

TABLE OF CONTENTS

APPROVAL	i
SELF DECLARATION AGAINST PLAGIARISM	ii
ABSTRACT	iii
ABSTRAK	iv
ACKNOWLEDGEMENTS	v
LIST OF CONTENTS	vi
List of Figures	x
List of Tables	xiii
Abbreviations	xvii
1 THE PROBLEM	1
1.1 Rationale	1
1.2 Theoretical Framework	2
1.3 Conceptual Framework	3
1.4 Problem Statement	3
1.5 Hypotheses	3
1.6 Assumption	4
1.7 Scope and Delimitation	5
1.8 Importance of Study	5
2 REVIEW OF LITERATURE AND STUDIES	6
2.1 Theory of Dyslexia	6
2.2 Dyslexia Early Screening Test (DEST)	9
2.3 Designing Instrument and Scoring Determination	9
2.4 Natural Language Generation	11
2.4.1 Document Planning	11
2.4.1.1 Content Determination	12
2.4.1.2 Document Structuring	12
2.4.2 Micro planning	13
2.4.3 Surface Realizer	13
2.5 Theory of Sentences in Indonesia	13
2.5.1 Simple Sentence	14
2.5.2 Complex Sentence	14

2.5.2.1	Coordinating	14
2.5.2.2	Subordinating	14
2.5.3	Ellipsis	15
3	RESEARCH METHODOLOGY	17
3.1	Research Design	17
3.1.1	Preliminary Design	18
3.1.1.1	Determining The Objective of Instrument	19
3.1.1.2	Arranging The Parameters	19
3.1.1.2.1	Main Screening Parameters	22
3.1.1.2.2	Deep Screening Parameters	23
3.1.1.3	Writing Questionnaire	23
3.1.1.3.1	Main Screening Questionnaire	23
3.1.1.3.2	Deep Screening Questionnaire	24
3.1.1.4	Identifying and Determining Scoring Method	24
3.1.1.5	Piloting and Evaluating Instrument	25
3.1.1.5.1	Piloting I	25
3.1.1.5.2	Piloting II	32
3.1.1.5.3	Piloting III	36
3.1.1.5.4	Piloting IV	37
3.1.1.5.5	Piloting V	38
	A. Main Screening	39
	B. Deep Screening	40
3.1.2	System Design and Implementation	43
3.1.2.1	Data Processing	46
3.1.2.1.1	Data Processing of Main Screening	46
	A. Scoring Process	46
	B. Identification Process	49
3.1.2.1.2	Deep Screening Data Processing	50
	A. Scoring Process	50
	B. Identification Process	52
3.1.2.2	Report Generation	54
3.1.2.2.1	Report Generation of Main Screening	54
	A. Corpus Analysis and Template Generation	54
	B. Document Planning	70
	C. Micro Planning	74
	D. Surface Realizer	76
3.1.2.2.2	Report Generation of Deep Screening	78
	A. Corpus Analysis and Knowledge Generation	78
	B. Document Planning	99
	C. Micro Planning	109
	D. Surface Realizer	120
3.1.3	Experiment Scenario	122
3.1.3.1	Functionality Testing	122
3.1.3.1.1	Data Processing	123
3.1.3.1.2	Report Generation	124
3.1.3.1.3	Access Performance	125

3.1.3.2	Accuracy of Identification Process	126
3.1.3.2.1	Main Screening	126
3.1.3.2.2	Deep Screening	126
3.1.3.3	Naturalness of Generated Sentences	127
3.1.3.3.1	Naturalness of Main Screening	129
	A. Naturalness of Main Screening from The Perspective of Parents	129
	B. Naturalness of Main Screening from The Perspective of Experts	129
3.1.3.3.2	Naturalness of Deep Screening	130
3.2	Population and Samples	131
3.2.1	Samples for Access Performance Testing	131
3.2.2	Samples for Evaluating Identification Process	131
3.2.3	Samples for Evaluating The Naturalness of Generated Sentences	132
3.3	Data Analysis Tools	133
4	PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA	136
4.1	Presentation of Data	136
4.1.1	Functional Performance	136
4.1.1.1	Data Processing	136
4.1.1.2	Report Generation	137
4.1.2	Access Performance	151
4.1.3	Accuracy of Identification Result	155
4.1.3.1	Main Screening	155
4.1.3.2	Deep Screening	156
4.1.3.2.1	SD Fithrah Insani & Indigrow	157
4.1.3.2.2	SDN Nilem	157
4.1.4	Naturalness of Generated Sentences	158
4.1.4.1	Main Screening Report	158
4.1.4.1.1	Naturalness of Main Screening Report from the Perspective of Parents	158
4.1.4.1.2	Naturalness Main Screening Report from The Perspective of Experts	161
4.1.4.2	Deep Screening Report	164
4.2	Analysis of The Data	168
4.2.1	Analysis of The Functional Performance	168
4.2.1.1	Data Processing	168
4.2.1.2	Report Generation	169
4.2.2	Analysis of The Access Performance	169
4.2.3	Analysis of The Accuracy of Identification Result	170
4.2.3.1	Main Screening	171
4.2.3.2	Deep Screening	173
4.2.3.2.1	SD Fithrah Insani & Indigrow	174
4.2.3.2.2	SDN Nilem	178
4.2.4	Analysis of The Naturalness of Generated Sentences	183
4.2.4.1	Naturalness of Main Screening Report	183

4.2.4.1.1	Naturalness of Main Screening Report from The Perspective of Parents	184
4.2.4.1.2	Naturalness of Main Screening Report from The Perspective of Experts	186
4.2.4.2	Naturalness of Deep Screening Report	189
4.3	Summary of Findings	191
4.3.1	The Functional Performance	191
4.3.2	The Access Performance	191
4.3.3	The Accuracy of Identification Process	192
4.3.4	The Naturalness of Generated Sentence	192
5	CONCLUSION AND RECOMMENDATIONS	193
5.1	Conclusion	193
5.2	Recommendation	193
	Bibliography	194
	Main Screening Questionnaire	196
	Deep Screening Questionnaire (Previous)	200
	Deep Screening Questionnaire (Revised)	204
	Piloting V Result : Main Screening	209
	Piloting V Result : Deep Screening	215
	The Result of Identification Process Testing : Main Screening	218
	The Result of Identification Process Testing : Deep Screening (Previous Questionnaire)	225
	The Result of Identification Process Testing : Deep Screening (Revised Questionnaire)	228
	The Result of Naturalness Main Screening (Parents)	230
	The Result of Naturalness Main Screening (Experts)	233
	The Result of Naturalness Deep Screening (Experts)	236
	Curriculum Vitae	239