

# LIST OF FIGURES

2.1	Block Diagram Report Generation . . . . .	11
3.1	Designing Instrument and Scoring Method . . . . .	19
3.2	Evaluation result for background . . . . .	26
3.3	Evaluation result for Oral Language . . . . .	27
3.4	Evaluation result for Written Language . . . . .	27
3.5	Evaluation result for Social Language . . . . .	28
3.6	Evaluation result for Math . . . . .	28
3.7	Evaluation result for Sequence . . . . .	29
3.8	Evaluation result for Organization . . . . .	29
3.9	Evaluation result for Working Memory . . . . .	30
3.10	Evaluation result for Short Term Memory . . . . .	30
3.11	Evaluation result for Direction . . . . .	31
3.12	Evaluation result for Fine Motor Coordination . . . . .	31
3.13	Piloting result for Background . . . . .	33
3.14	Piloting result for Oral Language . . . . .	33
3.15	Piloting result for Written Language . . . . .	33
3.16	Piloting result for Social Language . . . . .	34
3.17	Piloting result for Math . . . . .	34
3.18	Piloting result for Sequence . . . . .	34
3.19	Piloting result for Direction . . . . .	35
3.20	Piloting result for Working Memory . . . . .	35
3.21	Piloting result for Organization . . . . .	35
3.22	The design of dyslexia early identification system (DEIS) . . . . .	43
3.23	Main Screening Data Processing . . . . .	46
3.24	Scoring process . . . . .	47
3.25	Deep Screening Data Processing . . . . .	50
3.26	Scoring process . . . . .	51
3.27	Main Screening Report Generation . . . . .	54
3.28	Template Generation . . . . .	55
3.29	Entities selection as variable process . . . . .	56
3.30	Knowledge generation process . . . . .	57
3.31	Entities selection process . . . . .	62
3.32	Sentence order for main screening report . . . . .	71
3.33	Content Determination and Document Structuring for Main Screening Report . . . . .	72
3.34	Main Screening report part 1 . . . . .	77
3.35	Main Screening report part 2 . . . . .	78
3.36	Deep Screening Report Generation . . . . .	78
3.37	Knowledge Generation for the deep screening report . . . . .	79
3.38	Complex Sentence Splitting for deep screening report . . . . .	84
3.39	Sentence order for deep screening report . . . . .	101

3.40 Content Determination and Document Structuring for Deep Screening Report . . . . .	103
3.41 Document Planning scheme for Oral Language . . . . .	104
3.42 Document Planning scheme for Written Language . . . . .	104
3.43 Document Planning scheme for Social Language . . . . .	105
3.44 Document Planning scheme for Math . . . . .	105
3.45 Document Planning scheme for Sequence . . . . .	106
3.46 Document Planning scheme for Organization . . . . .	106
3.47 Document Planning scheme for Working Memory . . . . .	107
3.48 Document Planning scheme for Fine Motor Coordination . . . . .	107
3.49 Micro planning for deep screening report . . . . .	110
3.50 Deep Screening report 1 . . . . .	121
3.51 Deep Screening report 2 . . . . .	122
4.1 The input of scenario RG1 . . . . .	138
4.2 The output of scenario RG1 part 1 . . . . .	139
4.3 The output of scenario RG1 part 2 . . . . .	140
4.4 The input of scenario RG2 . . . . .	141
4.5 The output of scenario RG2 part 1 . . . . .	142
4.6 The output of scenario RG2 part 2 . . . . .	143
4.7 The input of scenario RG3 . . . . .	143
4.8 The output of scenario RG3 part 1 . . . . .	144
4.9 The output of scenario RG3 part 2 . . . . .	145
4.10 The input of scenario RG4 . . . . .	146
4.11 The output of scenario RG4 part 1 . . . . .	147
4.12 The output of scenario RG4 part 2 . . . . .	148
4.13 The input of scenario RG5 . . . . .	149
4.14 The output of scenario RG5 part 1 . . . . .	150
4.15 The output of scenario RG5 part 2 . . . . .	151
4.16 The result of the access performance . . . . .	170
4.17 ROC Curve for Main Screening . . . . .	173
4.18 ROC Curve for Deep Screening Result (Mild Risk) . . . . .	176
4.19 ROC Curve for Deep Screening Result (Moderate Risk) . . . . .	176
4.20 ROC Curve for Deep Screening Result (Severe Risk) . . . . .	177
4.21 ROC Curve for Deep Screening Result (Mild Risk) . . . . .	180
4.22 ROC Curve for Deep Screening Result (Moderate Risk) . . . . .	181
4.23 ROC Curve for Deep Screening Result (Severe Risk) . . . . .	181
4.24 The clarity of main screening reports from the perspective of the parents . . . . .	184
4.25 Readability of main screening reports from the perspective of the parents . . . . .	185
4.26 Clarity of main screening reports from the perspective of the experts . . . . .	186
4.27 Readability of main screening reports from the perspective of the experts . . . . .	187
4.28 General Appropriateness of main screening reports from the perspective of the experts . . . . .	188
4.29 Clarity of deep screening reports from the perspective of the experts . . . . .	189
4.30 Readability of deep screening reports from the perspective of the experts . . . . .	190

4.31 General Appropriateness of deep screening reports from the perspective of the experts . . . . .	190
---	-----