body Radiation	8
2.5	Intensity of the Black Body Radiation	9
2.6	Wien's Shift Law	11
2.7	Planck's Theory	12
2.8	Adobe Flash CS 5	13
2.9	Review of Related Works	13
CHAPTER III	: METHODOLOGY	14
3.1	The Research Method	14
3.2	The Research Subjects	14
3.3	Procedure of the Research	14
3.3.1	Literature Review	15
3.3.2	Designing the Bilingual Education Media	16

3.3.3 Developing Bilingual Education Media	16
3.3.4 Validation	17
3.3.5 Revision	17
3.3.6 Try out	17
3.3.7 Conclusion	18
3.4 Data Collection Technique	18
3.5 Research Instruments	19
3.6 Data Analysis Technique	19
CHAPTER IV : RESULTS AND DISCUSSION	20
4.1 Results	20
4.1.1 Overview of the Media	20
4.1.2 Questionnaire	26
4.2 Discussion	29
CHAPTER V : CONCLUSION AND SUGGESTION	31
5.1 Conclusion	31
5.2 Suggestion	31

References

Appendices

LIST OF TABLES

Table 4.1 The translation of the questionnaire	26
Table 4.2 The result of the questionnaire	27
Table 4.3 Percentage of each statement (%)	28
Table 4.4 Percentage of agree and disagree (%)	29

TABLE OF FIGURES

Figure 2.1 Hot metal at high temperature looks red.	7
Figure 2.2 Closed box with a small hole to model black body	8
Figure 2.3 The hole of a hollow metal acts as black body	9
Figure 2.4 Graph of radiant intensity as function of the wavelength	11
Figure 3.1 Flowchart of the Research Procedures	15
Figure 4.1 Opening Menu	21
Figure 4.2 Menu Options	21
Figure 4.3 Widya Mandala Profile	22
Figure 4.4 Physics Department Short Profile	22
Figure 4.5 About us menu	23
Figure 4.6 Thermal Radiation	23
Figure 4.7 Black Body Radiation	24
Figure 4.8 Wien's Shift Law	24
Figure 4.9 Planck's Theory	25
Figure 4.10 Dictionary and Pronunciation	25

LIST OF APPENDICES

APPENDIX 1 :

Angket Media Pembelajaran Bilingual READ PRO 33

APPENDIX 2 :

The Translation of the Questionnaire 34

APPENDIX 3 :

Format Wawancara Terstruktur untuk Uji Ahli 35

APPENDIX 4 :

Rencana Pelaksanaan Pembelajaran (RPP) 38

ABSTRACT

THERESIA ANATA: “Developing Physics Learning Media “READ PRO” on Black Body Radiation for Bilingual Education in Senior High School.” Advisors: **Drs. I Nyoman Arcana, M.Si and J.V. DjokoWirjawan, Ph.D.**

Nowadays, we enter globalization era that impacts our life in some aspects, such as: Technology, Knowledge, Education, Language, etc. English as a communication language, a lot of books are written in English, and bilingual education curriculums are some of the effects of globalization era that we have to face. There are a lot of bilingual books in the bookstore but there is rarely bilingual media in it. A need of bilingual media is the reason to do this research. READ PRO bilingual education is the answer to solve those problems. READ PRO stands for REading, Animation, Dictionary, PRonunciation. Reading contains the material or the theory, animation shows the process that we have to learn to be more understand, dictionary will help users when the users do not know the meaning of some difficult words, and pronunciation guides the users to pronounce the words well.

The research method is Research Instruction Improvement (RII). There were 120 students involved in the try out. Based on the response of the students to the questionnaire given after they completed the try out, we found that 92.42 % of the students agreed that READ PRO bilingual

Physics learning media is useful. Therefore, we may conclude that the READ PRO has been developed successfully.

Keywords : blackbody radiation, READ PRO bilingual education, media

ABSTRAK

THERESIA ANATA: “Pengembangan Media Pembelajaran Fisika “READ PRO” Pada Pokok Bahasan Radiasi Benda Hitam Untuk Pembelajaran Bilingual di Sekolah Menengah Atas ”. Dibimbing oleh: **Drs. I Nyoman Arcana, M.Sidan J.V. Djoko Wirjawan, Ph.D.**

Dengan bertambahnya jumlah sekolah nasional plus, dirasakan perlunya media pembelajaran fisika bilingual. Media pembelajaran fisika pada topik radiasi benda hitam sangat terbatas dan umumnya tersedia dalam bahasa Inggris. Masih belum tersedia media pembelajaran fisika yang sepenuhnya merupakan media pembelajaran bilingual pada topik tersebut. Penelitian ini dilakukan untuk merespons kebutuhan tersebut. Media pembelajaran yang dikembangkan, READ PRO, mengakomodasi REading, Animation, Dictionary, dan PRONunciation dalam satu paket media pembelajaran. Komponen reading menampilkan teks bacaan tentang teori radiasi benda hitam, animation menampilkan proses fisika untuk membantu pemahaman teori, dictionary untuk menampilkan arti kata-kata sukar dalam bacaan, dan pronunciation untuk memperdengarkan bagaimana pengucapan kata-kata yang muncul dalam bacaan secara tepat.

Metode penelitian yang digunakan adalah penelitian pengembangan. Hasil penelitian ini berupa media pembelajaran interaktif berbasis computer yang berisi penjelasan tentang radiasi benda hitam, animasi, kamus, dan pengucapannya. Uji lapangan dilakukan di SMA St. Louis 1 Surabaya, SMAN 6 Surabaya, dan SMAK Santo Carolus Surabaya. Berdasarkan hasil angket diperoleh 92, 42% siswa menyatakan bahwa media ini baik dan bermanfaat.

Kata kunci : radiasi benda hitam, READ PRO, media pembelajaran fisika
bilingual