

**DESIGNING PISA BASED MODEL OF READING LITERACY
ASSESSMENT FOR GRADE X SENIOR HIGH SCHOOL STUDENTS**

THESIS

*Submitted in partial fulfillment of the requirement for Master's Degree
in English Education*



By :

SISRI OVALINA

20178021/2020

Advisor:

Dr. Refnaldi, S.Pd., M.Litt

MAGISTER PROGRAM OF ENGLISH EDUCATION

FACULTY OF LANGUAGES AND ARTS

UNIVERSITAS NEGERI PADANG

2023

ABSTRACT

SISRI OVALINA, NIM 20178021, “Designing PISA based Model of Reading Literacy Assessment for Grade X Senior High School Students”. Thesis, Magister Degree Program, Universitas Negeri Padang.

Reading literacy is understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society. OECD through PISA has regularly assessed students' reading literacy skills since 2000. Yet, Indonesia continuously ranks almost as the lowest among countries since participating in PISA. The research aimed to figure out the students’ needs of PISA based model of reading literacy assessment and to figure out the appropriate design of PISA based model of reading literacy assessment for grade ten senior high school students. The respondents of the research were 9 teachers and 301 students of ten Senior High School in Sumatera Barat. The research adapted ADDIE (Analyze, Design, Develop, Implement, Evaluate) model as research design. However, the researcher did not do the implement phase of ADDIE since the limitation of the time. The data were obtained by distributing questionnaires to teachers and students. Then, the data were analyzed by using formula suggested by Sugiyono (2019). The result indicated that the students needed all of response formats, text types, cognitive process, text formats, situations, level of questions, types of questions and text medium. The product was designed based on the students’ need analysis results of the students, PISA reading literacy framework, and 2013 curriculum. Evaluation was done by validating the product through expert judgment. The product was very valid for its content and its construct and was valid for its face. Thus, the product was appropriate for grade ten senior high school students.

Keywords: *Reading Literacy, PISA, Design*

ABSTRAK


SISRI OVALINA, NIM 20178021, “Designing PISA based Model of Reading Literacy Assessment for Grade X Senior High School Students”. Thesis, Magister Degree Program, Universitas Negeri Padang.

Literasi membaca adalah memahami, menggunakan, mengevaluasi, merefleksikan, dan terlibat dengan teks untuk mencapai tujuan, mengembangkan pengetahuan dan potensi diri, serta berpartisipasi dalam masyarakat. OECD melalui PISA secara rutin menilai kemampuan literasi membaca siswa sejak tahun 2000. Namun, Indonesia terus menerus berada di peringkat terendah di antara negara-negara lain sejak berpartisipasi dalam PISA. Penelitian ini bertujuan untuk mengetahui kebutuhan siswa akan model penilaian literasi membaca berbasis PISA dan untuk mengetahui desain model penilaian literasi membaca berbasis PISA yang sesuai untuk siswa kelas sepuluh sekolah menengah atas. Responden penelitian ini adalah 9 orang guru dan 301 siswa dari 10 Sekolah Menengah Atas di Sumatera Barat. Penelitian ini mengadaptasi model ADDIE (Analyze, Design, Develop, Implement, Evaluate) sebagai desain penelitian. Namun, peneliti tidak melakukan tahap implementasi ADDIE karena keterbatasan waktu. Data penelitian diperoleh dengan menyebarkan kuesioner kepada guru dan siswa. Kemudian, data dianalisis dengan menggunakan rumus yang disarankan oleh Sugiyono (2019). Hasil penelitian menunjukkan bahwa siswa membutuhkan semua format respon, jenis teks, proses kognitif, format teks, situasi, tingkat pertanyaan, jenis pertanyaan dan media teks. Produk dirancang berdasarkan hasil analisis kebutuhan siswa, kerangka kerja literasi membaca PISA, dan kurikulum 2013. Evaluasi dilakukan dengan memvalidasi produk melalui penilaian ahli. Produk ini sangat valid untuk konten dan konstruksinya serta valid untuk tampilannya. Dengan demikian, produk tersebut sesuai untuk siswa kelas sepuluh sekolah menengah atas.



Kata kunci: *Literasi Membaca, PISA, Desain*

PERSETUJUAN AKHIR TESIS

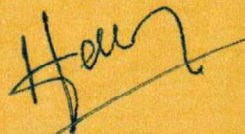
Mahasiswa : **Sisri Ovalina**
NIM : 20178021/2020
Program Studi : Pendidikan Bahasa Inggris

Nama	Tanda Tangan	Tanggal
<u>Dr. Refnaldi, S.Pd., M.Litt.</u> Pembimbing		<u>7/6/2023</u>



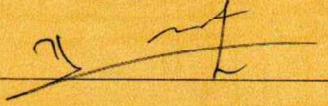
Dekan Fakultas Bahasa dan Seni
Universitas Negeri Padang



Prof. Dr. Ermanto, S.Pd., M.Hum.
NIP. 19690212.199403.1.004

Ketua Program Studi


Dr. Hamzah, M.A., M.M.
NIP. 19611221.199003.1.001

**PERSETUJUAN KOMISI
UJIAN TESIS MAGISTER KEPENDIDIKAN**

No.	Nama	Tanda Tangan
1.	<u>Dr. Refnaldi, S.Pd., M.Litt.</u> (Ketua)	 _____
2.	<u>Dr. Ratmanida, M.Ed, TEFL.</u> (Sekretaris)	 _____
3.	<u>Dr. Yuli Tiarina, M.Pd.</u> (Anggota)	 _____

Mahasiswa

Mahasiswa : **Sisri Ovalina**
NIM : 20178021/2020
Program Studi : Pendidikan Bahasa Inggris
Tanggal Ujian : 2 - 06- 2023

SURAT PERNYATAAN

Dengan ini saya menyatakan bahwa:

1. Karya tulis saya yang berjudul “Designing PISA based Model of Reading Literacy Assessment for Grade X Senior High School Students” adalah asli dan belum pernah diajukan untuk mendapatkan gelar akademik di Universitas Negeri Padang maupun di perguruan tinggi lainnya.
2. Karya tulis ini murni gagasan, penilaian, dan rumusan saya sendiri, tanpa bantuan tidak sah dari pihak lain, kecuali arahan dari pembimbing.
3. Didalam karya tulis ini tidak terdapat hasil karya atau pendapat yang telah ditulis dan dipublikasikan orang lain kecuali dikutip secara tertulis dengan jelas dan dicantumkan sebagai acuan di dalam daftar pustaka.
4. Pernyataan ini saya buat dengan sesungguhnya, dan apabila dikemudian hari terdapat penyimpangan dan ketidakbenaran pernyataan ini, saya bersedia menerima sanksi dengan norma dan ketentuan hukum yang berlaku.

Padang, Juni 2023



SISRI OVALINA

20178021

ACKNOWLEDGEMENTS

Bismillahirrahmanirrahim. All praises is to Allah SWT, the Creator of the universe for giving the researcher health, chance, knowledge, and strength to finish this thesis entitled “Designing PISA based Model of Reading Literacy Assessment for Grade X Senior High School Students”. Besides, the writer expresses her gratitude to the Prophet Muhammad SAW who led the human race with religiosity, humanity and knowledge.

The researcher would like to express the deepest gratitude to her advisor, Dr. Refnaldi, S.Pd, M. Litt who has given continues guidance, valuable advices and ideas in completing this thesis. The researcher is also expressed the deepest gratitude to the Coordinator of the research, Prof. Dr. M. Zaim, M.Hum for giving the chance to join this research. The researcher’s gratitude is also addressed to Dr. Ratmanida, M.Ed. TEFL and Dr. Yuli Tiarina, S.Pd, M.Pd as both contributors and examiners who provide comments as constructive feedback due to a better thesis. Next, her gratitude is addressed to Dr. Fitrawati, S.S, M.Pd and Nofrina Eka Putri, S.Pd, M.Pd as valuator of the book who give suggestions during validation process. Then, the researcher would like to thank to Dr. Havid Ardi, S.Pd., M.Hum as the validator of her research instrument.

Last, my sincerest gratitude goes to my husband, my parents, my beloved baby boy, my brother, and my sister for their endless love, patience, and support. And, I would like to thank all of my friends for their support, time, and contribution during the writing and the completion of this thesis.

Padang, 2023

The Researcher

TABLE OF CONTENTS

ABSTRACT	i
ABSTRAK	ii
PERSETUJUAN AKHIR THESIS	iii
PERSETUJUAN KOMISI UJIAN TESIS MAGISTER KEPENDIDIKAN	iv
SURAT PERNYATAAN	v
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF PICTURES	xi
LIST OF APPENDICES	xii
CHAPTER I INTRODUCTION	1
A. Background of the Problem.....	1
B. Identification of the Problem.....	6
C. Limitation of the Problem	6
D. Formulation of the Problem	7
E. Research Questions	7
F. Purpose of the Research	7
G. Specification of the Product	8
H. Significance of the Research.....	9
I. Definition of the Key Terms	9
CHAPTER II REVIEW OF RELATED LITERATURE	11
A. Review of Related Theories	11
1. Reading Literacy	11
2. PISA Model.....	19
3. Designing Reading Literacy Assessment Model	26
B. Review of Related Studies	36

C. Conceptual Framework	38
CHAPTER III RESEARCH METHODOLOGY	40
A. Research Design.....	40
B. Research Procedure.....	40
C. Respondents of the Research	42
D. Instrumentation	42
E. Data and Source of the Data	45
F. Technique of Data Collection	46
G. Technique of Data Analysis.....	46
CHAPTER IV FINDINGS AND DISCUSSIONS.....	48
A. Data Description and Analysis.....	48
B. Findings.....	71
C. Discussions.....	74
D. Limitation of the Research.....	81
CHAPTER V CONCLUSION, IMPLICATION, SUGGESTION.....	83
A. Conclusion	83
B. Implication	83
C. Suggestion.....	84
REFERENCES.....	85
APPENDICES	92

LIST OF TABLES

Table 1. Indicators and Sub-Indicators of Questionnaire for Need Analysis	43
Table 2. Indicators of Product validation Sheet	44
Table 3. The Category for Need Analysis Result	47
Table 4. The Interval of Instrument Validation	47
Table 5. Response Formats of PISA based Reading Literacy Assessment.....	49
Table 6. Text Types of PISA based Reading Literacy Assessment	50
Table 7. Aspect of Reading Literacy Competence/ Cognitive Process of PISA based Reading Literacy Assessment	51
Table 8. Text Formats of PISA based Reading Literacy Assessment.....	51
Table 9. Text Context/ Situations of PISA based Reading Literacy Assessment.....	52
Table 10. Level of Questions of PISA based Reading Literacy Assessment.....	53
Table 11. Types of Questions of PISA based Reading Literacy Assessment.....	54
Table 12. Text Medium of PISA based Reading Literacy Assessment	54
Table 13. The Design of PISA based Reading Literacy Assessment at Grade Ten Senior High School that was suitable to the Students' Need	56
Table 14. Content Validity	69
Table 15. Construct Validity	70
Table 16. Face Validity	71

LIST OF FIGURES

Figure 1. The Conceptual Framework	39
Figure 2. Design of PISA based Model of Reading Literacy Assessment for Grade X Senior High School Students	64

LIST OF PICTURES

Picture 1. Types of Reading Questions	19
Picture 2. Cover of PISA based Model of Reading Literacy Assessment	65
Picture 3. Chapter 1	66
Picture 4. Chapter 2 and Chapter 3	66
Picture 5. Chapter 4 Assessment Grids	67
Picture 6. Chapter 4 Example of reading Literacy Assessment	68
Picture 7. References.....	69

LIST OF APPENDICES

Appendix 1 Questionnaire of need analysis for teachers	92
Appendix 2 Questionnaire of need analysis for students	98
Appendix 3 Validation sheet of questionnaire from validator	104
Appendix 4 Need analysis result for teachers	106
Appendix 5 Need analysis result for students	107
Appendix 6 Result of need analysis	116
Appendix 7 Instrument validation sheet for product.....	119
Appendix 8 Product validation sheet by validator 1	121
Appendix 9 Product validation sheet by validator 2	123
Appendix 10 Result of product validation	125
Appendix 11 Model book of PISA based model of reading literacy assessment for grade x senior high school students	126

CHAPTER I

INTRODUCTION

A. Background of the Problem

Reading is essential for educational system that is the major part and tools of the world purpose for seeking the knowledge, ideas creation, decision making and solutions. As students, reading is one of the important skills that need to be mastered especially by L2 or foreign language students. To be successful in class, students are required to read extensively for knowledge and information from textbooks, articles, and other sources and think critically about what they have read. In addition, reading can help students to be quickly and widely in mindset of academic from both inside and beyond classrooms entirely. However, when reading is done in a second/ foreign language (L2), the task inevitably becomes much more complex and the difficulty and complexity is doubled or even tripled as the reader requires not only a higher level of L2 language proficiency but also critical thinking skills.

Moreover, the need of competent human resources is important according to the development of science and technology and international market. As a consequence, in 21st century, the challenges of future education require students to master good literacy and think critically in order to make them more aware and have the ability to responsive to issues that develop in society. By mastering both skills, hopefully, they can understand and can solve the problems in society. Their knowledge and skill can be useful not only for their study and future job, but also in their environment.

Nowadays, it is not enough to be a proficient reader; the students need to be able to read a variety of purposes. As stated in OECD (2018), “reading literacy is understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society.” Reading literacy is a competency of the students that allows them to engage with written information of one or multiple texts for specific purposes. So, they have to understand, integrate, and evaluate the content and the form of the text. Reading literacy skill makes the students be more critical readers.

To assess such skills, OECD (Organization for Economic Cooperation and Development) through PISA (Programme for International Student Assessment) has regularly assessed students' reading literacy skills since 2000. PISA is a program that initiated by the member countries in the OECD (Organization for Economic Cooperation and Development) which is held to assist countries in preparing human resources to have competence which is in line with what is expected in international market. In addition, OECD (2019) states “policy makers around the world use PISA findings to gauge the knowledge and skills of the students in their own country/ economy compared with those in other participating countries/ economies, establish benchmarks for improvements in education provided and/or in learning outcomes, and understand the relative strengths and weaknesses of their own education systems.” It can be implied that PISA is a major assessment tool in many regions and countries around the world.

Furthermore, reading literacy in PISA emphasizes the ability to use written information in situations that students may encounter in their life at and beyond

school. Even though Indonesia has participated in PISA since 2000, year to year, Indonesia continuously ranks almost as the lowest among countries. As it has already known that the average score of reading literacy is 500 which are below International Score Average. However, the result showed that in 2000, Indonesia's score was 371 and ranked 39 out of 41 countries. Then, Indonesia got 382 and placed 39 out of 40 countries in 2003. This is the lowest since Indonesia placed the second lowest rank among countries. In 2006, it was 393 and the rank was 48 out of 56 countries. Indonesia's score increased in 2009 by having 402, but the rank was still low (57 out of 65 countries). In 2012, Indonesia's score decreased (396) and the rank was 61 out of 65. Lastly, in 2015, Indonesia got 397 and ranked 66 out of 72. Those were the evident that the reading literacy skill of Indonesia students is still below the international standards. Also, Indonesia was considered not succeeded to provide quality education by using international standards. Low reading literacy skill will interfere the teaching and learning process and can make Indonesian students are hard to compete in the current global era.

Due to the fact improving the human resources competence and the demands of international market, in 2020 the Minister of Education and Culture has eliminated UN (*Ujian Nasional*) and replaced it with *Asesmen Kompetensi Minimum* (AKM). Similar to PISA, AKM is used to figure out the students' knowledge and evaluate the education system in Indonesia to produce competent human resources that are able to compete in international market. There are some researchers conducted a research towards PISA based model of reading literacy such as (Ertem, 2021; Rosana, et al., 2020; Safari, 2020; Patria, 2019; Khamkhong, 2018; Sathapong, 2018, Selvina, et

al., 2018; and Harsiati, 2018). Research conducted by Ertem (2021) discusses which both student-level and school-level factors influencing students' reading literacy achievement in Turkey by using PISA 2018 data. Almost the same as Ertem, Patria (2019) reported Indonesia reading literacy progress based on PISA data from 2000 to 2015 and examined background factors that significantly contribute to Indonesia's reading achievement. So, both researchers have conducted a research towards the factors that influence the students' reading literacy achievement based on PISA results.

However, the other researchers did a research towards PISA development model of reading literacy. The first researcher is Rosana, et al (2020). The researchers aimed to develop assessment instruments of PISA model to measure students' problem-solving skills and scientific literacy in junior high schools. And, the result showed that there are the significant effect of the application of the PISA model question instrument on the improvement of scientific literacy and problem solving skills of junior high school students. In addition, Khamkhong (2018) aims to investigate and develop the use of the PISA reading literacy assessment framework (PRF) to improve EFL learners' critical reading and thinking skills. The designed lessons can help improve students' English critical reading proficiency and may be used as a teaching model for improving EFL learners' critical reading and thinking skills. Moreover, Selvina, et al (2018) has developed PISA-based reading materials in Indonesian context in the form of continuous text. The outcomes indicated that PISA-based reading materials in Indonesian context in the form of continuous text were categorized as very had high potential effect to the students. The last is a research

conducted by Sathapong (2018). The purposes of this research were to develop an instructional model based on Reading Apprenticeship Approach for enhancing reading literacy on Pisa of lower secondary school students and evaluate the efficiency of the instructional model. This research reports the reflection of sample group had score higher than before the experiment, but not different at 0.05 level of significant. These four researchers have shown that developing reading literacy assessment based on PISA have positive impact towards students reading literacy ability.

In spite of the previous researchers, there are two researchers conducted a research about PISA characteristics and students' perception towards the use of PISA. Safari (2020) seeks whether any difference between international students' perceptions of teacher guide on learning to read to meet real-life challenges whose country position is above and below the 2018 average Program for International Student Assessment (PISA) score. The conclusion indicates that teachers in countries above the PISA average often provide feedback and provide improved reading material to their students compared to teachers in countries below the PISA average. On the other hands, Harsiati (2018) examines the characteristics of PISA reading literacy questions was carried out four times, namely reading questions as a major test material for 2000-2009 and as a minor test material 2003-2006. The results of the analysis shows that the PISA reading literacy questions are dominated by higher order thinking skills in the form of interpretation, reflection, and evaluation skills. It can be concluded that PISA reading literacy materials or questions can enhance students' reading literacy skill.

Although there are some researchers had conducted research about PISA, the researchers have not found a research about designing PISA based model of reading literacy assessment for tenth grade Senior High School students especially in Sumatera Barat. Since PISA model is appropriate to figure out the students' knowledge, enhance the students' reading literacy skill, and evaluate the education system in Indonesia, this assessment model hopefully can improve the students' competency especially their reading literacy. In line with previous explanation, this research aims to 1) find the needs of tenth grade students of Senior High School related to the reading literacy assessment; 2) to find the form of reading assessment used by the teachers; and 3) to design the reading literacy assessment based on PISA Model of reading literacy at Grade X Senior High School.

B. Identification of the Problem

There are three problems that can be identified in this research. Due to the fact that students' reading literacy skill is still at low level which is proven by the PISA ranking score for Indonesia students of reading literacy. Another is the form of reading assessment conducted by the teachers at Senior High School in Sumatera Barat. Then, this research will seek the students' needs towards reading literacy assessment. In line with those problems, the researcher tries to design a PISA based model of reading literacy assessment at Grade X Senior High School.

C. Limitation of the Problem

Based on the identification of the problem above, this research will focus on designing PISA based model of reading literacy assessment for grade X Senior High School students.

D. Formulation of the Problem

The problem is formulated as follows: “What is the appropriate design of PISA based model of reading literacy assessment for grade X Senior High School students?”

E. Research Questions

There are three research questions in this research, they are:

1. What are the needs of grade x senior high school students of PISA based model of reading literacy assessment?
2. What is the appropriate design of PISA based model of reading literacy assessment for grade x senior high school students?
3. How is the validity of PISA based model of reading literacy assessment for grade x senior high school students?

F. Purpose of the Research

This study seeks:

1. To figure out the needs of grade x senior high school students of PISA based model of reading literacy assessment.
2. To design the appropriate PISA based model of reading literacy assessment for grade x senior high school students.
3. To figure out the validity of PISA based model of reading literacy assessment for grade x senior high school students.

G. Specification of the Product

In this research, the researcher designed a product namely PISA based model of reading literacy assessment for Grade X Senior High School students in Sumatera Barat. The design consisted of basic competences, text types, cognitive process, proficiency level, level of question, response format, situation, text format, and types of questions. Then, the researcher developed a model book of PISA based model of reading literacy assessment for grade x senior high school students based on the design which consists of four chapters. This product can be useful for teachers in order to assess the reading literacy skill of grade x students in Sumatera Barat. The first is introduction section. The researcher explains about the background of writing this book. Then, the researcher explains theoretical based about reading literacy in chapter two and PISA (Programme of International Student Assessment) in chapter three.

Moreover, in the last chapter, the researcher presents PISA based model of reading literacy assessment based on students' needs, PISA reading literacy framework, and basic competencies in 2013 curriculum. This consists of assessment grid, example of PISA based model of reading literacy assessment, description and scoring guide. Furthermore, there are eleven topics and eight text types implemented in this product. The topics are personal identity, family identity, congratulating others, complimenting others, making request and confirm arrangements, famous historical building, famous tourist attraction, senior high school graduation announcement, historical event, folktale, and song lyrics. Meanwhile, the text types

consist of three of transaction, description, announcement, recount, narration, and song lyric.

H. Significance of the Research

The researcher greatly expects to give beneficial contribution theoretically and practically. Theoretically, this research aims for significant contributions to English learning especially reading literacy skill. This research enriches the theories and enlarges knowledge about reading literacy assessment based on PISA model specifically for tenth grade senior high school students.

For practically, the result of this research is greatly expected to give real contribution to the teachers when they conduct reading literacy assessment based on PISA model of reading literacy assessment. English teachers are widely suggested by applying the PISA based model of reading literacy assessment to assess their students reading literacy skill. Hopefully, this assessment model can be used effectively and be a guidance for teachers to create reading literacy assessments and to improve the tenth grade students' reading literacy skill. Thus, in the future, the students are able to compete with international education system.

I. Definition of the Key Terms

To make the same interpretation about the terms used in this research, the researcher defines the terms as follows:

1. Reading literacy is understanding, using, reflecting on and engaging with written texts, in order to achieve one's goals, develop one's knowledge and potential, and participate in society.

2. PISA (Program for International Students Assessment) is an international assessment that measures 15 year-old students' reading, mathematics and science literacy every three years.
3. Design is creating a prototype of PISA based model of reading literacy assessment that appropriate with Grade x Senior High School students.