

**Teaching reading to learners with intellectual developmental disorders: Practices
in the Foundation Phase**

By

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Submitted in fulfilment of the requirements for the degree.

PHILOSOPHIAE DOCTOR

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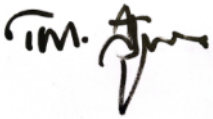
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DECLARATION OF ORIGINALITY

I, Stewart Karengwa (Student Number 13336064), hereby declare that this study titled **“Teaching reading to learners with mild intellectual developmental disorders: Practices in the Foundation Phase”** which I hereby submit for the degree Philosophiae Doctor in Educational Psychology at the University of Pretoria, is my own work and has not been previously submitted by me for a degree at this or any other tertiary institution.



.....
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March 2025

ETHICS CLEARANCE CERTIFICATE



FACULTY OF EDUCATION
Ethics Committee

RESEARCH ETHICS COMMITTEE

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CLEARANCE NUMBER: **EDU168/23**

DEGREE AND PROJECT

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13 December 2023

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- Compliance with approved research protocol,
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- Informed consent/assent,
- Adverse experience or undue risk,
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- Data storage requirements.

ETHICS STATEMENT

The author, whose name appears on the title page of this thesis, has obtained, for the research described in this work, the applicable research ethics approval. The author declares that he has observed the ethical standards required in terms of the University of Pretoria's *Code of ethics for researchers and the Policy guidelines for responsible research*.

ABSTRACT

This study aimed to investigate the reading instructional and intervention practices employed by Foundation Phase teachers in special schools in Gauteng in South Africa, to teach learners with Mild Intellectual Developmental Disorders (MIDD) to learn to read. Despite the prevalence of MIDD in special schools, there is a scarcity of research on effective reading instructional and intervention practices tailored to the unique needs of these learners. This mixed-methods study aimed to explore the current reading instructions and interventions used in the Foundation Phase in special schools, highlight their special features, identify factors influencing their use, and examine the extent to which they help learners to develop the foundational reading skills. A convergent parallel mixed methods design was utilised whose main objective was to investigate and gather both qualitative and quantitative data to understand the teaching and development of basic reading skills in Gauteng special schools through a mixed-methods study. Fifty-six Foundation Phase teachers from 34 MIDD special schools in Gauteng were investigated through a survey, interviews with 15 teachers and 10 principals, 15 observation sites and document analysis for 15 sites. The results revealed mixed views on the impact of teaching reading with many experienced teachers, indicating that it was difficult for most learners with MIDDs to read at grade level when they exit the Foundation Phase. Surprisingly, newly appointed teachers were positive about their teaching and how learners respond to instruction. Again, nearly all teachers were unhappy with their schools' reading programmes and reading resources for the Foundation Phase. This research provides valuable insights into the impact of instructional and intervention practices in special schools. It highlights the necessity of considering teacher development in reading and allocating appropriate resources for reading in special schools. The study contributes to reading advancement in the Foundation Phase for learners with mild intellectual developmental disorders. It encourages review of reading policy, classroom practices, and resources meant for reading in special schools in Gauteng.

KEYWORDS: Special schools, learning to read, reading to learn, foundation phase, reading instructional and intervention practices, Mild Intellectual Developmental Disorders (MIDD)

DECLARATION BY LANGUAGE EDITOR



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TO WHOM IT MAY CONCERN

I have edited Stewart Karengwa's thesis, *Teaching reading to learners with mild intellectual developmental disorders: Practices in the Foundation Phase*, and confirm that it is ready for publication or public viewing regarding language and style.

Please note that no view is expressed regarding the document's subject-specific technical contents or changes made after the date of this letter.

Kind regards



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DEDICATION

This thesis is dedicated to the learners with mild intellectual developmental disorders, their families, and teachers who strive to create an inclusive and supportive learning environment. May this research contribute to improving reading instruction, reading intervention, and reading outcomes for these learners.

ABBREVIATIONS

AAIDD	American Association of Intellectual and Developmental Disabilities
DBE	Department of Basic Education
DoE	Department of Education
EGRA	Early Grade Reading Assessment
FP	Foundation Phase
GDE	Gauteng Department of Education
ID	Intellectual disability
IEP	Individualised Education Programme
MIDD	Mild Intellectual Developmental Disorder
MTSS	Multi-Tiered System of Supports
NRP	National Reading Panel
PIRLS	Progress in International Reading Literacy Studies
RTI	Response to Intervention
SGB	School Governing Body
SIAS	Screen Identify Access and Support
SVR	Simple View of Reading
UDL	Universal Design for Learning

TABLE OF CONTENTS

DECLARATION OF ORIGINALITY	i
ETHICS CLEARANCE CERTIFICATE	ii
ETHICS STATEMENT	iii
ABSTRACT.....	viii
DECLARATION BY LANGUAGE EDITOR	vii
ACKNOWLEDGEMENTS.....	iv
DEDICATION.....	vi
ABBREVIATIONS.....	ix
TABLE OF CONTENTS.....	x
LIST OF FIGURES.....	x
LIST OF TABLES	xi

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY	1
1.1 INTRODUCTION	1
1.2 BACKGROUND OF THE STUDY	2
1.3 PROBLEM STATEMENT.....	5
1.4 RATIONALE FOR STUDY	6
1.4.1 Aims of the Study.....	6
1.4.2 Research Objectives of the Study.....	7
1.5 PURPOSE OF THE STUDY	7
1.6 RESEARCH QUESTIONS UNDER INVESTIGATION.....	8
1.6.1 Primary Research Question	8
1.6.2 Secondary Research Questions	8
1.7 HYPOTHESES	9

1.8	ASSUMPTIONS.....	9
1.9	SIGNIFICANCE OF THE STUDY	10
1.10	THEORETICAL BACKGROUND OF THE STUDY	11
1.11	CONCEPTUAL FRAMEWORK.....	11
1.12	CONCEPT CLARIFICATIONS.....	12
1.13	RESEARCH METHODOLOGY: OVERVIEW.....	14
1.13.1	Research Paradigm	14
1.13.1.1	Ontological Assumptions	14
1.13.1.2	Epistemological Assumptions	15
1.13.2	Methodological Approach	16
1.13.3	Research Design	16
1.13.4	Data Sources	16
1.13.5	Data Analysis.....	16
1.14	DELIMITATION OF THE STUDY.....	17
1.15	RESEARCH QUALITY CRITERIA	17
1.16	ETHICAL CONSIDERATIONS.....	17
1.17	OUTLINE OF CHAPTERS	18
1.18	CHAPTER SUMMARY	18
CHAPTER 2:	LITERATURE REVIEW.....	20
2.1	INTRODUCTION	20
2.2	CONCEPTUALISING MILD INTELLECTUAL DEVELOPMENTAL DISORDERS	21
2.2.1	Definition and Characteristics of Mild Intellectual Developmental Disorders	21

2.2.2	Causes of Intellectual Developmental Disorders.....	22
2.2.3	Treatment of Intellectual Developmental Disorders	22
2.2.4	Prevalence of Intellectual Developmental Disorders.....	23
2.2.5	Historical and Contemporary Perspectives on Intellectual Developmental Disorders.....	24
2.2.6	Understanding the Needs and Challenges of Learners with Mild Intellectual Developmental Disorders.....	26
2.2.6.1	The Learner with Mild Intellectual Developmental Disorder	28
2.2.6.2	Needs and Challenges of Learners with Mild Intellectual Disorders in School.....	30
2.2.6.2.1	Challenges With Mastering Basic Reading Skills	30
2.2.6.2.2	Challenges in Behaviour	31
2.2.6.3	Referrals to Special Schools	31
2.3	CONCEPTUALISING READING IN THE FOUNDATIONS PHASE.....	32
2.3.1	Reading Frameworks for the Foundation Phase.....	33
2.3.1.1	Reading Frameworks for the Foundation Phase.....	33
2.3.2	Policies to Support Foundation Phase Reading in Special Schools.....	34
2.3.3	Foundations of Reading	35
2.3.3.1	The Top-Down View of Reading	36
2.3.3.2	The Bottom-Up View of Reading.....	36
2.3.3.3	The Simple View of Reading.....	37
2.3.3.4	The Phonological Awareness Theory	37
2.3.4	Reading Development in the Foundation Phase.....	38
2.3.4.1	Learning to Read and Reading to Learn	38
2.3.4.2	Foundation Phase Reading Curriculum	38
2.3.4.3	How Children Start to Learn to Read	39

2.3.4.4	Developmental Stages in Reading.....	40
2.4	TEACHING READING IN THE FOUNDATION PHASE.....	41
2.4.1	The Controversy in the Teaching of Reading.....	42
2.4.2	Theories Informing the Teaching of Foundation Phase Reading	43
2.4.2.1	Behaviourism Learning Theory	44
2.4.2.2	Cognitive Learning Theory	44
2.4.2.3	The Working Memory and Cognitive Load Theory.....	45
2.4.2.4	Theories of Motivation in the Foundation Phase	48
2.4.2.5	The Growth Mindset Theory.....	49
2.5	TEACHING FOUNDATION PHASE READING	49
2.5.1	Reading Instruction for the Foundation Phase	50
2.5.1.1	Reading Instruction for Learners with Mild Intellectual Disorders.....	50
2.6	ASSESSMENT OF READING IN THE FOUNDATION PHASE.....	54
2.7	BARRIERS TO READING IN THE FOUNDATION PHASE	57
2.7.1	Extrinsic Barriers to Reading in South Africa	59
2.7.1.1	The Language of Teaching and Learning as a Barrier to Reading.....	59
2.7.1.2	Teacher Incompetence in Teaching Foundation Phase Reading.....	60
2.7.1.3	Department of Basic Education (DBE) Policy on Progression	61
2.8	READING INTERVENTIONS.....	62
2.8.1	Theories of Educational Interventions.....	62
2.8.2	Reading Intervention Policies.....	63
2.8.2.1	The MTSS Model of Reading Intervention	63
2.8.2.2	The SIAS Policy of Intervention in South Africa	64
2.8.3	Reading Interventions for Learners with Mild Intellectual Disorders.....	64
2.8.3.1	Phonics-Based Interventions	65

2.8.3.2	Phonemic Awareness Interventions	65
2.8.3.3	Fluency-Based Interventions	66
2.8.3.4	Comprehension-Based Interventions	66
2.8.3.5	Multisensory Interventions	67
2.8.3.6	Assistive Technology-Based Interventions	67
2.8.3.7	Other Reading Interventional Practices in the Classroom.....	67
2.8.4	Evidence-Based Reading Intervention Programmes	68
2.8.4.1	One-To-One Tutoring Programme	69
2.8.4.2	Classroom Instructional Process Programmes	69
2.8.4.3	Accelerated/Accelerwrite Programme	70
2.8.4.4	Wordsworth Literacy Programme.....	70
2.8.4.5	The Wilson Reading System.....	71
2.8.4.6	Peer Assisted Literacy Strategies (PALS).....	71
2.8.4.7	Cooperative Integrated Reading and Composition (CIRC)	71
2.8.4.8	Reading and Integrated Literacy Strategies (RAILS)	71
2.8.4.9	Reading Styles.....	72
2.8.4.10	Direct Instruction (DI)	72
2.8.4.11	Project Read	72
2.8.4.12	Precision Teaching	72
2.8.5	Research-Based Reading Intervention Programmes in South African Schools	73
2.9	GAPS IN LITERATURE	73
2.10	CHAPTER SUMMARY	76

CHAPTER 3: CONCEPTUAL FRAMEWORK FOR THE STUDY	78
3.1 INTRODUCTION	78
3.2 KEY THEORIES	78
3.2.1 Working Memory	78
3.2.2 The Simple View of Reading.....	82
3.2.3 Phonological Awareness Theory.....	83
3.2.4 The Universal Design for Learning.....	83
3.2.5 The Schoolwide Reading Model	85
3.2.5.1 Rationale for Choosing the Schoolwide Framework	88
3.2.5.2 Justification for Choosing the Schoolwide Framework.....	90
3.2.6 The Multi-Tiered System of Supports (MTSS)	90
3.3 INTEGRATION OF KEY THEORIES	91
3.3.1 Integration and Application to the Study	92
3.3.2 Conceptual Framework.....	93
3.3.2.1 Rationale for conceptual framework.....	94
3.3.3 Assumption and Limitations of the Conceptual Framework	94
3.3.4 Limitations of the Conceptual Framework.....	95
3.4 CHAPTER SUMMARY	95
 CHAPTER 4:RESEARCH METHODOLOGY	 96
4.1 INTRODUCTION	96
4.1.1 Research Context	96
4.2 RESEARCH PARADIGM.....	97
4.2.1 Epistemological Paradigm: Pragmatism	98
4.2.1.1 Epistemological Assumptions	98

4.2.1.2	Ontological Assumptions	100
4.2.2	Methodological Paradigm: Pragmatism	102
4.2.3	Methodological Approach: Mixed Methods	103
4.3	RESEARCH DESIGN: CONVERGENT PARALLEL MIXED METHODS	103
4.3.1	Research Sites (Multiple Sites)	105
4.3.2	Selection of Respondents/Participants	105
4.4	DATA SOURCES FOR THE STUDY	107
4.4.1	Primary Sources	107
4.4.2	Secondary Data Sources	107
4.4.3	Data Collection Techniques	108
4.4.3.1	Interviews	108
4.4.3.1.1	Face- to- Face, One-On-One Semi- Structured Interviews	108
4.4.3.1.2	Structured Interviews	109
4.4.3.2	Survey	110
4.4.3.3	Classroom Observation	111
4.4.3.4	Document Analysis	112
4.4.4	Measurement of Primary Data Collection	113
4.4.4.1	Primary Data Collection Measurement	113
4.5	DATA COLLECTION PROCESS	113
4.5.1	Data Collection Procedure	115
4.6	DATA ANALYSIS	115
4.6.1	Mixed Analysis	115
4.6.2	Quantitative and Qualitative Data Analysis Steps	116
4.6.2.1	Qualitative Analysis	116
4.6.2.2	Quantitative Analysis	119

4.6.3	Merging Findings and Interpretation	120
4.7	RESEARCH QUALITY CRITERIA	121
4.7.1	Quantitative Criteria (Rigour)	122
4.7.1.1	Measures Taken to Ensure Validity	122
4.7.1.2	Measures Taken to Ensure Reliability.....	122
4.7.2	Qualitative Criteria (Trustworthiness).....	123
4.7.2.1	Measures Taken to Ensure Credibility	123
4.7.2.2	Measures Taken to Ensure Dependability	123
4.7.2.3	Measures Taken to Ensure Confirmability	124
4.7.2.4	Measures to Ensure Transferability	124
4.8	ETHICAL CONSIDERATIONS.....	125
4.8.1	Permission to Carry out Research and to Enter Sites.....	125
4.8.2	Informed Consent	125
4.8.3	Voluntary Participation	125
4.8.4	Confidentiality and Anonymity.....	126
4.8.5	Protection from Harm.....	126
4.8.6	Respect for Participants.....	126
4.8.7	Beneficence	126
4.8.8	Data Storage and Security.....	127
4.9	CHAPTER SUMMARY	127
CHAPTER 5: RESULTS OF THE STUDY		128
5.1	INTRODUCTION	128
5.2	QUANTITATIVE RESULTS	128
5.2.1	Biographical Data of the Sample.....	128

5.2.1.1	Age of Teacher Respondents	131
5.2.1.2	Respondents by Gender	134
5.2.1.3	Professional Qualification and Experience	133
5.2.1.4	Teaching Reading Experience	134
5.2.2	Demographic Characteristics of the Respondents	134
5.2.2.1	Descriptive Statistics	134
5.2.2.2	Inferential Statistics	137
5.2.2.2.1	Confidence Interval for the Mean	137
5.2.2.2.2	Hypothesis Testing	136
5.2.2.2.3	Analysis of Variance	137
5.2.3	Teacher Reading Instructional Practices in the Foundation Phase	138
5.2.3.1	Foundation Phase Reading Class in Special Schools	138
5.2.3.1.1	Reading Class Size	138
5.2.3.1.2	Composition of Classes by Age	139
5.2.3.1.3	Progress Learners Make in Reading	140
5.2.3.1.4	Reading Levels of Learners	142
5.2.3.1.5	Organising Classes for Reading	143
5.2.3.1.6	How Reading is Timetabled	144
5.2.3.1.7	Challenges Faced by Reading Teachers	145
5.2.3.2	Reading Instructional Practices	146
5.2.3.2.1	Assigning Homework	150
5.2.3.2.2	Phonics Instruction	150
5.2.3.2.3	Evaluating Reading Instruction	150
5.2.3.2.4	Teaching Decoding	151
5.2.3.2.5	Library Reading Activities	151

5.2.3.2.6	Reading Aloud	151
5.2.3.2.7	Evaluation of Reading Intervention Programme	151
5.2.3.2.8	Assess Library Activities	152
5.2.3.2.9	Assessing Spelling.....	152
5.2.3.2.10	Reporting Progress to Parents.....	152
5.2.3.2.11	Using Computers to Learn to Read.....	152
5.2.3.2.12	Using Reading Books for Practising Reading	153
5.2.3.2.13	Using the Internet.....	153
5.2.3.2.14	Reading to the Teacher	154
5.2.3.2.15	Teaching new Vocabulary.....	154
5.2.3.2.16	Free Reading	154
5.2.3.2.17	Oral Comprehension.....	155
5.2.3.2.18	Written Comprehension	155
5.2.3.2.19	Let Learners Read Aloud to Themselves	155
5.2.4	Reading Intervention Practices Employed With Learners in Special Schools	156
5.2.4.1	Teacher Employ Own Interventions	156
5.2.4.2	Reading Intervention Employed With the Whole Class	156
5.2.4.3	Interventions have a Time Frame	158
5.2.4.4	Reading Interventions are Formal.....	157
5.2.4.5	Reading Interventions are Known Programmes	157
5.2.4.6	Reading Interventions are Once-Off Programmes.....	157
5.2.4.7	Early Identification of Struggling Readers Important.....	157
5.2.5	How Special Schools Support Reading Programmes	158
5.2.5.1	Reading Specialist in Special Schools	159

5.2.5.2	Schools' Approach to Foundation Phase Reading	160
5.2.5.3	Professional Development in Special Schools	161
5.2.5.4	Computers Used for Reading.....	162
5.2.5.5	Parental Involvement in Reading	162
5.2.5.6	Class size for Reading in the Foundation Phase	163
5.2.5.7	Support for Reading Teachers	164
5.2.6	Summary of Quantitative Results.....	164
5.3	RESULTS RELATING TO QUALITATIVE DATA SOURCES	164
5.3.1	Results from Teacher and Principal Interviews	165
5.3.1.1	Theme 1 Foundation Phase Reading Curriculum Design and Adaptation	166
5.3.1.1.1	Summary of Theme 1	167
5.3.1.2	Theme 2: Contextual Factors Influencing Teaching of Reading in Special Schools.....	169
5.3.1.2.1	Sub-Theme 2.1 Learners With Special Needs.....	170
5.3.1.2.2	Sub-theme 2.2 Reading Teacher Special Needs.....	170
5.3.1.2.3	Sub-theme 2.3 Resources for Reading.....	173
5.3.1.2.4	Sub-Theme 2.4 Organising Reading Class	175
5.3.1.2.5	Sub-Theme 2.5 Reading Time.....	175
5.3.1.2.6	Sub-Theme 2.6 Reading Space.....	176
5.3.1.2.7	Sub-Theme 2.7 Reading Policy	177
5.3.1.3	Theme 3: Reading Instructional, Technological and Intervention Practices.....	178
5.3.1.3.1	Sub-Theme 3.1: Reading Instructions and MIDD	179
5.3.1.3.2	Sub-Theme 3.2: Reading Interventional Practices.....	181
5.3.1.3.3	Sub-Theme 3.3 Reading and Technology in Special Schools	182

5.3.1.4	Theme 4 Impact of Teaching Reading in Special Schools	184
5.3.1.4.1	Sub-Theme 4.1 Assessment Of Reading in the Foundation Phase	185
5.3.1.4.2	Sub-Theme 4.2 Analysis of Reading Results	186
5.3.1.4.3	Sub-Theme 4.3 Reporting on Foundation Phase Reading to Parents	187
5.3.1.4.4	Sub-Theme 4.4: Evaluation of Foundation Phase Reading Programmes	188
5.4	CHAPTER SUMMARY	190
5.5	INTEGRATION OF QUANTITATIVE AND QUALITATIVE DATA	190
5.5.1	Comparative Analysis	191
CHAPTER 6: DISCUSSION OF THE FINDINGS		193
6.1	INTRODUCTION	193
6.2	INTEGRATED DISCUSSION OF RESULTS AND CONCEPTUAL FRAMEWORK.....	193
6.2.1	Foundation Phase Reading in Special Schools	193
6.2.2	Foundation Phase Reading Curriculum	194
6.2.3	Time Allocation for Teaching Reading	195
6.2.4	The Foundation Phase Learner in Special Schools in Gauteng.....	196
6.2.5	The Reading Teachers' Demographics and Teaching Background ...	197
6.2.5.1	Foundation Phase Reading Teachers by Gender	197
6.2.5.2	Reading Teachers by Age	198
6.2.5.3	The Reading Teacher and Experience	199
6.2.6	Diverse Reading Material and Resources for Foundation Phase Reading	200

6.2.7	How Reading Classes are Organised	201
6.2.8	Learning Reading Environment.....	202
6.2.9	Reading Policy for Foundation Phase	203
6.2.10	Reading Instructional Practices.....	204
6.2.11	Reading Aloud	205
6.2.12	Decoding.....	205
6.2.13	Modelled Reading	206
6.2.14	Free Reading	206
6.2.15	Assessing Reading Comprehension	207
6.2.16	Assessing Spelling And Vocabulary.....	207
6.2.17	Reading Interventions for the Foundation Phase	208
6.2.18	Technological Integration in the Teaching of Foundation Phase Reading	209
6.2.19	Challenges in the Teaching of Reading in Special Schools	210
6.2.20	Foundation Phase Learner Progression and Outcomes in Reading ..	211
6.2.21	Assessing Foundation Phase Reading	212
6.2.22	Feedback from Reading Assessments	213
6.2.23	Teachers' Perception of Foundation Phase Reading Programmes ...	214
6.3	SITUATING THE FINDINGS WITHIN THE CONCEPTUAL FRAMEWORK.	215
6.4	CHAPTER SUMMARY	216
CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS		218
7.1	INTRODUCTION	218
7.2	ADDRESSING THE RESEARCH QUESTIONS	219
7.2.1	Secondary Research Question 1	219

7.2.1.1	Reading Instructional Practices And Special Features	219
7.2.1.2	Reading Interventional Practices and Special Features.....	223
7.2.2	Secondary Research Question 2	222
7.2.2.1	The Foundation Phase Learner in Special Schools	224
7.2.2.2	The Foundation Phase Reading Teacher	224
7.2.2.3	Resources for Foundation Phase Reading	225
7.2.2.4	Specialised Reading Instruction and Learning Support	224
7.2.2.5	Time Allocation for Teaching Reading	226
7.2.2.6	Reading Policy for the Foundation Phase.....	226
7.2.3	Secondary Research Question 3	226
7.2.3.1	Physical Reading Environment	227
7.2.3.2	The Reading Environment	227
7.2.3.2.1	Emotional Reading Environment	228
7.2.3.2.2	Intellectual Reading Environment	228
7.2.4	Secondary Research Question 4	228
7.2.5	Primary Research Question.....	229
7.3	CONTRIBUTION OF THE STUDY	232
7.3.1	Contribution due Focus Area of Study	232
7.3.2	Methodological Contribution	233
7.3.3	Contribution to Practice.....	233
7.4	REFLECTING ON THE LIMITATION OF THE STUDY.....	234
7.5	RECOMMENDATIONS.....	235
7.5.1	Recommendations for Training	235
7.5.2	Recommendations for Policy Development	235
7.5.3	Recommendations for Practice	236

7.5.4	Recommendations for Future Research	237
7.6	CONCLUDING COMMENTS	238
	REFERENCES	240
	APPENDICES	263
	APPENDIX A: SURVEY QUESTIONNAIRE.....	263
	APPENDIX B: INTERVIEW SCHEDULE FOR TEACHERS	274
	APPENDIX C: INTERVIEW SCHEDULE FOR PRINCIPALS	279
	APPENDIX D: READING ENVIRONMENT OBSERVATION TOOL	284
	APPENDIX E: SAMPLE REQUEST LETTER TO GAUTENG	286
	APPENDIX F: REQUEST LETTER TO SCHOOL PRINCIPALS	289
	APPENDIX G: CONSENT LETTER TO FP READING TEACHERS	290
	APPENDIX H: CONSENT LETTER TO SPECIAL SCHOOL PRINCIPALS	293
	APPENDIX I: DATA COLLECTION SCHEDULE	297
	APPENDIX J: DESCRIPTIVE RESULTS FOR THE SURVEY	300
	APPENDIX K: EXAMPLE – TRANSCRIBED DATA- TEACHER INTERVIEWS	307
	APPENDIX L: EXAMPLE - DESCRIPTIVE RESULTS PRINCIPAL INTERVIEWS ...	319
	APPENDIX M: CODES AND THEMES FROM TEACHER INTERVIEWS	331
	APPENDIX N: CODES AND THEMES FOR PRINCIPALS INTERVIEW.....	343
	APPENDIX O: GAUTENG DEPARTMENT OF EDUCATION RESEARCH	
	APPROVAL LETTER	354

LIST OF FIGURES

Figure 2.1 <i>The Multi-Component WM Model</i>	46
Figure 2.2 <i>Diagram to illustrate the MTSS model of reading intervention</i>	63
Figure 3.1 <i>Working Memory (WM)</i>	79
Figure 3.2 <i>The Cognitive Load</i>	80
Figure 3.3 <i>The Simple View of Reading (SVR) Model</i>	82
Figure 3.4 <i>Principles of the UDL Framework</i>	84
Figure 3.5 <i>Schoolwide Model of Reading</i>	87
Figure 3.6 <i>Principles of the MTSS Framework</i>	90
Figure 3.7 <i>Instruction and Number of Learners and Intervention</i>	91
Figure 3.8 <i>Theoretical Integration</i>	92
Figure 3.9 <i>Model of Conceptual Framework for Special School FP</i>	93
Figure 4.1 <i>Map of Gauteng Province in South Africa</i>	96
Figure 4.2 <i>Map of the major Cities of Gauteng - Pretoria and Johannesburg</i>	97
Figure 4.3 <i>Convergent Design</i>	105
Figure 4.4 <i>Convergent Parallel Analysis</i>	116
Figure 5.1 <i>Average age of Respondents</i>	132
Figure 5.2 <i>Summary of Respondents by Gender</i>	133
Figure 5.3 <i>Class Sizes in the FP in Special Schools</i>	140
Figure 5.4 <i>Average age of Learners</i>	141
Figure 5.5 <i>Average Reading Levels of FP Classes Taught</i>	144
Figure 5.6 <i>Organising Classes for Reading Instruction</i>	145
Figure 5.7 <i>Adequacy of Reading Time</i>	146
Figure 5.8 <i>The School Has a Reading Specialist</i>	160
Figure 5.9 <i>Reading is Taken Seriously by the School</i>	161
Figure 5.10 <i>There is Professional Development for Reading Teachers in the School</i>	162
Figure 5.11 <i>Reading Class Size Reasonable and Manageable</i>	163
Figure 5.12 <i>Summary of Themes and Sub-Themes</i>	166
Figure 7.1 <i>Reading Model for MIDD Foundation Phase</i>	238

LIST OF TABLES

Table 4.1 <i>Summary of Respondents/Participants</i>	106
Table 4.2 <i>Primary Data Source Management</i>	113
Table 4.3 <i>Data Collection Process</i>	114
Table 4.4 <i>Alignment of Quality Criteria Across Quantitative, Qualitative and Mixed Methods Research</i>	121
Table 5.1 <i>Reading Teacher-Participants' Biographical Details</i>	129
Table 5.2 <i>Demographic Characteristics of the Respondents</i>	136
Table 5.3 <i>Progress Being Made in Learning to Read</i>	142
Table 5.4 <i>Reading Instructional Practices Employed by Teacher</i>	148
Table 5.5 <i>Intervention Practices for FP Reading</i>	155
Table 5.6 <i>How the School Supports FP Reading</i>	159
Table 5.7 <i>Inclusion and Exclusion Criteria</i>	167
Table 5.8 <i>Contextual Factors Influencing the Teaching of Reading Inclusion and Exclusion Criteria</i>	170
Table 5.9 <i>Reading Learning Space</i>	177
Table 5.10 <i>Reading Instructional, Technological, and Interventional Practices: Inclusion and Exclusion Criteria</i>	178
Table 5.11 <i>Summary of the Criteria Used in Selecting Items</i>	184
Table 5.12 <i>Convergence of the Quantitative and Qualitative Results</i>	191

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Reading is fundamental to human development, essential for personal, academic, and professional growth (Raimjanovna, 2023). The pursuit of effective reading instruction, especially for teaching Foundation Phase (FP) learners in Early Childhood Development stages (ECD) to Grade 3, of primary school to crack the reading code (Castles et al., 2018), remains a pressing globally concern, with extensive research paradigm shifts, and debates spawning diverse theories and reading policies (Wyse & Bradbury, 2022). In this regard, FP reading for learners with mild intellectual developmental disorders in special schools in South Africa, whose FP is different from that of mainstream schools, appears to be neglected, with limited research and resources available to support their reading development (C. Tomlinson, 2023). This study aimed to address this knowledge gap by investigating the current reading instructional and interventional practices employed in special schools in Gauteng to support the reading development of these learners in the FP. Mild intellectual developmental disorder (MIDD) is a neurodevelopmental disorder that often affects reading ability. Internationally and nationally, various reading instructional and intervention programmes have emerged in primary school (National Reading Panel [NRP], 2000; Spaul, 2023). Notwithstanding the implementation of these programmes and initiatives, research indicates that many primary school learners continue to struggle with reading (Department of Basic Education [DBE], 2024). This ongoing challenge is often attributed to inadequate reading instruction by teachers, highlighting the need for investigation into teaching reading practices in schools.

Globally, no comprehensive statistics are available on the number of primary school learners who cannot read. However, insights from South Africa and other parts of the world reveal alarming trends in primary school reading. In the United States of America, it is believed that 40% of learners across the nation cannot read at a basic level on the National Assessment of Educational Progress (NAEP) test (National Centre of Educational Statistics, 2025). In Africa, 22% of primary-aged children are not in school, meaning they are not even learning to read in the first place (African Library Project, 2025). For South Africa, the Progress in International Reading Literacy Study (PIRLS) of 2021 reported very low performance levels on learners' ability to read

for meaning at the age of 10, with all participating African countries performing below the international average (Department of Basic Education [DBE], 2024). Further, the 2023 Reading Panel report indicates that basic literacy among South African children is declining (Spaull, 2023).

This study presents the findings of a mixed methods inquiry which explored the nature and effectiveness of teacher reading instructional and interventional practices employed with FP learners with mild intellectual developmental disorders in special schools in Gauteng Province, South Africa. By investigating these practices, the aim was to contribute to developing effective reading instructions and interventions for learners with mild intellectual developmental disorders in special schools in Gauteng. The chapter provides a comprehensive overview of the thesis, commencing with an examination of the contextual background which led to this research study. The problem statement and rationale for the study are subsequently presented by providing a clear justification for the investigation.

The chapter then outlines the study's aims and objectives, which served as the foundation for the research questions and concept clarification. A nuanced discussion of the theoretical background underpinning the research is presented, accompanied by an introduction to the conceptual framework that guided the study. Further, this chapter provides an outline of the research methodology, including data collection and analysis procedures. While a detailed exposition of these processes is reserved for Chapter 4, this chapter offers a preliminary overview to contextualise the study's design and approach. The chapter concludes with an outline of the chapters and a summary of the key takeaways from this introductory chapter.

1.2 BACKGROUND OF THE STUDY

Teaching children to read at grade level in the FP is a complex, multifaceted issue that has garnered significant attention in primary education globally. In South Africa, considerable efforts are being made to achieve this goal, although challenges persist (Tomlinson et al., 2024). In the Gauteng Province, special schools play a vital role in complementing primary education by providing tailored support, including reading instruction, to learners with Mild Intellectual Developmental Disorders (MIDD) (DBE, 2020). All the learners in the special schools in Gauteng are referrals from mainstream primary schools, and they receive a differentiated curriculum in subjects like

Mathematics, Languages, and Life Science in addition to vocational education. Reading is embedded in the language subjects and is not a stand-alone subject. However, research on the reading progress of Learners with MIDDs in primary schools is scarce (Makgato et al., 2022), highlighting a critical knowledge gap that warrants investigation.

In the FP, reading instruction and intervention are critical for Learners with MIDDs as they lay the foundation for the academic future (NRP, 2000). More so, learning to read in the FP is regarded worldwide as an important educational goal for every child, and as the focus of primary education at this stage (Wyse & Bradbury, 2022). As pointed out by Gibb (2022), the ability to read unlocks the academic curriculum and impacts a child's academic future, well-being, and success in life. Again, reading is the skill by which all learners get information from books, computers, worksheets, and boards when they learn different subject content, such as science and mathematics (Tau, 2023). Once learners get reading right in the FP, reading transcends all forms of learning in the child's life (Gumede & Boakye, 2020). On the other hand, poor reading is said to narrow a learner's choices in school and after school (Sparks, 2021), which has a lasting negative effect on the learner's life. Again, in this digital world, where learners participate as full citizens in the new technological and communicative era, being able to read becomes a must for every child (Raimjanovna, 2023).

Taken together, it is crucial to monitor the reading progress of learners in the FP of the school. . This is even more important for Learners with MIDDs in special schools who have an underlying disorder. It is often assumed that FP learners with mild intellectual developmental disorders may face insurmountable challenges in acquiring reading skills, including decoding, comprehension and memory (AAIDD, 2021). Reading, especially reading comprehension, strongly correlates with intelligence quotient level (IQ) (Alnahdi, 2015). As defined by the American Association of Intellectual and Developmental Disabilities (AAIDD), intellectual developmental disorders are characterised by significant limitations in intellectual functioning and adaptive behaviour (AAIDD, 2021), typically measured by IQ scores below 70-75. This low level of IQ clarifies the link with the difficulties they encounter while learning to read.

However, other studies suggest that learners with intellectual developmental disorders can indeed learn to read, albeit with adapted instruction and support (Krashen, 2004;

Moats, 2010; NRP, 2000; Torgesen, 2004). Studies have shown that these learners can develop basic reading skills, such as recognising sight words, decoding simple texts, and comprehending basic stories, when provided with systematic and explicit instruction tailored to their individual needs (Hallahan, 2015; Shree & Shukla, 2016). These contrasting views as well as other reading related issues concerning learners with mild intellectual developmental disorders in special schools were determined by the data collected from teacher and principal interviews, survey questionnaire, and direct observation of the reading classroom, and whose results are presented in Chapter 5 of this study.

According to Ehri (2020), learning to read, the purpose of FP reading instruction, develops in stages, starting with phonological awareness. This study builds on this understanding that learning to read is a process and that one part of the process influences other parts. This progression implies that if learners do not master the basics of reading in the FP, it becomes difficult for them to be readers. This explains the worldwide concern (Klapwijk & Pretorius, 2016) about low school reading levels. Although much research has been published in South Africa showing that many learners in early primary school cannot read at grade level (Phala & Hugo, 2022), there is little information about special schools. Additionally, how reading develops in special schools and how teachers and learners cope with challenges in the reading classroom remain hidden in the minds of special school teachers. Studies in South Africa report language issues, large class sizes, teachers not trained to teach reading, lack of resources, inappropriate teaching methods and techniques, and lack of parental support for the challenges facing the reading teacher in mainstream schools, leaving us to wonder what it is like in special schools (Condy & Blease, 2014; Department of Education [DoE], 2008; Mudzielwane, 2014).

In this context, the research attempted to evaluate the present methods and problems of teaching reading to learners with minor intellectual developmental impairments in special schools in Gauteng, emphasising the FP. Exploring the complexities of teaching reading to learners with mild intellectual developmental disorders aimed to contribute to developing effective reading instruction and support strategies that can improve the academic outcomes and quality of life for these learners.

Ultimately, the researcher seeks to contribute to the understanding of effective reading instruction for learners with mild intellectual developmental disorders. By exploring the challenges and opportunities in teaching reading to this population, this research aims to inform evidence-based practices that promote inclusive education and support the diverse needs of these learners.

1.3 PROBLEM STATEMENT

Despite the critical importance of teaching foundational reading skills to FP learners, particularly those with MIDD, there is a scarcity of research on the progress learners with MIDDs make in reading in special schools in Gauteng, as well as the challenges and opportunities special teachers encounter in teaching these learners. This knowledge gap is concerning, as mastering basic reading skills is a fundamental skill for reading proficiency later on, affecting learners' overall academic achievement and future opportunities. Furthermore, learners with mild intellectual developmental disorders require specialised instruction and support to develop foundational reading skills, highlighting the need for targeted research in this area (Makgato et al., 2022). For example, and more importantly to this study, it is not known how teachers wade through the challenges (Condy & Blease, 2014; Dagada, 2022; Gopie, 2017) in the special school reading classroom to enable learners with special educational needs such as mild intellectual developmental disorders effectively to master the foundational reading skills. Relatedly, even though reading remains as the foundation of learning in South Africa, the growing concern is that learners in the FP of primary school fail to read at grade level (Spaull, 2023), which should also worry special schools. This problem's scope and what can be done in mainstream schools are well-known and documented (Meiklejohn et al., 2021; Prinsloo, 2021; Spaull, 2023; Tau, 2023). However, the same is not true for special schools, whose problems with reading are less known. Additionally, many scholars prefer to concentrate on comprehension reading, thus creating a knowledge gap in FP reading (Phala & Hugo, 2022). Furthermore, FP reading for learners with MIDDs in South Africa has far-reaching consequences in that they might be left out of reading programmes meant to benefit them (Stent, 2023). Therefore, this study aimed to explore the reading instructional and intervention practices employed by FP teachers to teach learners suffering from MIDDs to read and examine the learners' progress in learning to read in special schools in Gauteng.

1.4 RATIONALE FOR STUDY

The rationale for this study is threefold: addressing a critical gap, improving reading outcomes, and informing evidence-based practices.

First, research on reading instruction for learners with mild intellectual developmental disorders is scarce, particularly in the South African special schools' education context (Makgato et al., 2022). This study aimed to address this critical gap by investigating the reading instructional and interventional practices employed by FP teachers in special schools in Gauteng to find out how these practices enhance the reading development of these learners.

Second, learners with mild intellectual developmental disorders require specialised reading instruction and support (Wanzek et al., 2018) to acquire the skills necessary for academic and vocational success. By examining the current reading instructional and intervention practices used in the FP in special schools, this study aimed to identify effective strategies for improving reading outcomes for these learners.

Third, this study's findings will contribute to developing evidence-based reading instructional and intervention practices for Learners with MIDDs in special schools in Gauteng (DBE, 2024). This contribution will ultimately inform policy and practice, ensuring these learners receive the support and instruction needed to succeed.

1.4.1 Aims of the Study

The mixed-methods study explored special school teachers' reading instructional and interventional practices in Gauteng, South Africa, to teach FP learners to read. The aim was to explore and gain a further understanding of the special features of these practices and further examine their effectiveness in teaching and learning reading in the FP with learners with mild intellectual developmental disorders.

The study also examined the effects of practices utilised by special school teachers to improve reading through scientific research on best adapting instruction to the needs of individuals with mild intellectual developmental disorders. The goal was to inform and expand our knowledge in understanding how learners with specific disabilities in special schools can best be taught to learn to read and how instructional and interventional practices targeting their reading work for them. This objective is also

linked with the Early Grade Reading Study (EGRS) goal of building evidence about what works to improve early-grade reading.

A convergent parallel mixed methods design was adopted, which means that qualitative and quantitative data was gathered simultaneously, analysed individually, and then merged. In this research, quantitative data were utilised to investigate word reading's crucial function as a predictor of response to instructional strategies influencing the development of foundational core reading abilities. The objective for gathering quantitative and qualitative data in this research was to ensure data triangulation and complementarity.

1.4.2 Research Objectives of the Study

The research objectives of this study were:

- This study explores the nature and characteristics of reading instructional and interventional practices employed by special school teachers in Gauteng. Its primary focus is on determining their effectiveness, and its secondary focus is on how these practices influence the acquisition of foundational reading skills by Foundation Phase learners with mild intellectual developmental disorders.
- To explore the utilisation of reading instructional and interventional practices by special school teachers and examine how learners with mild intellectual disability respond to instruction as feedback to teachers and other stakeholders to enhance teaching, policy, teacher training, professional development, and curriculum planning for special schools
- To gain an in-depth understanding of how learners with mild intellectual developmental disorders learn to read and determine their reading progress
- To examine the extent to which the teaching and learning reading environment meets the needs of a learner with mild intellectual developmental disorders

1.5 PURPOSE OF THE STUDY

This study's purpose was to explore the teaching of FP reading in special schools in Gauteng and enhance our knowledge of the nature and effectiveness of reading instructional and interventional practices employed by teachers to teach reading to learners with mild intellectual developmental disorders. In addition, it aimed to examine the extent to which reading instruction led to these learners' mastery of the

foundational reading skills. This objective was achieved by converging quantitative data from the survey and qualitative data collected from the schools through interviews, observations and document analysis. The data was collected simultaneously, analysed separately, and integrated into the results. The schoolwide model was adapted for the conceptual framework due to its comprehensive and integrated approach to reading instruction in foundational reading skills, which aligns with the complex needs of learners with mild intellectual developmental disorders.

Relatedly, the generated baseline data helped us understand the nature and effectiveness of reading instructional and interventional practices utilised by special school teachers of Gauteng. Again, the findings are fed back to FP teachers on the effectiveness of reading instructional and interventional practices they utilise to improve these learners' acquisition of foundational reading skills. Even more importantly, the findings lead to identifying reading instructions and interventions that improve early-grade reading in the special schools in Gauteng and inform teacher training and professional development. The findings have the potential to strengthen the relationship and interface between learning to read in the FP, reading instruction, classroom reading practices and reading interventions. They can guide instruction to improve reading for special school learners with mild intellectual developmental disorders.

1.6 RESEARCH QUESTIONS UNDER INVESTIGATION

The primary and secondary research questions addressed in this study are outlined below.

1.6.1 Primary Research Question

How do teachers' reading instructional and intervention practices influence the reading development of Foundation Phase learners with mild intellectual developmental disorders in special schools in Gauteng?

1.6.2 Secondary Research Questions

- What reading instructional and intervention strategies do special school reading teachers use to support learners with mild intellectual developmental disorders in mastering foundational reading skills, and what adaptations or features make these strategies effective?

- What contextual factors influence the teaching and learning of foundational reading skills in special school classrooms, and how do these factors impact teaching practices and student reading outcomes for learners with mild intellectual developmental disorders?
- To what extent does the Foundation Phase reading environment in special schools in Gauteng promote the teaching and learning of basic reading skills with MIDD learners?
- What is the relationship between special school teachers' and principals' self-efficacy beliefs regarding teaching Foundation Phase reading and the progress learners with mild intellectual developmental disorders make at benchmark levels?

1.7 HYPOTHESES

This study also investigated teacher demographics as one of the factors influencing the teaching of MIDD reading. Specifically, we hypothesised that:

- **Null Hypothesis (H₀):**

There is no significant difference in the teaching of FP reading to learners with MIDD between younger and older teachers in special schools of Gauteng.

- **Alternative Hypothesis (H₁):**

There is a significant difference in the teaching of FP reading to learners with MIDD between younger and older teachers in special schools of Gauteng.

1.8 ASSUMPTIONS

The study was based on the following assumptions:

- Learners with mild intellectual developmental disorders can learn to read with appropriate instructional and interventional practices in place.
- Foundation Phase teachers can teach learners with mild intellectual developmental disorders to read with relevant knowledge and adequate resources.
- Intervention policies, theories of reading, reading interventions, and teachers' experience and knowledge of learners with mild intellectual developmental disorders all positively influence instructional and interventional practices and teachers' approach to teaching reading in the Foundation Phase.

- Learners benefit from special instructional and interventional practices, and their reading improves in special schools.

1.9 SIGNIFICANCE OF THE STUDY

The significance of the study lies in its potential to contribute meaningfully to the body of knowledge on teaching reading to learners with mild intellectual developmental disorders in the FP. The findings can inform the development of evidence-based reading instructional and interventional practices, as well as resources targeting these learners. In the end, this can lead to improved learning outcomes and life opportunities for this vulnerable population (Engelbrecht, 2011). Research has consistently shown that learners with mild intellectual developmental disorders face significant challenges in acquiring reading skills (Alnahdi, 2015; Austin & Vaughn, 2019; Obiakor & Bakken, 2019; Shree & Shukla, 2016).

Moreover, the South African education system's efforts to promote reading and provide quality education to all learners in school are hindered by a lack of research-based instructional practices and resources (DBE, 2024). This study can contribute to addressing this knowledge gap by investigating the reading instructional practices employed in special schools in Gauteng Province with learners with mild intellectual developmental disorders. Findings from the study could raise awareness on the state of teaching reading in the FP in special schools in Gauteng and offer research-based solutions. One of the goals of the Early Grade Reading Assessment Program (EGRA) is to seek research-based solutions to the reading challenges faced in the FP in South Africa (DBE, 2022).

The purpose of primary school education in the FP is for every child to be able to read; therefore, teaching starts with learning to read worldwide (Wyse & Bradbury, 2022). Even where learners are referred to special schools, the FP is all about learning to read. There is a need to monitor FP reading in special schools, which is also the aim of this study so that learners with mild intellectual developmental disorders are not left behind in mastering basic reading skills.

The ability to read is what education is all about in schools, as learners have to learn other subjects through their reading. Studies inform us that there is a high correlation between reading and academic success (Chall et al., 1990; Law, 2012; Torgesen, 1999). The value of this research is that it sheds light on whether reading instructional

and interventional practices employed by teachers in these schools are helping to improve the reading of learners with mild intellectual developmental disorders in the FP. Once the reading progress is known, it can direct curriculum planning, teaching, interventions, and teacher development.

Additionally, a reading model for the FP could be developed from the results thereby strengthening the teaching of reading in special schools. In the end, this will benefit learners with mild intellectual developmental disorders.

More importantly, the study's focus on the FP underscores the critical importance of early intervention and support for learners with intellectual developmental disorders. Research has shown that targeted interventions during this phase can have a lasting impact on learners' reading development (Kilpatrick, 2015; Moats, 2010).

Therefore, the results from the Gauteng study can be generalised to other special schools as a yardstick to describe the effect of specific instructional and interventional practices in teaching reading to learners with mild intellectual developmental disorders.

1.10 THEORETICAL BACKGROUND OF THE STUDY

Several theories, policies, concepts, and models were integrated to underpin the study, such as theories of reading, theories of teaching and learning, theories of reading intervention, the schoolwide model of reading, FP reading frameworks and Screen, Identify, Access and Support (SIAS) policy. Teaching reading to learners with mild intellectual developmental disorders requires a deep understanding of factors influencing teaching and learning, which emanate from these theories, policies, reading frameworks, and models. A detailed discussion of the theories, frameworks and policies is done in Chapter 2.

1.11 CONCEPTUAL FRAMEWORK

The schoolwide model of reading (Zins & Ponti, 1990) was adapted and integrated with other theories and reading frameworks to form a conceptual framework for the study. The conceptual framework is presented and discussed in detail in Chapter 3.

1.12 CONCEPT CLARIFICATIONS

In attempting to address the objectives of this study, a closer look at the following terms is essential: learning to read, reading to learn, mild intellectual developmental disorders, FP, and special school.

Learning to Read

Reading in school is about learning to read to learn (Ehri, 2020). More importantly, children do not just become readers without a teacher (Gibb, 2022). According to Pollatsek and Treiman (2015), learning to read is when a reader starts reading from graphemes, phonics, and decoding and segmentation, which are the foundational reading skills.

Reading to Learn

Reading to learn follows when the reader has mastered the basic reading skills and can read for comprehension (Henning, 2016). The need to acquire this skill makes FP reading in schools of great importance (Wyse & Bradbury, 2022), as it is the starting point of reading. Therefore, learners must master the foundational reading skills first to read for meaning in any subject later. In South Africa and internationally, reading to learn is the reading objective in schools from Grade 4 onwards, when learners must be able to comprehend what they read to acquire new knowledge (Spaull, 2017).

Intellectual Developmental Disorders (Disability)

The American Association of Intellectual and Developmental Disability (AAIDD) defines intellectual developmental disorder (disability) as a condition marked by significant limitations in both intellectual and adaptive behaviour (AAIDD, 2021). According to the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), the disorder can be classified as mild, severe, or profound. However, there is no cure for this disability (American Psychiatric Association, 2013), which makes interventions in special schools a must. This study focused on mild intellectual disability, which is further discussed in Chapter 2. Knowledge of the causes, treatment, and care is necessary for the teacher as this informs the reading interventions for such learners. It was, therefore, necessary to elicit teachers' understanding of the process of learning to read in general and how they teach learners in special schools in particular to identify the special features of instructions

and interventions they employ in reading. Research in education in South Africa is silent on this topic.

Barriers to Reading

Barriers to reading, reading difficulties, or reading disability are challenges that stand in the way of the learner and create problems with reading (DBE, 2014a; McGill-Franzen & Allington, 2011). These challenges come in many forms, but once a teacher identifies them, they can be redressed through appropriate interventions. In South Africa, PIRLS reports have always ignited extensive research on the causes of poor reading in primary schools at the national level, as reported in the literature (Phala & Hugo, 2022; Prinsloo, 2021; Spaul, 2023; Stent, 2023). However, this has not been so for reading in special schools, hence this study. There is little research reported in the literature on the barriers that are peculiar to South African children with mild intellectual developmental disorders, in addition to the general barriers reported in most research. This study aims to narrow this knowledge gap.

Educational Intervention

An intervention in education is providing additional support to learners performing below grade level in schoolwork (Scales, 2021). In other words, intervention is a series of steps a teacher takes to help a learner improve in the area of need by removing educational barriers or gaps. Additionally, educational interventions are strategies used to support any aspect of learning, including academic intervention, accommodations, and modifications. Academic intervention measures gaps in a student's learning compared to grade-level standards. Academic interventions help learners succeed in meeting grade-level expectations.

Reading Interventions

Reading interventions are, therefore, specialised instructions given to learners to help them succeed in meeting grade-level expectations once barriers or gaps in learning to read or reading to learn have been identified.

Mainstream Schools

These are “ordinary public schools in the academic stream in South Africa” (DBE, 2011)

Special School

A special school in South Africa is a school for special needs learners who require highly intensive support on a full- or part-time basis (DBE, 2014b).

Foundation Phase

The FP covers the lower grades in the primary school system of South Africa (Grades 1–3 classes). The same lower grades are called the Orientation Phase classes in special schools. The first year in a special school is Orientation 1, and the second year is Orientation 2. In both cases, reading is the main focus of school.

1.13 RESEARCH METHODOLOGY: OVERVIEW

This section provides a brief overview of the methodology used for the study. A detailed description of each component of the methodology introduced here is given later in Chapter 4.

1.13.1 Research Paradigm

A paradigm is a set of beliefs that can underpin a study (Creswell & Creswell, 2018). Further, a paradigm can refer to epistemology, ontology or methods employed in the study. This study has its roots in pragmatism. Pragmatism takes the epistemological perspective that knowledge should be explored using the best means to solve the issue. According to Biesta (2010, p. 711), pragmatism rejects the “traditional philosophical dualism of objectivity and subjectivity” and assumes independence of methods (Tashakkori & Teddlie, 2010). By adopting this position, the pragmatic researcher may choose the most suitable research design and technique to answer the research issue (Pansiri, 2005). Pragmatism orients towards solving practical problems in the real world (Kaushik & Walsh, 2019), which also makes the paradigm appropriate for this study.

1.13.1.1 Ontological Assumptions

Ontology is defined by Farrow et al. (2020) as “the study of being”. In other words, the nature of reality, its core characteristics, its origin, and what we can observe (Kaushik & Walsh, 2019). Ontologically, the study is based on pragmatism, which acknowledges that there is no single reality, and that reality is socially constructed and based on an individual’s experiences (Moon & Blackman, 2014). The study further holds the pragmatic philosophy that reality is subjectively and objectively situated and accepts

multiple realities' existence. Therefore, the current study used an ontology of a social world of meanings as well as relativism.

The researcher assumes that the world is populated by teachers who teach learners to read and FP learners with mild intellectual developmental disorders who are learning to read. To investigate this world, the researcher used mixed-methods research and techniques of the convergent parallel design, including surveys, interviews, direct observations, and document analysis, to collect data from the participants.

These tools were used to collect data to interpret the teachers' understanding, experiences, and inner thoughts regarding the nature and efficacy of reading instructions they utilise and how learners with mild intellectual developmental disorders respond to instruction. Goldhuhl (2012) pointed out that the ontological purpose of an inquiry is to investigate and understand some part of reality and create knowledge to bring change to that part of reality. Thus, a mixed methods study was carried out to find out what happens to the reading performance of learners with mild intellectual disability if certain instructional and interventional practices were used.

1.13.1.2 *Epistemological Assumptions*

Crotty (2020) defined epistemology as “a way of understanding and explaining how we know what we know”. Farooq et al. added that epistemology studies systematic, reliable knowledge and the methods used to generate that knowledge (Farrow et al., 2020). Additionally, it can also be the philosophy behind knowledge.

The philosophy behind this study is pragmatism. Pragmatism takes the epistemological stance that knowledge is both subjective and objective. Further, knowledge is based on an individual's experiences, and each person's knowledge is unique. Gole and Hirschheim (2000) posit that acquiring knowledge is a continuum rather than two opposing and mutually exclusive poles of either objectivity or subjectivity. This study agrees that either observable phenomena and subjective meanings or both can provide acceptable knowledge dependent upon the research question (Al-Ababneh, 2020).

In this study, the researcher was trying to answer the question: “How do teachers' reading instructional and intervention practices for FP learners with mild intellectual

developmental disorders (MIDD) in special schools in Gauteng inform our knowledge and enhance our understanding of effective reading education for diverse learners?” Therefore, objective data from surveys, reading assessments, direct observations, and subjective data from multi-level interviews were collected to complement each other and answer the research question.

1.13.2 Methodological Approach

The study used the methodological approach of the mixed methods research methodology rooted in pragmatism (Creswell & Creswell, 2018). The aim was to collect, analyse, and integrate quantitative and qualitative data in a single study to provide a more convincing answer to the research problem (Cohen et al., 2018).

1.13.3 Research Design

The study used the convergent parallel design (Creswell, 2015) to collect both quantitative and qualitative data, merge them, and discuss the findings. This choice was due to the limited time and money available for this study.

1.13.4 Data Sources

Data was collected utilising a survey questionnaire with 68 respondents, interviews with 26 participants, observation tool for 15 sites, and 15 documents of class records for reading from 15 sites. All participants and respondents were FP teachers in special schools in Gauteng for learners with mild intellectual developmental disorders. The reading sites were all reading rooms in these special schools, and all reading records were for learners with mild intellectual developmental disorders from these rooms.

1.13.5 Data Analysis

The collected data was analysed through the mixed analysis method (Onwuegbuzie & Combs, 2011), to be further discussed in Chapter 4. The method was used to analyse the quantitative and qualitative data from interviews, surveys, observations and documents. The quantitative and qualitative data collected were first analysed separately and independently suitable traditional methods and only integrated into the discussion of the results.

1.14 DELIMITATION OF THE STUDY

The study focused on teachers, principals or department heads, reading sites, and documents for FP learners with mild intellectual developmental disorders (MIDs) in special schools in Gauteng, South Africa.

1.15 RESEARCH QUALITY CRITERIA

Research quality is some form of evaluation of the research to ensure that the research is of good quality. The terms *rigour* in quantitative research and *trustworthiness* in qualitative research refer to research quality criteria (Creswell, 2014). Several approaches address the quality of research: quantitative, qualitative, and mixed methods criteria, but they all address the same issue. This study used mixed methods convergent parallel design, and quantitative and qualitative data was collected at the same time. Therefore, both quantitative and qualitative criteria were considered.

To ensure rigour in the quantitative aspects of the research, quality criteria measures were taken to ensure validity, reliability, replicability, and generalisability. For the qualitative aspects of the research, quality criteria measures were taken to ensure credibility, dependability, conformability, and transferability.

1.16 ETHICAL CONSIDERATIONS

The researcher took cognisance of the fact that all the information gathered from the teachers in special schools was based on the reading done by special needs learners with mild intellectual developmental disorders. Therefore, throughout the study, the researcher adhered to strict ethical principles, as advocated by Pillay (2014). Clearance to carry out the research was first sought from the Ethical Committee of the University of Pretoria. After clearance was obtained, permission was granted by the Gauteng Department of Education (GDE), affected districts, school principals and school governing bodies for selected special schools.

Again, all the information gathered from the schoolteachers, principals, and departmental heads was collected with their informed consent. Further, participants were informed that participation in the study was free and voluntary and made them aware that they could withdraw at any time if they felt so. Furthermore, the researcher ensured that entry to sites was procedural as per Department of Education

requirements. Information coming from the sites remained confidential and protected through password credentials and factor identification.

1.17 OUTLINE OF CHAPTERS

Chapter 1: Introduction and Background to the Study

This chapter introduces the study, provides background information, and outlines the research problem, the research questions, the objectives of the study, the purpose, and the research strategy.

Chapter 2: Literature Review

This chapter presents a comprehensive review of existing literature on teaching reading to learners with intellectual developmental disorders.

Chapter 3: Conceptual Framework

The chapter outlines the conceptual framework that guides the study, integrating various concepts, theories, and frameworks.

Chapter 4: Research Methodology and Design

This chapter describes research design, data sources, instruments, and procedures for collecting data. It also discusses data analysis and ethical considerations.

Chapter 5: Research Findings

The chapter presents the data analysis results, highlighting the study's key findings.

Chapter 6: Discussion and Recommendation

The implications of the findings are discussed, and recommendations for practice, policy, and future research are provided.

Chapter 7: Conclusion

This chapter summarises the key findings and reiterates the study's significance. A summary of the research and discussion close the research report.

1.18 CHAPTER SUMMARY

This chapter provided a synopsis of the study by highlighting the background of the research on reading in primary schools in South Africa. It also reflected on the researcher's background and interests in this research. The research problems, research objectives, purpose of study, and contribution of the study to knowledge on

reading in the FP in special schools were outlined. A pragmatic stance taken in this study was also highlighted.

The chapter provided the introduction and the background of the study. The problem statement, rationale for the study, purpose of the study, and research questions were presented. Key concepts were clarified, and the selection of paradigmatic and methodological choices were outlined. Further, a brief reference to validity, reliability, and trustworthiness and ethical considerations were made. Chapter 2 provides a detailed discussion of related literature.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides an overview of the existing literature on the learning and teaching of reading to learners with intellectual developmental disorders. The chapter is divided into six sections. First, the related literature on intellectual developmental disorders will be discussed. The second section presents the theoretical foundations of this study. The third section discusses how children learn to read, reading theories, and reading in the Foundation Phase (FP) in South Africa. This is followed by a literature review highlighting effective reading instructional practices and strategies for teaching FP reading. The fifth section dwells on the literature review relating to reading assessment in the FP. The final section focuses on reading interventions for FP reading, highlighting research-based interventional practices and strategies that can be adapted in special schools in Gauteng. The chapter concludes by highlighting several key gaps in existing literature.

Sridhar (2020) posits that literature reviews play a key role in research. They help the researcher test the constructs and theories within a particular topic and gain an in-depth understanding of the research question. In addition, literature reviews help build knowledge in the relevant field. As such, the researcher sought to identify issues, differences, and similarities in other works, integrate key research points, and make a connection with FP reading for learners with mild intellectual developmental disorders.

The aim was to review and further explore scholarly work that already informs us on the teaching and learning of reading in general, and then to narrow the review to FP reading for learners with mild intellectual developmental disorders in the South African context.

The literature came from various sources, which included electronic sources such as e-books, journals, conference articles, web-based information from the internet, and printed sources such as thesis, books, newspapers, conference papers, and research reports. The literature review followed the thematic approach and was summarised chronologically. The demands of the study topic and research questions called for this approach, as learning to read is a systematic process.

2.2 CONCEPTUALISING MILD INTELLECTUAL DEVELOPMENTAL DISORDERS

Disability in children is a multifaceted and pervasive phenomenon that transcends geographical, socio-economic, and cultural boundaries, affecting children from all racial and ethnic backgrounds. For instance, mild intellectual developmental disorders (MIDD), a condition characterised by significant cognitive and adaptive impairments, present a unique set of challenges in schools that warrant specialised attention and support.

2.2.1 Definition and Characteristics of Mild Intellectual Developmental Disorders

The American Association of Intellectual and Development Disabilities (AAIDD, 2021) defines intellectual developmental disorders as a condition marked by significant intellectual and adaptive behaviour limitations. The definition has also been adopted by the Department of Basic Education in South Africa (DBE, 2021a). According to AAIDD, intellectual functioning refers to intelligence (mental capacity), which includes learning, problem-solving, and reasoning. Intellectual functioning requires a medical diagnosis and can be measured by a test. An IQ test score of around 70-75 indicates intellectual functioning limitations (AAIDD, 2021). Adaptive functioning refers to conceptual, social and practical daily life skills, such as independence (AAIDD, 2021). Further, intellectual developmental disorders are classified as mild (most people), moderate, severe, and profound by the Diagnostic and Statistical Manual of Mental Disorders (DSMS-5).

Learners with mild intellectual developmental disorders exhibit certain cognitive and adaptive characteristics according to the American Association of Intellectual and Developmental Disability (2021). Cognitive characteristics exhibited include memory difficulties where learners struggle to remember recent events, and difficulties with learning new information or recalling familiar words and names. Again, difficulties are experienced with problem-solving, struggle to apply logic and reasoning to solve problems, slow learning, and needing more time and support to learn new skills and concepts. These learners have limited abstract thinking and have difficulty understanding complex abstract concepts. Their adaptive behaviour characteristics include communication difficulties and struggling to express thoughts and needs

effectively. Social difficulties include difficulty forming relationships, understanding social cues, and making friends. Further, they show self-care difficulties, requiring support with daily living skills, such as personal hygiene, dressing, and meal preparation, and they have limited independence, requiring support with making decisions, managing time and organisation.

2.2.2 Causes of Intellectual Developmental Disorders

Intellectual developmental disorders are attributed to various factors, including genetic factors such as Down's syndrome, infections and illnesses that damage the brain, such as meningitis, prenatal and perinatal factors such as substance abuse and environmental factors such as poor nutrition and inadequate healthcare.

The aetiology of intellectual developmental disorders remains complex. Shree and Shukla (2016) posit that determining the causes of intellectual developmental disorders is difficult since there is no single cause. In the same light, Harris (2006) acknowledges that intellectual developmental disorders have multiple causes. This is reflected by the complex interactions involving each case's generic, environmental, developmental, hereditary, and psychosocial factors. The American Psychiatric Association (APA) insists that the causes of intellectual developmental disorders for many children are not known, and what is discussed are only known causes (APA, 2013). Therefore, the FP teacher should always be on the lookout for other signs of barriers to reading caused by intellectual developmental disorders.

2.2.3 Treatment of Intellectual Developmental Disorders

The American Psychiatric Association attests that there is no cure for intellectual disorders and that they are lifelong conditions (APA, 2013). However, early and ongoing interventions (Obiakor & Bakken, 2019) are seen as ways of improving both intellectual and adaptive functioning. To provide the best care and support, Harris (2006) sees knowledge of neurogenetic syndromes, management of biomedical and behavioural features, psychological interventions and natural history of the disability as critical. The implication for this study is that there must be a holistic approach to mitigate the unknown causes of mild intellectual developmental disorders in the reading classroom. The lack of understanding regarding the aetiology of MIDD has significant implications for reading instruction in the FP, as it highlights the need for individualised and tailored approaches to support learners. Therefore, there is also a

need for the teacher to be sensitive to the needs and life challenges of each learner with a mild intellectual developmental disorder. This might not be easy for every teacher, and this study seeks to determine how special school teachers in Gauteng cope with this challenge.

Despite these challenges, as highlighted in this section, the indications that interventions and support for learners with intellectual developmental disorders go a long way in helping them to read affirm the importance of further contributing new ideas in these areas through research. For instance, Obiakor and Bakken (2019) discovered that assistive technology helps to improve literacy skills for learners with intellectual developmental disorders. Similarly, Austin and Vaughn (2019) report acquisition of basic reading skills where intervention targets early word reading and word meaning in the FP.

For these reasons, the South African government has implemented policies and programmes to support learners with intellectual development disorders. One example is the DBE's policy on inclusive education, which aims to provide equal education for these learners. Another example is special schools that provide tailored instruction and support for learners with intellectual developmental disorders. In addition, some schools offer support services such as occupational therapy, speech therapy and counselling.

2.2.4 Prevalence of Intellectual Developmental Disorders

Statistics on the prevalence of intellectual developmental disorders vary depending on source, criteria and population studies, and the estimates change when data is updated. Belton et al. (2016) assert that globally, persons with intellectual developmental disorders make up 2% of the population living with disability. The World Health Organisation (WHO) estimates that 1% of the world population suffers from intellectual developmental disorders. The National Center for Health Statistics (NCHS) in the United States of America states that the prevalence of diagnosed intellectual developmental disorders in children aged between 3 – 17 years was 1.7% in 2019, 2.20% in 2020 and 1.65% in 2021.

In South Africa, an estimated four out of every 100 people are believed to be affected by some level of intellectual disability (Western Cape Forum for Persons with Intellectual Disability, 2025). According to the South African DBE, approximately 5%

of the population has an intellectual disorder, with mild intellectual disability being the most prevalent (DBE, 2011). In the context of this study, the statistics presented above therefore reveal a significant prevalence of intellectual developmental disorders in South Africa, and elsewhere, and underscore the importance of investigating responsive and targeted instructional and intervention practices when it comes to reading in the FP. By doing so, we can ensure that learners with mild intellectual developmental disorders continue to receive instruction and the support they need to thrive in reading.

As a result, the simple view of reading is considered more beneficial to learners with mild intellectual developmental disorders in special schools and will buttress this study.

2.2.5 Historical and Contemporary Perspectives on Intellectual Developmental Disorders

Shree and Shukla (2016) highlight that the definition of intellectual disability has been revised many times throughout history and people with the disability have been called different names, from idiots, slow learners, retarded, to intellectually disabled. This is also acknowledged by Harris (2006), who states that the definition changed nine times in the United States over the past 100 years due to new knowledge gained about the causes and effects of intellectual disability. The preferred term now is Intellectual Developmental Disorders (AAIDD, 2021).

The term, intellectual disability, replaced mental retardation in 2003 in the United States as retardation was regarded as insensitive and derogatory (Shree & Shukla, 2016). The ever-changing definition, therefore, points to the fact that knowledge of intellectual disability is not static, but changes over time (Harris, 2006). This also helps to understand that intellectual disability has been a subject of discussion for centuries, with no conclusion yet. Therefore, there is a need for research in this area to always keep in line with current thinking

Theoretical models in education are tools used to define issues and develop strategies to meet certain needs resulting from the issues. As such, models of disability, when applied to educational issues, such as reading and disability, give us an insight into stakeholders' attitudes, preconceptions, and prejudices. Thereby, exposing how the stakeholders create or restrict educational opportunities, and in this case, education for FP learners in special schools who are learning to read. According to Dichaba et

al. (2024), the way people think about disability influences the way they feel and act about disability. As such, there are many models of disability (Retief & Letšosa, 2018). The four most popular models seem to be the moral, medical, social and biopsychosocial models. Each model addresses the causes, appropriate remedies and dig deeper into the meanings of intellectual developmental disorders in line with its tenets.

In the moral model, intellectual disorder relates to the person's or family's character, deeds or status (Retief & Letšosa, 2018). Disability is regarded as an act of God. There is this strong belief in some African cultures that disability is a punishment for wrongdoing. For example, among the Shona people of Zimbabwe, a learner who cannot read or performs poorly at school is labelled as "zidofo". This label is taken seriously as it marks one's status in school, resulting in some learners withdrawing from school activities including reading. Positively, disability is accepted as God's will, meaning nothing can be done as it is God's will. In the Shona culture, disabled children are given names such as "Chipo", or "Kudakwashe", etc. When applied to reading, failure to read is accepted by society, but an MIDD child struggling to read is written off, since it is an act of God. In South Africa, such children are not written off but instead placed in special schools to get specialised attention and learn at their own pace to achieve their maximum potential. The implication here is that reading teachers, parents, and other stakeholders in special schools should never give up on teaching reading to their struggling readers in the FP.

In the social model (Retief & Letšosa, 2018), disability is believed to be created by society. It is the environment (social or physical) that creates handicaps and barriers, and not the impairment itself, for example, by labelling learners by disability, such as being blind, or slow learners, and looking down upon such learners when teaching or assigning resources. In the end, learners fail to read, and when tested, they are labelled as learners with intellectual developmental disorders who cannot read. The same can be said about gender or radical stereotyping. In this regard, the main goal of intervention should be changes to society and not the disabled persons themselves. Therefore, the implications are that the FP reading teacher should guard against labelling learners with mild intellectual developmental disorders as learners who cannot be taught to read.

In the medical model, according to Zaks (2024), disability is an impairment caused by disease, disorders, some disturbances, or health conditions that need medical treatment, intervention or some other forms of correction. Professionals like psychologists and therapists are seen as the experts who can correct disability after carrying out some tests. Dominant discourses in psychology and education frequently rely on the medical model, which conceptualises disability as an anomaly or a defect that needs treatment or intervention. This perspective positions the needs of individuals with a disability as extraordinary or special.

Special needs education in special schools in South Africa aligns more closely with the medical model. Learners are tested, psychologists are experts, and learners with a diagnosed impairment, such as mild intellectual developmental disorder, are assigned an LSEN number. Once a learner has an LSEN number, the learner is placed in a special school, not a mainstream school, and might never join the mainstream again. Interventions are prescribed to correct the disorder to a normal condition. In the case of reading, psychologists are the ones who recommend suitable books for reading, instruction, and interventions.

The biopsychosocial model of disability is a framework that explains the complex biological, psychological, and social factors that contribute to disability (Babik & Gardner, 2021). The model integrates the medical and social models to consider all factors that can influence disability. The implication is that by considering the complex interplay between biological, psychological, and social factors in the FP, we can better understand how mild intellectual developmental disorders influence reading abilities in learners in special schools in South Africa. This framework, as compared to the other three, can better inform the development of targeted instruction interventions and support systems to enhance reading outcomes of these learners.

2.2.6 Understanding the Needs and Challenges of Learners with Mild Intellectual Developmental Disorders

Knowledge of intellectual developmental disorders (intellectual disability) is not only important to special school teachers of Gauteng, but to all teachers, globally, who teach learners with special educational needs. The knowledge helps to gain a clear picture of the learners taught. In this context, the special school learners with mild intellectual developmental disorders are not the same as their peers in the mainstream

schools. Therefore, there are several key reasons why it is essential to understand the needs and challenges of FP learners with mild intellectual developmental disorders in reading.

First, identifying learners with mild intellectual developmental disorders' unique needs and challenges in reading is crucial for developing personalised instruction that addresses their distinct learning requirements (Infontri & Lintangari, 2022). By recognising the specific difficulties faced by the learners, educators can tailor their instruction to meet the learners' individual needs, thereby enhancing their reading outcomes. The importance of tailoring instruction to meet the individual needs of these learners is highlighted by research, which suggests that personalised instruction can lead to improved academic outcomes (Jimoh et al., 2024). A study by Bouch and Mueda (2015) found that learners with mild intellectual disability who received personalised reading instruction showed significant proficiency compared to those who received general education instruction.

Second, failing to identify the needs and challenges of learners with mild intellectual developmental disorders in reading can result in inadequate instruction, leading to poor learning outcomes and increased frustration for both learners and educators. Conversely, accurately identifying these needs and challenges enables educators to implement targeted interventions, ultimately improving learners' reading proficiency and overall academic success. Research has consistently shown that learners with mild intellectual disability who receive inadequate reading instruction risk experiencing poor learning outcomes, including decreased reading proficiency and increased frustration (Allor et al., 2010; Jacob & Pillay, 2022; Katims, 2000).

Third, early identification of needs and challenges in reading is vital for FP learners with mild intellectual developmental disorders, as it allows timely intervention and support, which can significantly impact their long-term reading development. The sooner the educators recognise these learners' unique needs and challenges, the more effectively they can address these issues, preventing the accumulation of reading deficits and promoting more favourable outcomes. In this study, as an educational policy requirement in special schools, early identification and intervention in reading is critical for learners with mild intellectual disability (DBE, 2017; NRP, 2000).

Fourth, there is a need for a collaborative effort between educators, parents, and other support professionals to identify the needs and challenges of FP learners with mild intellectual disability in reading. This is important to ensure a comprehensive understanding and effective support system (Friend & Cook, 2017). According to Jimoh et al. (2024), collaborative efforts between parents, teachers, disability experts, and health providers increase self-esteem, confidence, interpersonal relationships, self-determination, and social cohesion. A study by Kurt et al. (2015) found that collaborative planning and instruction between general and special education teachers improved reading outcomes for learners with mild intellectual disability.

2.2.6.1 *The Learner with Mild Intellectual Developmental Disorder*

It was pointed out that learners with intellectual developmental disorders (mild, moderate, severe, profound) develop and learn more slowly than other children of their age with no disability (AAIDD, 2021). Resultantly, children with intellectual developmental disorders in school need consistent support, and they depend on their peers, parents, and teachers for this support (Dichaba et al., 2024). As such, each form of intellectual developmental disorder requires unique support needs (Western Cape Forum for Persons with Intellectual Disability, 2025). Inability to read is seen as the biggest challenge facing learners with intellectual developmental disorders in the MIDD special schools due to the underlying disorder. Research informs us that reading, especially reading comprehension, strongly correlates with intelligence quotient level (IQ) (Alnahdi, 2015).

Related to this, teaching reading to learners with intellectual developmental disorders in special schools will likely pose distinct challenges that require tailored instructional approaches. Scholars Byrd and Alexander (2020) report that teachers find working with learners with intellectual disability challenging as they require constant individual support. Considering the multiple complexities of intellectual disability aetiology discussed above, the special school learner is quite different from their peers in mainstream schools. As mentioned earlier, they depend on their peers, parents and teachers for support during the learning process (Dichaba et al., 2024). Therefore, they require individualised support, and the Individualised Educational Plan (IEP) for reading becomes appropriate (DBE, 2014b).

Regarding class work, Shree and Shukla (2016) point out that learners with intellectual developmental disorders have below-average memory capabilities, they learn at a slower pace and lack motivation compared to the mainstream school learner. As elaborated by Alkaboody (2013), the teacher plays the most important role in creating and continuing learners' motivation through their learning process. Lack of motivation is a result of frustration and anxiety created by an inability to read. Therefore, the teachers' ability to motivate these learners enables them to read. Relatedly, when it comes to reading, learners with mild intellectual developmental disorder are said to be better at decoding words than comprehending them. This affirms the assumption in this study that learners with mild intellectual disability can learn to read. Again, reading is below grade level (Shree & Shukla, 2016). This implies that, with motivation and appropriate interventions in place, learners with intellectual disability in special schools in Gauteng can learn to read.

Despite these challenges, there is a growing body of research showing the importance of reading in addition to vocational education in the lives of learners with mild intellectual developmental disorders (Di Blasi et al., 2018; Obiakor & Bakken, 2019; Shree & Shukla, 2016). It is held that acquiring reading skills helps learners to reach a sufficient level of independence to create an adequate quality of life. Another factor is that parents and advocacy groups want their children with disability to get the same education as children without disability (Obiakor & Bakken, 2019). Again, in South Africa, reading, especially in English, is important since English is the language of teaching and learning (LoTL) when these learners exit the FP (Kunze, 2015; Leask, 2020). For these reasons, the special school learners should not be excluded from all national efforts to enable children to read. Therefore, their reading should be constantly monitored, just as their peers in mainstream schools, as these learners are equally or even more important in educational considerations because of their disability.

Despite advances in teaching and inclusive education in South Africa, many learners in general (Fishbein et al., 2021) continue to experience significant difficulties in acquiring reading skills, hindering their ability to participate in educational and social activities fully. If this challenges other learners, it is even more so for the learner with mild intellectual developmental disorder. For this reason, it is worth exploring how FP teachers support learners in special schools to learn to read.

2.2.6.2 Needs and Challenges of Learners with Mild Intellectual Disorders in School

The biopsychosocial model of disability mentioned earlier (Babik & Gardner, 2021) becomes relevant here as it shows the complex relationships between factors that can influence needs and challenges faced by learners with mild intellectual developmental disorders. The model explains how those biological factors impact psychological and social factors. In turn, psychological factors can influence biological and social factors, and social factors can also affect biological and psychological factors. When applied to FP reading in this study, the model informs us of the complex factors that influence the learning and teaching of reading in special schools. Gaining insight into the complex needs and challenges is vital, as this leads to an understanding of the FP learners, leading to effective teaching and intervention on reading.

2.2.6.2.1 Challenges With Mastering Basic Reading Skills

Learners with mild intellectual developmental disorders often experience challenges with phonological processing, which can impact their ability to decode words and comprehend texts (Hallahan, 2015). Research suggests these challenges may be attributed to biological factors, such as genetic syndromes or neurodevelopment delays (Olssen et al., 2017). However, psychological factors, such as motivation and self-efficacy, also play a crucial role in shaping reading experiences and outcomes (Gunn et al., 2016). Furthermore, social factors include teachers' attitudes and peer relationships, which can significantly impact reading progress and overall educational outcomes (Kats et al., 2017).

In addition, research suggests that learners with mild intellectual disabilities have distinct reading difficulties, such as difficulties with phonemic awareness, decoding, and comprehension (Mosito et al., 2017). The most common challenges are letter recognition, word recognition, decoding, reading fluency, and comprehension. Word recognition is the instant recall of words without hesitation. A learner who can recognise words without hesitation has developed automaticity in reading (Mosito et al., 2017). Automaticity enables a reader to process words being read automatically, which is vital for comprehending what is read. In addition, comprehension is understanding the text one is reading. Reading comprehension is enhanced by the ability to decode words, good vocabulary, and reading fluency. Reading fluency is the

pace at which the reader reads. Learners who read very slowly struggle to retain the information being read (Mosito et al., 2017).

Information about reading fluency is gathered during the reading assessment. The FP teachers' ability to effectively assess learners' challenges and needs is the best practice for teaching mastery of basic reading skills in early grades. Early identification of learners' challenges is crucial.

2.2.6.2.2 Challenges in Behaviour

Behaviour plays a significant role in teaching FP reading for special school learners with intellectual developmental disorders, as teachers might find working with learners with MIDDs challenging (Byrd & Alexander, 2020). Research has shown that learners with intellectual developmental disorders often exhibit challenging behaviour such as difficulty with transitions, social interactions, or emotional regulation, which can impact their reading (Landsberg et al., 2017). Some common behavioural challenges that learners with intellectual developmental disorders may experience in the FP include difficulty with sustained attention, challenging behaviour during reading instruction, and difficulty with social interactions (Landsberg et al., 2017). For example, learners with challenging behaviour will exhibit tantrums or aggression during reading instruction. Those exhibiting difficulty with sustained attention may have difficulty maintaining focus during reading instruction, impacting their ability to develop reading skills. Furthermore, learners may exhibit difficulty with social interactions with peers or teachers during reading instruction.

2.2.6.3 Referrals to Special Schools

The special schools play a crucial role in addressing the needs and challenges of learners with mild intellectual developmental disorders. In South Africa, special schools are the referral centres for learners with special educational needs, such as the intellectual developmental disorders under discussion, and those who are not coping with mainstream schoolwork (DBE, 2014b). These schools' key function and role are to provide more intensive and specialised forms of support to learners who might require interventions to develop to their full potential (Department of Education [DoE], 2001). Referrals from mainstream schools are made so that struggling learners receive specialist support to overcome barriers to learning within the framework of an individual's ability (Department of Education [DoE], 2001). For instance, in the case of

inability to read, struggling readers are expected to get specialist support to assist them in reading. The same applies to challenging behaviours; special schools offer tailored support to needy learners. However, this is not as easy and smooth as it sounds; working with learners with intellectual developmental disorders is a job for the experts.

Learners with mild intellectual developmental disorders in special schools face unique challenges (Ndlela, 2021), particularly in reading and behaviour, among others. (Byrd & Alexander, 2020; Ehri, 2020). To address these challenges, teachers must employ evidence-based strategies and tailor instruction to meet individual needs. Giving such support demands the service of a versatile teacher (Onyishi & Sefotho, 2020) with sound knowledge of the foundations of reading, reading instruction, and children with mild intellectual developmental disorders' behaviour (Alnahdi, 2015). The next section discusses the foundations of reading, how children learn to read, and reading development.

2.3 CONCEPTUALISING READING IN THE FOUNDATIONS PHASE

The term “reading” is laden with different meanings depending on the context in which it is used. Sandhu and Blakeley (2022) define reading as “a cognitive process that involves decoding symbols to arrive at meaning”. In the same vein, Nordquist (2019) posits that reading is the process of extracting meaning from a written or printed text. As further explained by Pang et al. (2003), reading consists of two related processes: word recognition and comprehension. Word recognition perceives how written symbols correspond to one's spoken language. In addition, comprehension, the goal of reading, according to Henning (2016), is making sense of words, sentences, and connected text. The concept learning to read, relates to the first process, and this research focuses on how the FP learners with mild intellectual developmental disorders are taught to learn to read.

Theories of reading, reading policies, and reading frameworks provide a foundation for understanding the complex learning processes to read and inform effective instructional processes. The conceptual framework in Chapter 3 further amplifies this integration of theories, frameworks, and policies to show how they influence the teaching of reading in special schools. The next section discusses some of the

frameworks, policies, and foundations of reading that underpin the teaching of Foundational reading in the FP.

2.3.1 Reading Frameworks for the Foundation Phase

A reading framework is a structured approach to teaching reading that outlines the essential components, strategies, and practices necessary to support learners' reading development (DBE, 2024). It provides a clear and cohesive structure for reading instruction, helping teachers to plan, implement, and assess reading programmes effectively (DBE, 2024). Reading frameworks, such as the Simple View of Reading (SVR) (Gough & Tunmer, 1986), can provide a useful structure for understanding the reading process and identifying areas of difficulty for learners with mild intellectual developmental disorders.

A comprehensive reading framework for the FP should encompass several essential elements to support children's reading development. Research emphasises the importance of foundational skills, phonemic awareness, phonics, decoding, fluency and vocabulary (Fountas & Pinnell, 2001; NRP, 2000). A reading framework should also incorporate opportunities for learners to engage with a range of texts, including fiction, nonfiction, poetry, and drama (Krashen, 2004).

In addition, a reading framework should provide guidance on instructional strategies, such as guided reading, reading workshops, and literacy circles (Artwell, 1998; Harvey & Goudris, 2017). Assessment and evaluation should also be integrated components of the framework, enabling teachers to monitor learner progress and adjust instruction accordingly (Afflerbach, 20017).

Furthermore, a reading framework should acknowledge the diversity of learners in the FP, including language, disabilities, and gifted learners (Tomlinson, 2023). By incorporating these elements in special schools, reading frameworks can provide a comprehensive and inclusive structure for teaching reading in the FP. Several reading frameworks can be adopted for FP reading in special schools.

2.3.1.1 Reading Frameworks for the Foundation Phase

The Multi-Tiered System of Supports (MTSS), for instance, is a framework that can provide tiered instruction and support to meet the diverse needs of learners with MIDDs (Fuchs & Fuchs, 2006). Research supports using this framework to provide

tiered instruction and support for learners with intellectual developmental disorders, leading to improved reading outcomes (Fuchs & Fuchs, 2006; Gersten et al., 2020). This is further discussed in Chapter 3.

The South African DBE recommends using the national curriculum statements (NCS) for teaching reading in the FP, including special schools (DBE, 2011). The NCS emphasises a balanced approach to reading instruction, incorporating “phonics, phonemic awareness, fluency, vocabulary, and comprehension”.

In special schools, the FP reading framework is often used to support learners with reading barriers, including intellectual developmental disorders (DBE, 2017). This framework guides the adaptation of reading instruction to meet the diverse needs of learners in special schools. Research studies have shown that a balanced approach to reading instruction, as outlined in the NCS and FP Reading Framework, can be effective in supporting learners with intellectual developmental disorders in special schools (DBE, 2017; Engelbrecht et al., 2015; Nel et al., 2017).

For example, the 2024 National Reading Framework for teaching reading in African languages in South Africa is a landmark development for teaching reading in primary schools, and special schools are also included. This framework is crucial for promoting literacy and academic success among FP learners, particularly those from linguistically diverse backgrounds (DBE, 2024). The Gauteng province is a salad bowl of African languages, including other foreign African languages, whose African-speaking learners are likely to benefit from this new framework. Research has consistently shown that learners who receive instruction in their home language tend to perform better academically and have higher levels of self-esteem and motivation (Heugh, 2014; Taylor & Vinjevold, 1999). This framework recognises that learning to read is similar across languages but acknowledges the differences in language structure and writing systems (DBE, 2024).

2.3.2 Policies to Support Foundation Phase Reading in Special Schools

Reading policies also inform the teaching of reading in schools. In South Africa, the White Paper 6 (DBE, 2001) policy framework for special needs education aims to promote inclusive education and support for learners with special needs. According to this policy, the development of special schools in South Africa has been underpinned by a commitment to inclusive education, recognising all learners' diverse needs and

abilities (DBE, 2001). Inclusive education is also guided by the Constitution of the Republic of South Africa: Section 29(1), which states that everyone has the right to basic education, which includes learners with disabilities (Republic of South Africa [RSA], 1996). Special needs education in South Africa is provided through various types of schools and programmes, including full-service schools, special schools, inclusive schools, and support units (DBE, 2021b). Special schools are designed to provide appropriate support for learners with low, medium, and high levels of needs (DBE, 2021b).

Further, the South African Schools Act of 1996 and the National Strategy for Learner Attainment of 2013 provide a framework for supporting reading instruction in special schools. These policies aim to promote inclusive education, improve learner outcomes, and address the unique needs of learners with developmental disorders (Cornelissen & Smith, 2022; RSA, 1996).

These policies and legislation have the implications that special schools in Gauteng have the government's backing and are in line with inclusive education. This suggests that these policies also guide the teaching of reading in the FP.

2.3.3 Foundations of Reading

The whole word and phonetic approaches to reading (Solity, 2020), used worldwide in the teaching and learning of reading, have their theoretical roots in theories of reading; the top-down theory, the bottom-up theory, the simple view and phonetic awareness theory (Wyse & Bradbury, 2022). In turn, the top-down theory has its foundations in cognitive psychology, and the bottom-up theory is based on behaviourist psychology (Parilla et al., 2017). This background knowledge helps the reading teacher develop a deep understanding of how to plan for appropriate instruction and intervention for reading, especially for learners with mild intellectual developmental disorders.

This study aligns with the Simple View Model of reading, which is both phonics and whole-word-oriented (Gough & Tunmer, 1986). However, the study also embraces the strengths of the bottom-up and top-down reading theories, which will be further discussed in this study. It is assumed that, despite their theoretical orientation, the special school FP teacher will only consider the effectiveness of reading instructional and interventional strategies when teaching children to learn to read.

2.3.3.1 *The Top-Down View of Reading*

The top-down or cognitive view of reading was developed by cognitive psychologists of the 1960s (Parilla et al., 2017). The exponents of this school of thought include Tolman (1886 – 1959), who maintained that learning must study the totality of a situation to understand it. This is where the whole language concept of reading came from, as theorised by Goodman in 1967 (Wyse & Bradbury, 2022). The main tenets of the top-down view are that reading is not merely a matter of decoding print to sound but also making sense of what is read (Pardede, 2008). The implication is that children should learn to read in full words and not in phonics, as in the phonetic approach, so they can understand the meaning of the words. However, the challenge remains how to crack the code when children start by reading full words, an argument that takes us back to phonics. Paradoxically, research confirms that at a global scale, the whole word approach dominates the teaching of reading in the early grades (Raskin, 2021). This might suggest something works here, and this theory cannot be discarded. However, only the classroom teacher has first-hand knowledge of what works.

2.3.3.2 *The Bottom-Up View of Reading*

The bottom-up view is based on the behaviourist psychology of the 1950s and is associated with Fries. According to Ahsani and Budairi (2022, p. 14), the proponents of this theory argue that the reading process involves “an exact, detailed sequential perception and identification of letters, words, spelling patterns and large language units”. This view claims that learning to read is based upon habit formation brought about by repeated association of stimulus and response (Pardede, 2008). In other words, if the teacher acknowledges that the reading of letters is correct, the learner is likely to repeat the same behaviour, and the child will master the letters. Behaviourism takes us back to the laws of learning advocated by Watson, Thorndike and Skinner. Today, phonics is the main method of reading, and it is cited as being associated with the bottom-up view. The critics of this theory argue that it is insufficient and defective as it relies on words and structure only (Pardede, 2008). Despite this criticism, learning to read still depends on phonological awareness and phonics, making this theory relevant to the study.

2.3.3.3 *The Simple View of Reading*

The Simple View of Reading (SVR) model is associated with Gough and Tunmer (1986). It is a theory developed to explain how a learner's understanding of words depends on how the learner reads the words and understands their meaning

According to its formula, Reading = Decoding x comprehension ($R=D \times C$) (Wyse & Bradbury, 2022). In other words, learners learn to read first by decoding before they can read to learn, as pointed out earlier. In support of this view, Austin and Vaughn (2019) point out that the model is of great importance to early reading and relevant for learners struggling to read, as it emphasises decoding in reading. The emphasis on decoding and word reading makes the model relevant to this research. The SVR reconciles the reading wars as Yaden et al. (2021) pointed out that decoding is a bottom-up approach, and comprehension is a top-down approach.

However, this theory seems to contain no new knowledge. It only suggests combining the bottom-up and top-down approaches to teaching reading, which is exactly what happens in the classroom.

2.3.3.4 *The Phonological Awareness Theory*

This theory emphasises the importance of phonological awareness in reading development (Stanovich, 1993) and can be incorporated in the FP to inform the teaching of reading in the FP. This theory posits that phonological awareness is a critical precursor to decoding and comprehension (Bialystok et al., 2003, as cited in O'Connor & Vadasy, 2011, p. 38), and that is what FP reading is all about (Sargiani et al., 2021). This makes the theory relevant to FP reading in special schools as decoding is crucial to the learning of reading in this phase (Yaden et al., 2021).

Although the reading theories in this study section have been projected in different perspectives, they should be seen as converging to anchor the study. As Garvelink (2018) pointed out, different philosophies and perspectives work together to provide a complete picture. It is therefore assumed that FP teachers in special schools in Gauteng base their teaching of reading on knowledge and understanding of these theories and will tap into features that work for learners with mild intellectual developmental disorders. Again, theories of reading do not work in isolation, but also link with other theories, such as theories of learning and motivation.

2.3.4 Reading Development in the Foundation Phase

Children in the FP do not just become readers (Ehri, 2020), but develop reading skills in stages (Henning, 2016) to become readers, starting with the most basic skills. In other words, they must learn to read first. The FP is about learning to read. It was pointed out earlier that the purpose of primary school education in the FP is for every child to learn to read (Wyse & Bradbury, 2022). It was also pointed out that there is a high correlation between reading and success in school and life (Gibb, 2022; Stent, 2023; Torgesen, 1999).

2.3.4.1 *Learning to Read and Reading to Learn*

Languages throughout the world (both alphabetic and ideographic) have their own written forms, and this is where reading comes in (Raskin, 2021). Unlike the written form, spoken language needs no schools or teachers. However, the written form of language demands reading instruction for alphabetic and ideographic languages (Brainbridge, 2021).

Learning to read and reading to learn concern the written form, which is what all schools are about. In agreement with Pollatsek and Treiman (2016) and Hanning (2016), learning to read is the acquisition of the foundational reading skills and starts with the phonological process. Reading to learn occurs when readers can read fluently and with comprehension. The large body of reading research posits that reading in alphabetic languages requires knowledge of letter-sound association (the alphabetic principle), whilst ideographic languages use signs to represent words.

As such, children must learn to read words first before they can read books that are full of words for different purposes. Since reading is a cognitive activity, this involves the eyes, the ears, the working memory, and the phonological loop in the brain.

2.3.4.2 *Foundation Phase Reading Curriculum*

Foundation Phase (FP) teachers need to understand what FP reading entails and, in the process, know how this knowledge is assessed and if instruction is to be relevant. Reading at this stage targets word reading. There is a congruence in the literature on what children learning to read should be taught. The five pillars of reading, as established by The National Reading Panel of the USA, are “phonological awareness, phonics, reading fluency, vocabulary, and comprehension” (NRP, 2000, p. 1).

Research in reading confirms these five pillars as applying to any alphabetic language, and learning to read, following that sequence (Eri, 2014). The South African DBE also recommends teaching the five reading pillars in the FP (DBE, 2024). Although it is known what must be taught, there is a divergence of views on how this should be done in schools.

2.3.4.3 *How Children Start to Learn to Read*

Theoretically, learning to read is a complex process involving integrating multiple cognitive skills, including “phonological awareness, phonics, fluency, comprehension, and vocabulary” (NRP, 2000, p. 1). For learners with mild intellectual developmental disability, these skills may be impaired due to cognitive processing deficits, such as difficulties with working memory, attention, and processing speed (Allowy & Gathercole, 2006). Theories of reading and reading frameworks provide the FP teacher with the background to understand the complex process of learning to read for the first time. The reading teacher should know and understand how children start to learn to read, where they might fail to read, and why they may fail to read. Pollatsek and Treiman (2015) posit that the English system consists of graphemes symbolising phonemes within words, and reading starts with these graphemes and phonemes. As pointed out, graphemes are single or double letters; for example, “S”, “OU”, and “TH,” which are the smallest sounds of the word “South”, consisting of three phonemes. In other words, phonemes are the sounds of the words we make with the mouth as we speak in any language, and graphemes are the letters that represent these sounds.

Knowing phonemes, graphemes, and decoding skills enables beginners to read words (Sargiani et al., 2021). Ehri (2020) also points out that grapheme-phoneme mapping and phonemic segmentation are the key skills that start the reading process and are followed by knowledge of syllables and morphemes. During the process, as pointed out by O'Connor and Vadasy (2011), the critical starting point is for teachers to ensure individual phonemes are pronounced accurately within and out of context. In the same light, Pollatsek and Treiman (2015) add that converting graphemes into phonemes to hold the sounds in memory and blend them in the correct order are the skills taught to beginners, but this needs instruction and practice. Once the learners gain phonological awareness, Bialystok et al. (2003, claim that phonological awareness in one language can also be shared with another language of similar phonological

structure. This is another interesting area for research, especially in South Africa, where children start reading in their mother tongue and then switch on to English at the end of Grade 3.

Phonological awareness is an umbrella process involving several skills: phonemic awareness, graphemes, segmentation, blending, and decoding (Sargiani et al., 2021). The next step that follows the phonological awareness stage is the alphabetic principle, followed by phonics. The alphabetical principle is described by Raskin (2021) as the understanding that sounds in words can be represented by letters of the alphabet. Where phoneme instruction and alphabetic letters are taught together, instruction becomes more effective compared to teaching phonemes separately (O'Connor & Vadasy, 2011). In addition, the researchers also emphasise that teaching the alphabetic principles is not the same as teaching phonics.

Gibb (2023) pointed out that phonological awareness provides the basis for phonics, which is the tool used for reading words. Phonics can be taught as explicitly synthetic or analytical phonics, and there are many ways of teaching them. In analytic phonics, readers look at the whole word and use background knowledge or pictures to read. In synthetic phonics, sight vocabulary is not important. Additionally, phonics is also based on the alphabetical principle. More so, Abraham and Gram (2009) posit that explicit phonics work for all learners and are more helpful for struggling readers if they are taught in the classroom by teachers with appropriate knowledge. The challenge in special schools might be the capacity of learners with mild intellectual disability to store phonics in memory and the teacher's ability to teach phonics. However, once the learners can read the words, fluency comes with practice, and the same is true with vocabulary, leading to comprehension, the ultimate goal of reading.

2.3.4.4 *Developmental Stages in Reading*

Reading is a process that develops in stages (Henning, 2016), as highlighted in the previous sections. There are four phases of development when learning to read: the "pre-alphabetic", "partial alphabetic", "full alphabetic", and "consolidated alphabetic" phases (Ehri, 2020, p. 6).

As outlined by Ehri, the pre-alphabetic phase is marked by limited or no letter knowledge, lack of phoneme knowledge, no grapheme-phoneme mapping, and no word decoding ability; words are predicted from pictures by the reader. The next phase

is a partial alphabetic phase where the beginning reader can identify most letter names and their grapheme-phoneme correspondence. Phoneme segmentation is partial, and words are read by remembering partial graphemes and phonemes. There is no word decoding, and words with similar spellings are often confused. This stage is followed by the full alphabetic phase, characterised by full phoneme segmentation, complete grapheme-phonemic mapping, reading accuracy, complete phonetic spelling, and good memory for spelling. The last phase is the consolidated alphabetic phase, when the child is proficient in spelling and decoding (Ehri, 2020). In this phase, vocabulary and knowledge of spoken language grow, and the child can marry grapho-syllabic and morphemic spelling units.

Henning (2016) sees knowledge of these stages as crucial, as it helps to track where struggling readers fail, and once this is known, they can get an appropriate intervention. For example, Ehri (2020) explicates that those children with reading difficulties exhibit the characteristics of the partial alphabetic phase. Although they know the alphabetic system, they cannot decode words and store the complete forms of written words in memory. To move from this phase to the full alphabetic phase, Ehri (2020) suggests that struggling readers need interventions in effective sight words, learning grapheme-phoneme knowledge, segmentation of words, phonics, and decoding. The teacher must monitor each learner's reading progress, and this is where assessment of the reading learning and teaching process comes in.

2.4 TEACHING READING IN THE FOUNDATION PHASE

Effective reading instruction is the cornerstone of academic success for all learners (Gumede & Boakye, 2020; Raimjanovna, 2023; Sparks, 2021), and it is particularly crucial for learners with mild intellectual developmental disorders in special schools (Shree & Shukla, 2023). During the FP, learners with mild intellectual developmental disorders also develop the fundamental skills to shape their future academic trajectory (Sparks, 2021). Reading instruction tailored to their unique needs can profoundly affect their ability to access the curriculum, develop independence, and build confidence (Gibb, 2022). However, teaching children to read is controversial in education (Yaden, 2021).

2.4.1 The Controversy in the Teaching of Reading

Teaching children to learn to read is a controversial topic in education spanning centuries, with no conclusive agreement (Yaden et al., 2021). The controversy pits professors of reading, scholars, and teachers against each other in a war of theoretical perspectives (Wyse & Bradbury, 2022). The disagreement is between teaching using the whole word approach and the phonetic approach. Yaden et al. (2021) explains that the so-called reading wars are disagreements about how children should be taught to learn to read. As pointed out earlier, the reading wars are theory-based, resulting in advocacy for phonics or whole language reading, which are bottom-up or top-down reading theories. The whole word approach or sight words approach focuses on the meaning of words rather than their sounds. Children are taught to memorise words using different strategies related to decoding words. The advocates for the whole word approach claim that teaching reading in phonics breaks up words into letters and syllables with no meaning (Raskin, 2021). Again, they claim that 75% of words used in early reading materials are sight words, which cannot be easily sounded out or illustrated. Raskin (2021) posits that, despite the criticism of this approach as inappropriate, it still dominates the teaching of reading in schools.

Research shows that most English-speaking countries, except the UK, use the whole word approach to teach early reading in schools (Raskin, 2021). It is argued that children make more progress in reading using this approach than the phonetic approach. However, the rapid progress stalls because children lack the basic reading skills of associating letters and sound correctly. There are also problems with spelling. Again, the belief that words are stored in memory has been disproved by modern scientific research.

The phonemic approach is an alternative strategy. Though this approach is not yet dominant in the teaching of FP reading, it is scientifically regarded by the science of reading (Snow et al., 1998) as the right approach to teach children to learn to read in schools (NRP, 2008). This approach focuses on the sounds in words represented by letters or groups of letters in the alphabet. Advocates for this approach claim that English is an alphabetic-based language and not an ideographic language such as Chinese or Japanese (Raskin, 2021). Modern scientific research also supports the phonetic approach as the most effective method of teaching children to learn to read

(Buckingham, 2020). Therefore, the phonetic approach should be considered the most suitable approach for FP reading. Since 2011, the UK has adopted the phonetic approach in schools as the reading policy for the FP (Gibb, 2022). In support, Solity (2020) acknowledges that there have been three phases of paradigm shifts in teaching reading in the United Kingdom since 1967. The paradigm pendulum sometimes swings in favour of phonics or whole language but is now firmly grounded in systematic synthetic phonics (SSP) (Solity, 2020). Similarly, the USA also settled for the phonetic approach when it recently passed new laws on how reading should be taught in schools (Sparks, 2021). In South Africa, the Early Grade Reading Assessment (EGRA) programme, which has been put on hold (GDE, 2018), is phonetically based, but the NRP is highly optimistic that it can improve reading in the FP.

The reading wars, paradigm shifts, and different approaches highlighted here imply that teaching children to read in schools is not easy. The bold stance taken by the UK and USA to mandate primary schools to adopt the phonetic approach in the FP might be just right for the current understanding. However, any new knowledge on the best ways to teach reading will likely eventually change how reading is taught in those schools. Moreover, for nations sitting on the fence like Africa where English is taught as a second language, it could be that there is no clarity as to what works and what to do. Some children are mastering the foundational reading skills through learning to read in well in their mother tongues as they are also alphabetic languages. However, one might ask, “Can mere laws and paradigm shifts improve reading in the classroom?” The answer is yes, and no. Real progress comes with the teacher through the effectiveness of instructional and interventional practices employed in the classroom. However, the controversies equip the teacher with a deeper understanding of reading theories and essential knowledge to formulate appropriate instructions and interventions in the classroom. This study sought this understanding from FP teachers from special schools, and these findings are discussed in Chapter 5.

2.4.2 Theories Informing the Teaching of Foundation Phase Reading

This section will discuss some theories that inform the teaching and learning of FP reading will be discussed. Many theories, such as behaviourism, cognitive, constructivism, humanism, and adult learning, have been developed in education to try to explain how human beings acquire new knowledge (Changwong et al., 2018).

Learning theories developed by Piaget, Bruner, Vygotsky, Bandura, Tolman, and Gestalt have greatly influenced learning and teaching strategies for a long time in schools. According to Changwong et al. (2018), “Learning theories describe the conditions and processes through which learning occurs and also provide the teacher with models to develop instructions that lead to better learning”. Inability to read in South Africa is often attributed to the teachers’ lack of this knowledge (Phala & Hugo, 2022), to apply during instruction and to examine factors which motivate or hinder learning.

2.4.2.1 Behaviourism Learning Theory

The learning theory is based on behaviourist psychology and links with the top-down approach to learning in general and reading in particular. Factors influencing learning are the learner, environment, environmental conditions, stimulus, extrinsic motivation, and teacher-centred learning (Changwong et al., 2018). Learners learn through repeated practise, which is rewarded by external motivation. In early grades, it is common to hear such repetition in reading, and sweets are used to motivate learners to read words correctly. Rao (2018) criticises external motivation in that it creates temporary compliance, rather than a fundamental shift in performance. The implication is that, in reading, FP learners, as children, might seek to please the teacher to be rewarded rather than focus on learning to read to acquire the foundational skills. According to Changwong et al. (2018), best practices include instructional cues, practice, reinforcement, repeated experiences, and recalling facts. In addition, technology used for learning includes teaching machines, films, and programmed instruction.

2.4.2.2 Cognitive Learning Theory

The cognitive theory is yet another theory of learning which can influence instructional and interventional practices employed by the FP teacher. The key principles of cognitive learning include active processing (Ausubel et al., 1968), schemata (Rumelhart, 1980), and working memory (Baddeley et al., 2021). This theory explains how the human mind receives, organises, stores and retrieves information. Main (2022) posits that learning occurs through mental activity involving coding and structuring. Factors influencing learning include cognitive structuring, learner thoughts and beliefs, environmental conditions, practise, instruction and demonstration

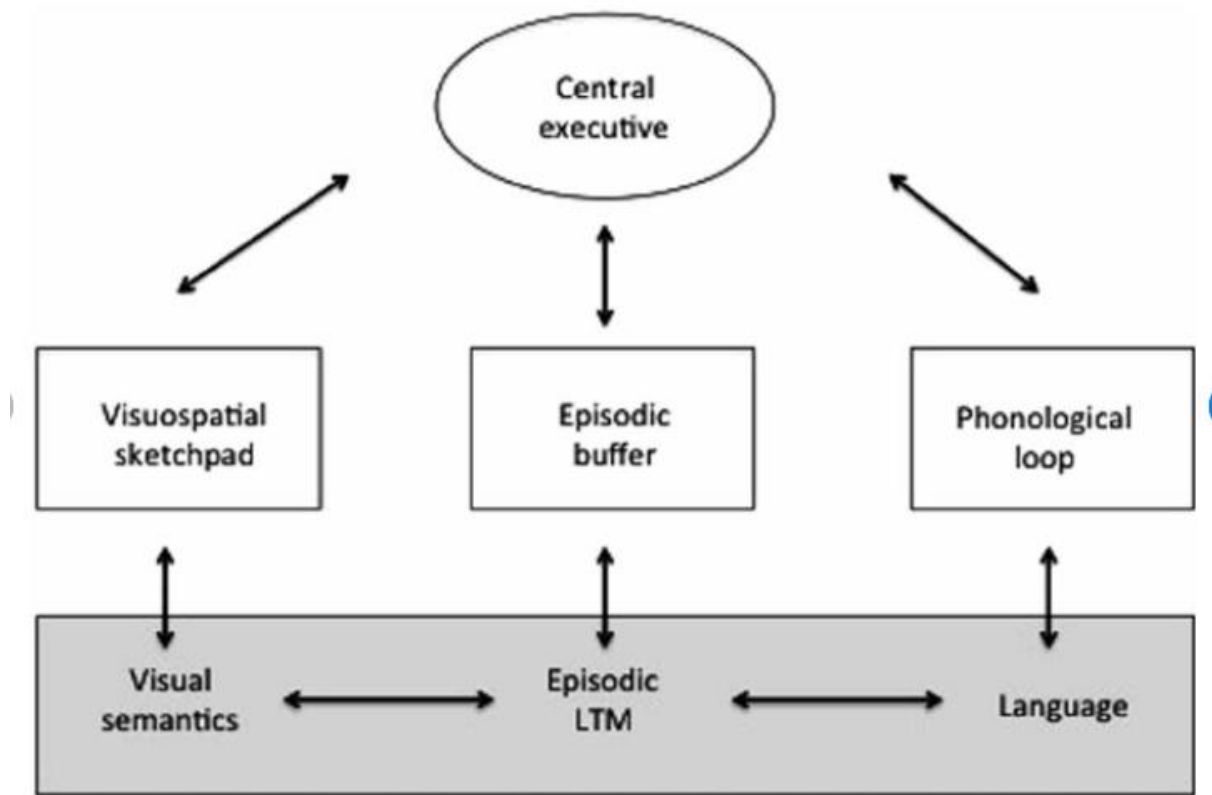
(Changwong et al., 2018). Technology used for learning involves concept mapping, testing, and the acquisition of skills. In reading, flashcards are also seen as a way of recalling knowledge from memory. There are many implications for teaching and learning, which the reading teacher can tap into to gain more knowledge for instruction. For example, the theory informs the reading teacher to first gain attention by engaging the learner (Ausubel et al., 1968), informing the learner of the objectives, stimulating, guiding, eliciting, providing feedback, assessing, and enhancing performance (Baddeley et al., 2021). In addition, the cognitive load theory comes from the cognitive theory and further explains how the human mind learns. Again, this is very relevant to FP reading and can help the teacher formulate instructions and interventions which can help a learner with mild intellectual developmental disorders to learn to read in a better way.

2.4.2.3 *The Working Memory and Cognitive Load Theory*

The teacher's knowledge of the working memory (WM) and the cognitive load theory is another way to inform the nature of instructional and interventional practices in the reading classroom. According to Rogers (2022), working memory has consistently been related to reading ability, though the precise nature of the relationship remains unclear. Philips (2024) defines working memory as the brain's system for temporarily storing and managing information. Shen and Tshapali (2022) posit that working memory has four components, as shown by the multi-component model below. As illustrated by the model, WM comprises "the central executive, the visuospatial sketchpad, the phonological loop, and the episodic buffer" (Baddeley et al., 2021). The central executive and the episode buffer are further classified as domain-specific components, general components, the visuospatial sketchpad and the phonological loop.

Figure 2.1

The Multi-Component WM Model



Source: Baddeley et al. (2021)

The central executive serves as the general intentional control system and supervises and controls the whole working memory system (Tshapali & Shen, 2022). The visuospatial sketchpad is only a storage system that retains visual features such as colours and shapes in the brain. The phonological loop is another storage-only system that coordinates linguistic information from speech, music, and sign language.

The phonological loop is our inner ear and voice because it temporarily stores phonological code (Gillis-Fufutaka, 2021). The phonological loop contributes to basic reading ability as the phonological store when decoding words (Carvalho et al., 2014).

According to Shen and Tshapali (2022), working memory serves as a crucial cognitive component of reading. Hassser (2024) tells us that working memory profoundly impacts reading since sounding out words requires that a child holds each letter sound in working memory before putting them together to form a word. Further, Bainbridge (2019) attests that the visuospatial and verbal WM play a vital role in decoding words;

visual letters are converted to sounds and sequentially enter the WM system and are stored until all letters are combined as a word. Again, a study by Rogers (2022) concluded that there is a stronger relationship between working memory and decoding in young children. As David (2019) pointed out, the auditory working memory helps children to remember the phonemes and their associations to graphemes, and the visual working memory helps children remember what those sounds look like.

Low working memory capacity is a shared characteristic of children with learning difficulties (Menon, 2016). Poor working memory limits the ability of learners with reading difficulties to retain information when learning to read and is the reason why they cannot pay full attention or resist disturbances from unnecessary stimuli.

It is also paramount for the reading teacher to know and understand that WM can be increased. Research informs us that WM capacity is flexible and can be improved by intensive training (Shipsteet al., 2012). Increasing the WM capacity of struggling readers might make it easier for them to take up tasks in reading that demand higher WM capacity. One of the best ways to free memory working space for struggling readers is to adopt good decoding strategies that create automaticity in learning to read (Philips, 2024). It is important to check the cognitive load as learners with mild intellectual developmental disorder learn to read.

Relatedly, the cognitive load (Fuhrman et al., 2017) is the amount of working memory used, like the random-access memory (RAM) of computers. The theory helps the reading teacher to understand the human cognitive architecture: how the human mind learns, thinks, and solves problems. Without this understanding, Changwong et al. (2018) says instruction is blind. There are three types of cognitive load: intrinsic, extraneous, and germane load (Fuhrman et al., 2017). Intrinsic load is the limiting factor in processing information, extraneous load is the degree of difficulty of information presented, and germane load is the effort needed to use memory. Cognitive overload is when the three loads overwhelm the learner (Fuhrman et al., 2017). The solution is to design effective instructional practices. This theory implies that learners with mild intellectual developmental disorders should not be overloaded. Sometimes teachers become slaves of the annual teaching plan and drive the teaching plan at the plan's pace rather than the learner's pace. Thus, the reading

teacher should always be on guard for signs of overload, especially in FP learners with an underlying disability.

2.4.2.4 Theories of Motivation in the Foundation Phase

Children, especially the little ones learning to read for the first time, need to be motivated; otherwise, they will see no reason for working with letters rather than playing with toys. According to Gupta (2021), motivation is the ability to influence a change in a person's behaviour. This motivation can come from within (intrinsic) or from outside (extrinsic) in the form of rewards. Relatedly, research has shown that intrinsic motivation is more effective than extrinsic motivation and has a better lasting effect (Gupta, 2021). The four factors influencing motivation are: physiological, emotional, cognitive, and social (Klingel, 2021). This is to say, the special needs teacher should seek ways of motivating the learners from different angles, depending on the needs of each learner. Learning to read is a complex process and becomes a daunting task for the FP learners with intellectual developmental disorders, if they are not motivated to learn to read. Literature also informs us that there are many competing theories of motivation, and that they can be grouped into three types: content or needs theories such as Maslow's Hierarchy of Needs, process theories, and reinforcement theory.

It seems the hierarchy theory speaks more about the FP of reading than any other theory. For example, the physiological needs cited in this theory are crucial in the life of a learner at school. Failure to satisfy these needs, especially with learners with mild intellectual developmental disorders, automatically withdraws the FP learners from learning to read. Roosevelt (1999) once said, "Nobody cares how much you know, until they know how much you care". Teaching can be a misguided effort with little ones if their basic needs are unmet. In South Africa, this is where the SIAS policy comes into effect. As stipulated by the policy, the teacher must "screen, identify, assess, and support" learners in need (SIAS, 2015).

Further, as suggested by the motivation theory, a sense of safety and love will enhance learning (Recce & Recce, 2015), leading to the mastery of foundational reading skills by FP learners in special schools. However, all this comes with the teacher, and how teachers motivate struggling readers is one of the issues investigated in this research. The growth mindset theory discussed in the section below is well connected to theories

of motivation and learning discussed earlier. Changwong et al. (2018) pointed out that these theories are not mutually exclusive. As can be seen, elements across the theories can be combined to resonate with teaching styles that can reflect teachers' best understanding of FP learners with mild intellectual developmental disorders.

2.4.2.5 *The Growth Mindset Theory*

The growth mindset theory is another theoretical perspective that shows how the teacher can coach learners with mild intellectual developmental disorders to understand that they can build on their potential and not see disability as inability to read. The theory is about how attitude and self-concept affect willingness to learn (Saunders & Wong, 2020). According to Dweck (2017), people can approach learning with a fixed mindset or a growth mindset. People with a fixed mindset perceive ability as innate and that people are either born with talent and ability or not. The perception is that for those not born with the talent or ability, trying will be a waste of time. The implication for this study is that struggling readers with this mindset might see themselves as failures and can try to avoid reading. However, Dweck (2017) is quick to point out that mindsets are not immutable; a learner with a fixed mindset can be coached to have a growth mindset. Therefore, in such cases, the FP teacher has some work to do to motivate low achievers in reading and avert the self-fulfilling prophecy.

On the other hand, people with a growth mindset perceive ability as an outcome of hard work. Struggling readers with this mindset might not give up on reading, and with motivation, can even do more. The young ones might not understand this, but the teacher, through expanded opportunities, can help the good readers achieve this.

2.5 TEACHING FOUNDATION PHASE READING

The terms "teaching reading" and "reading instruction" are often used interchangeably, but there is a subtle difference. Teaching reading as used in this study means the broader process of helping learners develop basic skills through a more holistic approach (Mantel et al., 2021) that includes, creating positive reading environment (Dickinson & Tabors, 2010), developing reading habits, motivation, and addressing reading attitudes (Whitbread et al., 2021). On the other hand, reading instruction (NRP, 2000) is the actual teacher contact with learners in the classroom, teaching reading skills that include phonics instruction, decoding, fluency, vocabulary, and

comprehension. It is the specific, systematic, and explicit teaching of these reading skills and strategies (Buckingham, 2020; Moats, 2020; Snow et al., 1998).

As such, learning to read in any language from the onset is not natural, and it needs instruction from the teacher. This is why reading has to be taught in schools (Brainbridge, 2021). Calderwood (2023) pointed out that phonemic awareness, phonics, reading fluency, vocabulary, and comprehension are the five reading skills on which the FP teacher must focus. Relatedly, assessment also must focus on these learning standards to identify gaps in reading.

2.5.1 Reading Instruction for the Foundation Phase

According to Khosa (2022) the South African curriculum specifies six different methods for FP instruction: phonics, shared reading, group guided reading, paired or independent reading, and reading aloud (DBE, 2011).

The International Reading Association (1998) regards learning to read as a complex, multifaceted process that requires numerous instructional approaches. In support, Compton-Lilly et al. (2020) see a one-size-fits-all reading instruction as reductive and not equitably serving all learners in any one reading lesson (Mantel et al., 2021). This calls for the teacher's experience, knowledge of different teaching approaches, and knowledge and understanding of learners' needs. How teachers teach early reading in the FP has implications for learner performance (Khosa, 2022). Learner behaviour also influences the teaching of reading (Dwarika, 2019), as learners with difficult behaviour might also be difficult to teach. To address challenging behaviour, FP teachers in special schools, positive reinforcement is recommended by scholars (Landsberg et al., 2017). As Dwarika (2019) suggested, positive reinforcement, such as praise or rewards, encourages learners to exhibit positive behaviour during instruction.

2.5.1.1 Reading Instruction for Learners with Mild Intellectual Disorders

Learners with mild intellectual developmental disorders often struggle with reading due to cognitive, linguistic, and perceptual difficulties (Kilpatrick, 2015). If left unaddressed, these challenges can lead to a cycle of reading difficulty, frustration, and disengagement. Effective reading instruction can break this cycle by providing learners

with the skills, strategies, and support they need to become confident, competent readers.

It was cited earlier that learners with intellectual developmental disorders struggle with phonological awareness, which impacts their ability to decode words; they lack motivation and face other social factors which act as barriers to reading. In this regard, Jimoh et al. (2024) see assessment and diagnosis as pivotal in understanding and supporting these learners. They further suggest adopting instructional methods that delve into teacher attitudes, evidence-based practices, and the use of varied instructional strategies to meet diverse reading needs.

A multisensory approach has been identified as an effective practice for teaching phonemic awareness (Jacob & Pillay, 2022). Other studies also confirm that multimedia applications such as Multimedia and Education for Special Education (MESE) have the potential to improve reading ability and memorisation for children with intellectual developmental disorders (Munir et al., 2018). Relatedly, phoneme isolation instruction is recommended for teaching struggling learners to isolate individual phonemes within words, using techniques such as clapping hands or tapping out the sounds.

Phonics-based instruction is another instructional strategy to teach learners with mild intellectual developmental disorder to read. According to Jacob and Pillay (2022), using the strategy with music, multimedia applications, and pictorial illustrations enhances mastery of basic reading skills for FP learners with intellectual developmental disorders. Research recommends systematic and explicit phonics instruction, using a step-by-step approach to teach sound-letter correspondence (Kilpatrick, 2015). The United Kingdom has adopted phonics-based instruction in teaching reading in the FP in its current paradigm shift in the teaching of FP reading (Solity, 2020). This makes the argument for adapting phonics-oriented teaching of reading in the FP in special schools very strong. Using visual support such as pictures, symbols, or flashcards to reinforce systematic and explicit phonics instruction, visual supports are vital for teaching learners with intellectual developmental disorder.

Fluency is another critical aspect of reading instruction for learners with intellectual developmental disorders. Research has shown that repeated reading and modelled reading can improve fluency in learners with intellectual disorders (Rasinski, 2017).

Modelled reading involves the FP teachers reading aloud to learners and highlighting fluency and expression. Repeated reading involves the reading teacher engaging the learners in reading activities, where the learners practise reading the text multiple times to build fluency. Fluency in reading is a subskill that is important when learning to read. Fluency is measured to determine the reading levels. It happens when the learners' reading is timed per minute (Calderwood, 2023). The more practise the learner gets the more fluent the learner becomes till the learner reads at the same rate which becomes the reading grade level. A learner who reads slowly and word-for-word reads fewer words per minute, indicating that the learner is decoding. All this information is important to the FP teacher as it will guide planning for further instruction and intervention. Well-organised fluency testing where the learner works with the teacher leads to self-regulated learning as the learner would be intrinsically motivated to read more effectively (Dignath & Veenman, 2021).

Vocabulary instruction is also key to reading development for learners with mild intellectual developmental disorder. Research indicates that explicit and systematic vocabulary instruction can improve reading comprehension in learners with mild intellectual developmental disorder (Pilongo et al., 2023). Again, research has demonstrated that teaching high-frequency words and providing opportunities for repeated practice and review improves vocabulary, reading fluency, and accuracy (Green et al., 2024). Furthermore, explicit vocabulary instruction will entail determining which words learners need to know, delivering the words for the first time, expanding word knowledge, and building fluency with existing words (Williams, 2023).

According to Williams (2023), teaching high-frequency words can incorporate visual aids, language support, and cultural relevance. In other words, the FP teacher should use images and real-life objects as aids. Again, the teacher needs to provide translations and use bilingual resources. Additionally, the reading teacher needs to choose relevant and meaningful words to the learners' everyday experiences.

Comprehension instruction is also recommended for reading learners with mild intellectual developmental disorder. Research further shows that effective comprehension instruction is another way of improving reading. Effective comprehension instruction strategies for these learners, as supported by research, include visual support, multi-sensory instruction, explicit comprehension instruction,

assistive technology, and collaborative instruction for FP learners. Again, explicit and systematic comprehension instruction impacts comprehension for these learners (Duke & Pearson, 2002; Kilpatrick, 2015).

Computer technology has been reported by Mosito et al. (2017) as one of the tools recognised for its potential to enrich the learning experiences of learners with intellectual disability. For example, electronic books (E-books) replace printed paper-based storybooks with books in digital format (Mosito et al., 2017). E-books have multi-media effects that can support learners' understanding of the text, such as sound, animation, and interactive activities (Mosito et al., 2017). E-books have advantages. First, they can repeat activities (Pitcon, 2014). E-books boost self-esteem, promote phonological awareness, show learners how to read fluently, and build vocabulary. Mosito et al. (2017) posits that there are lots of computer software on the market that can meet the specific needs of different groups of learners with intellectual disabilities. Therefore, the role of computer technology in teaching reading to learners with intellectual developmental disorder cannot be underestimated, as demonstrated below.

Text-to-speech software has often been reported as effective assistive technology for learners with mild intellectual developmental disorders. For example, a study found out that ClaroRead, a text-to-speech software, improved reading accuracy and comprehension for these learners (Sensory Solutions, n.d.). Another research study, Natural Reader, showed that the text-to-speech software yielded similar results as it enhanced reading fluency and vocabulary for these learners (Natural Reader, 2019). Research has also established that learners with intellectual developmental disorders benefit from e-readers and digital texts. A study demonstrated that using Amazon Kindle, an e-reader, increased reading motivation and engagement in learners with mild intellectual developmental disorders. Similar benefits were reported with EPUB format, a digital text format that enables learners with intellectual developmental disorders to access adaptable reading materials (EPUB, 2020).

Relatedly, reading apps were identified as helpful in the FP with these learners. Texthelp (2019) found that the read and write apps enhanced reading fluency and accuracy (Beeline Reader, 2020). Therefore, computer technology can potentially

improve reading in special schools, and this study investigates how FP teachers embrace this technology.

Furthermore, Speech-Generating Devices help teach reading to learners with intellectual disabilities. The devices are said to generate speech, such as picture communication symbols or text-to-speech devices. In one study, Argumentative and Alternative Communication (AAC) devices, which generate speech, improved reading skills and communication skills in learners with intellectual disability. These results provide hope for using technology in teaching FP reading with learners with mild intellectual developmental disorders. Literature in this section has highlighted that employing computer technology in reading with learners with a mild intellectual developmental disorder has the potential to improve communication skills; the technology enhances reading comprehension, increases motivation and learner engagement, improves vocabulary, promotes phonological awareness, and E-books boost self-esteem due to their additional text features, as was also concluded by Mosito et al. (2017).

Therefore, by providing systemic, explicit and multisensory reading instruction incorporating assistive technology, FP teachers in special schools can adopt these practices to help learners with a mild intellectual developmental disorder develop basic reading skills. This, in turn, can profoundly impact their academic, social and emotional development, enabling them to reach their full potential. As such, FP teachers, policymakers, and stakeholders must prioritise reading instruction for learners with mild intellectual developmental disorders in special schools in Gauteng. As shown by previous research, this can be achieved through providing necessary support, resources, and expertise for reading instruction in the FP to ensure that the learners receive high-quality, evidence-based reading instruction that meets their unique needs and promotes optimal outcomes.

2.6 ASSESSMENT OF READING IN THE FOUNDATION PHASE

Once children receive reading instruction and start learning to read, the amount of knowledge they acquire needs to be measured to determine their learning progress. Effective assessments allow educators to make important claims about learners' knowledge and skills (Morris et al., 2022). Assessment informs instruction, interventions, and goals set by the teacher. In education, measurement refers to the

use of educational assessments and the analysis of data from scores obtained from the assessments to determine progress and ability of learners in a particular curriculum (Bhat & Lone, 2019). Tests, measurements, and evaluations are interrelated and interdependent and inform assessment (Mani, 2016). The large body of literature on education measurement shows that ability, achievement, interest, and personality tests are measurement examples in education, and have evolved over centuries.

Studies also show measurement in reading informs evaluation, instruction (C. Tomlinson, 2023), intervention (Khosa, 2022), policy, curriculum planning and reading (National Council of Teachers of English [NCTE], 2014), and reading material (DBE, 2014). The test is the tool used to gather data, measurement is the score (Pearson, 2018), and evaluation is the data interpretation process. For example, the syllable identification test, the letter sound test, the word identification test, the non-word identification test, the reading fluency test, and the oral comprehension test are tools used to assess the acquisition of foundational reading skills. The reading scores obtained are the measurement for reading (Clay, 2013). Evaluation is the judgment made about the scores, whether the learners are reading at grade level or below standard. With evaluation, learners' achievement in acquiring foundational reading skills can be determined.

Another national and international example is South Africa's participation in Progress in International Reading Literacy Study (PIRLS) to check the progress in primary school reading. According to the Minister of Basic Education, Angie Motshega (DBE, 2023), though South Africa performs poorly, the idea is not to compete with the best in the world in reading, but to learn from them. However, some critics see it as a platform for competition and not for measurement to inform learning and teaching of reading in primary schools. Therefore, evaluation of learners' reading achievement in the FP can serve different purposes: to make a periodic check on the effectiveness of curriculum (Fishbein et al., 2021), guidance of individual learners, provide psychological security to the school, teacher, learner, and parents, and see the direction learner and teacher are taking in reading concretely (Gündogmus, 2018). This implies that, for evaluation to be effective, the teacher must know what to teach first and then know how to evaluate what was taught. For measurement to be effective, what is taught also has to be relevant. Therefore, close monitoring of

teaching, learning, and measurement of FP reading is important and a must in primary schools.

In addition, reading assessment is crucial at the FP stage because it helps to determine the learner's strengths and weaknesses and strengthen the reading curriculum (Landsburg et al., 2017). Again, assessment helps to inform teachers' decisions on reading instruction and intervention (DoE, 2008). This is achieved through formal and informal assessment. Informal assessment is for teaching purposes, whilst formal assessment is the assessment of teaching, and both evolve around the learner and the teacher. The literacy skills that should be measured to determine reading achievement (Pretorius et al., 2016) fall under three major domains: phonological awareness, print knowledge, and orthographic knowledge (Dubeck & Gove, 2015). The phonological skills that unlock the ability to read are acquired through tasks that vary in difficulty from knowledge of rhymes, oddity tasks, blending, segmentation, and manipulation.

Reading assessment in the FP focuses on foundational reading skills, a critical point that teachers should know. Skills that are assessed include all foundational reading skills (Kaminiski, 2021): letter sounds, phonemic awareness, word reading, oral reading fluency, and reading comprehension. The skills are assessed directly, giving the teacher valuable feedback for planning teaching and interventions in reading.

Relatedly, Pretorius et al. (2016) posit that without appropriate assessment and knowledge to measure these reading skills, reading problems learners experience can go unnoticed, and only be picked up from PIRLS poor comprehension results, which mirror a lack of mastery of foundational reading skills in the FP. Therefore, assessment of FP reading is not just a matter of testing and assigning a mark, but a measure against a benchmark (Pretorius, 2022) to monitor whether learners are on track to be able to read with fluency and understanding when they exit the phase. Juke et al. (2020) defines a benchmark as a scientifically determined numerical measure of proficiency in a specific reading skill that can be used to monitor if learners are on track with their reading. In other words, these are milestones for reading in the FP that a learner should reach.

To be readers, these learners should be able to read fluently, accurately, and quickly if they understand what they are reading. New information is stored in short-term

memory for a limited time, and the ability to quickly convert graphemes into phonemes, hold the sounds in memory, and blend them in a correct order enables beginners to read (Pollatsek & Treiman, 2015). How learners with a mild intellectual developmental disorder learn to read, and the extent to which they acquire the foundational reading skills, can be determined against the Early Grade Reading Assessment (EGRA) English reading benchmarks. According to Pretorius et al. (2016), benchmarks provide a standard against which teachers can measure learners' reading sub skills and identify early learners who are at risk. The EGRA benchmarks for Grade 3 reading in English are: letter sound – 40 letters the learner can sound correctly in one minute; word reading – 70 words the learner can read in one minute; passage reading – 90 words the learner can read correctly and fluently in one minute.

In South Africa, EGRA has been identified by researchers (Spaull & Pretorius, 2022) and the GDE as one of the key reading assessments for Grades 1-3 (GDE, 2018). The EGRA is recommended by the South African DBE as a reliable and effective diagnostic reading assessment tool to track individual learners' reading progress and to detect reading difficulties in the early grades (GDE, 2018). This aligns with what was highlighted earlier, which is that reading measurement and evaluation inform the teacher concerning instruction and possible interventions. Therefore, in this study, EGRA is also recommended as a suitable reading assessment tool that can help teachers to monitor reading development in the FP with learners with a mild intellectual developmental disorder.

The literature has clearly shown how the reading teacher's knowledge of appropriate reading assessment, evaluation, and instruction can influence the acquisition of basic reading skills by learners with mild intellectual developmental disorders. However, some contextual factors can make it difficult for the FP teacher to teach reading effectively. The next section will briefly outline some known factors that might have the same effect in special schools. In the South African context, these are known as barriers to learning and in the context of this study, they are the barriers to reading.

2.7 BARRIERS TO READING IN THE FOUNDATION PHASE

The ability to read is crucial for every child, as already pointed out, but it comes with its own challenges in the classroom, creating barriers to reading. Phala and Hugo (2022) categorise these barriers as intrinsic or extrinsic. Intrinsic barriers are

conditions within the learner, such as a mild intellectual developmental disorder. Extrinsic barriers are conditions outside the learner, such as the organisational system of special schools, as illustrated by the conceptual framework. Barriers relating to reading include reading difficulties or disabilities, and challenges that stand in the way of the learner, creating problems with reading (DBE, 2014a; McGill-Franzen & Allington, 2011). These challenges come in many ways, and once a teacher picks them up, they can be addressed through appropriate interventions. It was pointed out that some children learn to read naturally, others through interventions and the majority through instruction. In other words, all learners are not the same, and the teacher should consider such individual differences during instruction.

Considerable research has already been done to investigate intrinsic barriers in reading which affect learners in the FP in mainstream schools, and which teachers in special schools should also consider. Govender and Hugo (2020) established that most Grade 3 learners in South Africa fail to reach the expected levels in reading. Relatedly, Phala and Hugo (2022) noted that learners in the FP faced many challenges as they learn to read, such as auditory memory, reversal of letters, difficulties in blending sounds, inability to pronounce letters, and failure to understand the meaning of words. Similarly, a study in Pakistan (Raheem et al., 2021), revealed several intrinsic barriers that resulted in reading difficulties in the FP; letter omissions, faulty word identification, lack of phonological awareness, lack of motivation, failure to decode, problems with fluency, accuracy, pronunciation, mother tongue interference, and limited vocabulary. Additional difficulties included failure to adapt to school physically and mentally, and children's age; they may be too young for reading (Gündogmus, 2018). Other extrinsic barriers cited in the literature include a lack of parental support, textbooks, and proper furniture (Van Bergen, 2016). What is amiss in the literature is how similar problems affect FP learners with a mild intellectual developmental disorder in special schools in Gauteng. The study argues that problems must be known to search for appropriate reading instructional and interventional practices to address them.

2.7.1 Extrinsic Barriers to Reading in South Africa

Besides intrinsic barriers, there are also extrinsic barriers to reading, which are the organisational factors that influence reading in a school, district, province, or country. These barriers can influence FP reading in many ways.

The qualitative research by Phala and Hugo (2022) using semi-structured interviews and observation in their findings similarly attributed the inability to read in the FP in South Africa to several extrinsic factors. These factors are language of teaching and learning (English), lack of basic reading skills, teachers lacking relevant teaching skills, lack of reading materials, overcrowding, home environment and many more (Phala & Hugo, 2022). The same issues were raised by The National Reading Strategy (DoE, 2008): language mismatch, teacher incompetence in teaching reading, and a shortage of books and teaching conditions.

What is more striking about these findings are factors linked to the classroom, which was also the focus of the study: teacher incompetence, overcrowding in a reading classroom, and the language of teaching and learning (Condy & Blease, 2014; Fleitch & Dixon, 2019; Mudzielwane, 2014; Van der Mescht, 2018). These are just some of the known barriers, but there are still other unknown causes that the DBE continues to investigate (DoE, 2008). Given this, further research studies in reading become imperative to fill the knowledge gap. Prior studies also recommend more research and evidence-based solutions to mitigate the reading problems in South African primary schools (Henning, 2016; Spaull, 2017). It is evident from research such as the Progress in International Literacy Study (Fishbein et al., 2021) that FP reading in South Africa is fraught with challenges. Further, it has to be noted that whilst studies have focused on reading problems in these mainstream primary schools (Phala, 2022), little is known about reading barriers in special schools.

2.7.1.1 *The Language of Teaching and Learning as a Barrier to Reading*

The language of teaching and learning in South Africa is another barrier cited in most literature as a barrier to learning to read in the FP (Landsberg et al., 2017). The large body of literature on reading barriers informs us that in the FP, most learners in South Africa (70%) start to learn to read in their dominant African home languages. There are nine of these languages. However, children from multilingual urban areas are forced to learn to read in English as there is no dominant language, as is commonly

found in rural areas (Pretorius & Spaull, 2016). Gauteng is cited as one example and the most urban province of South Africa, where languages are a salad bowl and even include other foreign home languages. In such cases, as Spaull and Pretorius (2019) noted, schools have no choice in the FP but to opt for teaching reading in English. Then, from the fourth grade onwards, English becomes the language for teaching and learning (LoTL) for all learners in South Africa. For these reasons, FP reading in the current Gauteng study is related to English.

Prior studies have pointed out some issues with the language of teaching and learning (Brown, 2009; Kunze, 2015; Spaull, 2017). One language issue raised is that teaching and learning language switches from the mother tongue to English at the end of Grade 3 (Spaull, 2017). In the same light, Leask (2020) explicates that in South Africa, most children learn in an African language in Grades 1-3 and then switch to English from Grade 4 onwards. This implies that children learn to read in one language from Grades 1-3 and then switch to reading in English from Grade 4. According to Spaull and Pretorius (2019), this switch creates an additional hurdle to learn to read in English, which is not a home language. Kunze (2015) questions this monolingual policy in reading from Grade 4 and blames it for the inability to read. This is so even though there are eleven official languages in South Africa.

However, Phuong (2019) refutes this claim and points out that data from assessments of Grade 1-3 learners who learn to read in their mother tongue indicated that most of these learners still cannot read in those languages. This led Phuong (2019) to conclude that there is a lack of research and theory here, creating a problem in knowledge, as there is no scholarly consensus on the benefits of learning to read in mother tongues and then switching to English. In support, Brown (2009) argues that a high percentage of learners never manage this transition from their mother tongue with reasonable accuracy to fluent reading. This might imply that learning to read in the FP is not about the language, but about foundational reading skills. Therefore, this raises a red flag for research to find out if this also applies to learners with mild intellectual developmental disorders in special schools.

2.7.1.2 Teacher Incompetence in Teaching Foundation Phase Reading

Teacher incompetence was cited as a cause of poor reading in South Africa (DoE, 2008). There is also a convergence of views that teachers do not know how to teach

learners to read, and many of them in the FP are not trained to teach reading (Henning, 2016; Phala & Hugo, 2022; Tau, 2023; Will, 2019). The argument is that there is no way teachers can effectively teach learners to read if they do not get that training in teacher education. It is unknown how this affects reading in special schools in Gauteng, as they are supposed to be staffed by specialists.

2.7.1.3 Department of Basic Education (DBE) Policy on Progression

Additionally, the progression policy was also cited as a reason for poor reading achievement in early primary school. Phala and Hugo (2022) point out that even if learners struggle to read by the end of Grade 3, the progression policy can allow them to progress to Grade 4 since learners are not supposed to repeat a grade twice. Research should investigate how this affects reading for learners with mild intellectual developmental disorders. However, this view can account for the poor reading performance of Grade 4 learners. Learners are just pushed, even if they can't read, when they must exit the FP. For example, 68% could not read at the Grade 4 level (DoE, 2008). If this view can be considered as convincing to warrant the reading problem in South Africa, there is, therefore, a need to further investigate reading in the FP classroom and see how teachers are teaching reading and if learners are learning to read.

The barriers to reading discussed here are some of the factors that can affect the smooth running of teaching reading in the FP in special schools in Gauteng. More importantly, there is the understanding and consideration of underlying disabilities as barriers to learning for special needs children. The implication is that a learner with a mild intellectual developmental disorder already has an extra load of a barrier in addition to the intrinsic and extrinsic barriers already discussed. In the absence of appropriate interventional practices in the classroom, such learners are already disadvantaged in learning to read compared to other learners with no such disability. In South Africa, the SIAS Policy (DBE, 2014a) is clear about the intervention action; screen, identify, assess, and support; the teacher with such learners should take. The following section further highlights these reading interventions to supplement reading instruction.

2.8 READING INTERVENTIONS

Reading intervention refers to targeted and systematic instructional support provided to learners who struggle with reading, to improve their reading skills and close the achievement gap (Endo, 2024; Kilpatrick, 2015; Llego, 2020; Madison, 2021; Moats, 2010; Scales, 2021). Scales (2021) posits that intervention provides additional support to learners performing below grade level. In addition, Madison (2021) sees intervention as a formal process for helping struggling learners prevent learning gaps from widening in later grades. Another definition of reading intervention is a programme that hinders or alters the action of reading failure by preventing it from occurring or stopping it if it has already started (Hiebert, 1994). As pointed out earlier, learners struggle to read because they cannot decode words due to poor phonological awareness.

However, research posits that with early and appropriate interventions, struggling readers can be helped to learn to read (Graham & Kelly, 2019). Moats (2020) explicates that, when learners at risk are placed in schools with effective principals, strong curricula, and well-supported teachers, they can also learn to read just like the advantaged learners. The implication is that, with appropriate instruction and intervention, learners with mild intellectual developmental disorders in special schools can learn to read if they get the support they need. Interventions in reading come in many ways and are implemented for different reasons. For example, the barriers cited above call for interventions, some at school, district or national level. The same is true with mild intellectual developmental disorders in the classroom; there has to be some action or measures to help learners in special schools learn to read.

2.8.1 Theories of Educational Interventions

An educational intervention is any strategy or series of strategies used to support any aspect of student learning. There are three types of educational intervention: academic intervention, accommodations, and modifications. This study will focus on academic intervention. These interventions will be linked to instructional practices employed in reading with learners with mild intellectual developmental disorders. The goal of academic intervention is to help learners meet grade-level expectations. Learners not only struggle with reading due to poor phonological awareness but also due to unequal provision of resources such as reading specialists, well-trained reading teachers, story books, graded readers and modern libraries, as Spaul (2023) pointed out. Therefore,

the reading teacher should always be prepared to accommodate learners varied and rapidly changing needs in the classroom. The Multi-Tiered Supports System (MTSS) model and the SIAS policy become relevant in identifying learners who require reading intervention. Scholars (Endo, 2024; Llego, 2022) tell us that some struggling readers either need small groups or individual attention, or more intensive intervention as suggested by models of reading intervention.

2.8.2 Reading Intervention Policies

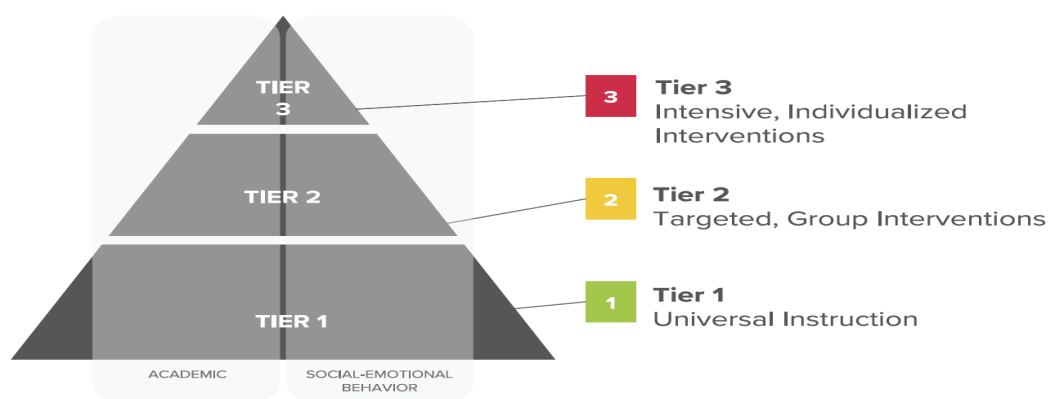
In South Africa, school interventions are guided by the SIAS policy. The Multi-Tiered Supports System (MTSS) is an intervention system widely followed in developed economies such as the USA, UK, and Ireland. It informs reading interventions in their schools.

2.8.2.1 The MTSS Model of Reading Intervention

Figure 2.2 depicts the MTSS model of reading intervention. As illustrated by the model, it is a three-tier intervention system. The MTSS model is a framework for identifying at-risk learners through universal screening.

Figure 2.2

Diagram to Illustrate the MTSS Model of Reading Intervention



Source: Adapted from Wanzek et al. (2018)

Wanzek et al. (2018) explicate that at-risk learners identified in Tier 1 would receive intensive reading interventions in Tier 2 in a small group of four struggling readers. If the problem persists, a more intensive approach will be needed in Tier 3 for some

individual learners. The only challenge with the model is that it does not specify the nature and the time frame of the intervention (Wanzek et al., 2018). This choice is left to the teacher; hence, this study aimed to seek teachers' input on the effectiveness of interventions used after that. For the intervention to be effective, there is a need to identify the struggling learners early and employ appropriate measures based on the individual needs of the learners. The MTSS model is silent about this. However, it is an advantageous system for identifying learners at risk and can be applied in special schools in Gauteng alongside the SIAS Policy.

2.8.2.2 *The SIAS Policy of Intervention in South Africa*

The SIAS policy of 2016 is an education policy document in South Africa that stipulates the intervention process in schools. The policy is silent about the tiers, unlike the MTSS reading intervention model. However, it defines levels of support: low level of support, moderate level of support and high level of support, which correspond with the tiers regarding school interventions. The policy generally describes the procedures to follow in identifying and supporting learners in need, but no provision addresses reading intervention like the MTSS intervention model, leaving it to the reading teacher. It was of interest to determine how the teachers in special schools further identified learners who needed intervention, since all learners in these schools were already referrals and needed intervention. Scholars acknowledge the importance of reading interventions as they supplement instruction and boost learner confidence in school. For example, in a meta-analysis by Wanzek et al. (2018), a study of 25 reading intervention programmes showed a positive result with an effect size of $ES=+0.39$. Lack of early intervention will lead to low self-esteem and possibly lead to the learner dropping out of school (Hook et al., 2015). Therefore, the interventional practices employed by the special school reading teachers should be seen as a way of creating confidence in the learner

2.8.3 Reading Interventions for Learners with Mild Intellectual Disorders

Reading interventions for learners with mild intellectual developmental disorders can be classified into several categories based on their focus, approach, and intensity (O'Connor & Vadasy, 2011). For this research, reading interventions can be categorised into the following types: phonics-based, phonemic awareness interventions, fluency-based, comprehension-based, multisensory, assistive

technology-based, and evidence-based interventions (Alnahdi, 2015; Endo, 2024; Graham & Kelly, 2019; Hallahan, 2015; Kilpatrick, 2015; Pretorius et al., 2016; Rasinski, 2017; Richardson, 2018; Torgesen, 2004; Wanzek et al., 2018; Whitbread et al., 2021). By understanding the different types of reading interventions, FP teachers in special schools can tailor their instruction to meet the unique needs of learners.

2.8.3.1 *Phonics-Based Interventions*

Phonics-based interventions focus on teaching learners the relationship between sounds and letters (Kilpatrick, 2015). These interventions are described by O'Connor and Vadasy (2011) as the alphabetic principle. They posit that where phoneme instruction and alphabetical letters are taught together, instruction becomes more effective than teaching phonemes separately. These interventions are supposed to be systematic and explicit, providing learners with a foundation in phonemic awareness and decoding skills. Research has demonstrated that phonics requires explicit, systematic, and cumulative instruction in a small group and can benefit struggling readers if the teacher chooses phonics for the right level (Endo, 2024). Teacher-made phonics in special schools in Gauteng must be considered as they might be more relevant for a multi-linguistic class as compared to computer-based and printed commercial charts.

2.8.3.2 *Phonemic Awareness Interventions*

Phonemic awareness interventions target the development of learners' ability to identify and manipulate individual sounds in words. These interventions involve games, rhymes, and other engaging activities to promote phonemic awareness (Torgesen., 2004). First, teachers must provide learners with additional support and opportunities in Tier 1 to segment, blend, and manipulate phonemes orally before moving to printed words (Endo, 2024). That might sound like going back to ECD, but it is important to note that learners with intellectual developmental disorder function two years behind their peers in the mainstream. In other words, a Grade 5 learner might be comfortable with Grade 1 work. It is therefore necessary to tailor interventional practices in the classroom to the needs of each learner.

2.8.3.3 Fluency-Based Interventions

Fluency-based interventions aim to improve learners' reading fluency, accuracy, and expression (Alnahdi, 2015). These interventions often involve repeated reading (Nielsen et al., 2007), choral reading, and other strategies to promote fluency (Rasinski, 2017). The fluency test exposes the reading challenges the learner might have, informing the teacher in planning for instruction and intervention.

Reading fluency interventions can involve one-on-one reading aloud sessions and feedback, guided oral repeated reading with teacher feedback, audio playing, modelled reading, assisted reading, and using digital software recordings (Llego, 2022).

Repeated reading (RR) was reported by Nielsen (2007) as an evidence-based strategy designed to increase reading fluency and comprehension through the development of automatic word processing and contextualised linguistic effect. This implies that struggling readers in the FP, who lack fluency in reading, can benefit from reading the same words or text many times. However, the problem here is that children can easily cram words, texts, and even books without effort, but not read for understanding. Therefore, the reading teacher should guard against such practices as this, as they do not improve reading skills.

There are many other ways of encouraging reading fluency, and as Alnahdi (2015) points out, it is up to the teacher to know some of these practices. In addition, other studies suggest that professional development, reading research, observing other teachers, and learning new trends are ways of sharpening instructional skills in the reading classroom (Abraham-Elliott, 2023).

2.8.3.4 Comprehension-Based Interventions

Comprehension-based interventions focus on teaching learners to improve their reading comprehension skills (Hallahan, 2015). The interventions involve techniques such as visualisation, summarisation, and questioning. However, for learners with mild intellectual developmental disorders, oral reading and oral comprehension are appropriate for these learners, as they struggle to read. Intervention in reading comprehension requires careful selection of texts by the teacher (Endo, 2024). Engaging students in oral discussion after reading aloud to the teacher, asking

students to summarise texts read, and asking oral questions are other intervention strategies for struggling Grade 1-3 readers. FP teachers can use targeted instruction to teach vocabulary, including oral reading discussion, explaining vocabulary, teaching word parts, and teaching content-specific vocabulary (Endo, 2024).

2.8.3.5 *Multisensory Interventions*

Multisensory interventions incorporate multiple senses (visual, auditory, kinaesthetic) to teach reading skills. These interventions often involve writing, including writing on paper and sand, and using manipulatives to promote learning (Hallahan, 2015).

2.8.3.6 *Assistive Technology-Based Interventions*

Assistive technology-based interventions utilise digital tools and software to support reading instruction. These interventions involve text-to-speech software, audiobooks, and other digital resources to promote reading development (Edyburn, 2010). It was mentioned that text-to-speech software is an effective assistive technology for learners with mild intellectual developmental disorders. Studies confirm that ClaroRead, a text-to-speech software application, improved reading accuracy and comprehension for these learners (Sensory Solutions, n.d.) Another research study, Natural Reader, showed that text-to-speech software yielded similar results as it enhanced reading fluency and vocabulary for these learners (Natural Reader, 2019). Research has also established that learners with intellectual developmental disorders benefit from e-readers and digital texts. A study demonstrated that using Amazon Kindle, an e-reader, increased reading motivation and engagement in learners with mild intellectual developmental disorders.

2.8.3.7 *Other Interventional Reading Practices in the Classroom*

Research has revealed some intervention practices worth implementing with FP learners in special schools. Llego (2022) found that reading centres in the classroom, including work, spelling, reading fluency, and writing centres, can help struggling readers (Llego, 2022). In each centre, the struggling reader works with a more competent partner and rotates daily or weekly, depending on the learner's specific needs. Reading clinics and tutoring are other strategies to use where FP learners struggle to read. There are many other ways of supporting the struggling reader, and the FP teacher should always consider what works best for each struggling reader.

It has been confirmed in this section that reading interventions can work for struggling readers. It is also claimed that over 15 years of contemporary research, as reported in literature (Newman-Gonchar et al., 2018), has confirmed that reading interventions are generally effective for Grade 1-3 learners and benefit them more in foundational reading skills. Again, many of these reading interventions are similar and effective in word reading. Further, research findings recommend early identification, explicit instruction, at least a 20-minute weekly session for 8 weeks, use of a certified teacher, and the intervention to be provided individually for learners struggling with reading in the FP. Furthermore, Morris et al. (2022) recommend using quantifiable learner reading benchmarked results to group, instruct, monitor progress, and for data-based decision making by the teacher.

However, there are extreme cases in reading that need specialist attention. In such cases, the teacher would have done his or her best to intervene, but with no success. These are Tier 3 individual cases that might require even more intensive intervention. Some intervention programmes have already been proven to work for at-risk learners in the FP. These programmes are highlighted below.

2.8.4 Evidence-Based Reading Intervention Programmes

In this section, the term reading intervention is further clarified by Richardson (2018) as:

“a formal program with specific goals, objectives, and structured components (e.g., a defined curriculum, an explicit number of hours or dosage, and an optimal length of time) to ensure that the programme is implemented with fidelity to its model.”

Effective reading intervention programmes are not only research-based but also evidence-based. For the intervention programme to be evidence-based, Richardson (2018) explicates that it must undergo rigorous testing to determine its effectiveness in an uncontrolled group. This definition clearly outlines the various aspects of a Tier 3 intervention programme, which is a well-planned process with set goals, objectives, and targets. Intensive reading interventions, therefore, require thorough planning with clearly set objectives within a specific time frame. Richardson also argues that these interventions should not be confused with some instructional strategies that might be common in reading but are not research-based. Therefore, evidence-based

interventions are not just any instructional programmes, but known, tested, research-based practices that should be implemented with fidelity.

Extensive research has already been done internationally to identify these programmes. For example, Meiklejohn et al.'s (2021) review of South African primary school reading interventions from 2005 –2020 provides an overview of evidence-based intervention programs that the government has undertaken in primary schools.

Slavin et al. (2009) report on successful interventions, a review of all approaches evaluated as solutions for struggling K-5 readers in the USA, UK, and Ireland. Therefore, there are already many known effective intervention programmes that are evidence-based, but it's not known how they can benefit struggling readers in special schools to learn to read. However, knowledge of these interventions is important to teachers in special schools.

2.8.4.1 One-To-One Tutoring Programme

Slavin et al. (2009) reported that in a study of 19 intervention programmes, one-to-one tutoring was the most expensive, but it had strong evidence of effectiveness. Similarly, Reynolds et al. (2010) also reported the same findings and added that one-to-one tutorials by trained professionals are the most effective instructional approach for teaching struggling readers. As explained by Slavin et al. (2009), the programme emphasises phonics, decoding skills, teacher training, and reading. Examples of one-to-one intervention approaches include Reading recovery, reading with phonology, and early rescue intervention programs. Reading recovery has been reported as one of the most researched programs in the world and is implemented in New Zealand, Australia, Canada, the UK, Ireland and the United States (National Educational Psychological Services, Ireland, 2019). A study by Wasik and Slavin (1993, as quoted by Reynolds et al., 2009, p. 179) of reading programmes featuring one-to-one tutoring found that “effect sizes ranged from 0.5 to 1.0, indicating that tutored students gained appreciably more than comparison learners who did not receive tutoring”. Positive effects were also reported in Britain with ratio gains of 4.0.

2.8.4.2 Classroom Instructional Process Programmes

According to Slavin et al. (2009), classroom instructional process programmes are a potential solution to reading for struggling learners. The intervention strategy is to

enhance the quality of instruction in Tier 1 in the regular classroom and reduce the number of learners needing more intensive intervention in Tier 2. Slavin et al. (2009) also concluded in their research that providing high-quality instruction from the outset is the best approach to help struggling readers. It was also concluded that professional development for teachers surpasses all the other programmes that provide technology, alternative curricula, and other interventions. In other words, the key to helping struggling readers learn to read is in the teacher. Additionally, Slavin et al. (2009) say that by adopting cooperative learning or structured phonetic models, teachers can enhance the learning of struggling readers, and this prevents frustration, demotivation, and the stigmatisation of the learners themselves.

2.8.4.3 *Acceleread/Acclewrite Programme*

This is a computer-based program developed in 1994 by Clifford and Miles using talking word processors (Clifford & Miles, 1998). The program, as reported, was upgraded in 2015 to include an iPad app, integrated text-to-speech function and progress tracking. In line with this, the program is interactive and has the potential to motivate struggling readers as learners can type text, read back, and self-correct errors. In the Waterford Projects conducted from 2006 to 2010, the Acceleread/Acclewrite Intervention program was reported as having an effect weight of 0.18 (Powers & Price, 2006). ARROW (Aural-Read-Respond-Oral-Write) is another computer-based intervention programme for learners with mild intellectual developmental disorders. Research in Ireland reported the program as effective with a weighted effect size of 0.34 for word reading.

2.8.4.4 *Wordsworth Literacy Programme*

Wordsworth is an intervention programme developed by Rita Tracy which focuses on reading and spelling. It is a step-by-step package of 104 video tutorials with 330 interactive exercises requiring no special training (National Educational Psychological Service Ireland, 2019). The programme runs for 16 weeks with 15-minute sessions each day, and seven levels which should be followed in a structured order. The programme's effectiveness was reported to have ratio gains of 3.9 and a weighted mean of 0.78 in word reading. The progress of learners is tracked using a multi-choice questionnaire. This programme is again technologically based as it is delivered on computers, smart-boards, tablets and smartphones.

2.8.4.5 *The Wilson Reading System*

The Wilson reading system is another intervention programme appropriate for struggling readers in the FP. It was developed in 1988 and designed for learners who struggle with word-level difficulties. The programme addresses the five components of early reading: phonemic awareness, phonics, vocabulary, fluency and comprehension. Interventions are based on direct instruction and applied step-by-step from phonemic awareness to comprehension. As Sheehan et al. (2017) reported, gains in diagnostic word reading were 13.4 and standard scores (effect size of 0.89) were realised over two years (National Education Psychological Service Ireland, 2019). These results show that direct instruction on the five key skills in reading can also be an effective solution for struggling readers in special schools.

2.8.4.6 *Peer Assisted Literacy Strategies (PALS)*

Slavin et al. (2009) also evaluated peer-assisted strategies and found their effect size to be +0.89 for word identification. This indicates another effective approach for teaching struggling readers to read. In this approach, the children become teachers taking turns teaching phonemes, phonics, sound blending, passage reading, and storytelling. In a study by King (2016), a ratio gain of 7.3 in reading was reported in eight weeks (National Educational Psychological Service, Ireland, 2019). Peer-assisted reading can also involve an adult or community volunteers, as in Ireland. However, it was pointed out that peer-assisted reading requires tutors' training and monitoring of progress, which is a good idea for effective instruction.

2.8.4.7 *Cooperative Integrated Reading and Composition (CIRC)*

The approach involves the instruction of the whole class before learners break into member teams for group reading activities. Large-scale evaluations found positive effects in reading for this approach. The effect size of + 0.40 was reported, suggesting that it is quite effective for struggling readers.

2.8.4.8 *Reading and Integrated Literacy Strategies (RAILS)*

Slavin et al. (2009) describe this intervention as an approach to a professional development programme. Before the intervention, teachers are trained in explicit instruction in “phonemic awareness, phonics, comprehension and vocabulary”. It is considered an ideal approach for schools where many learners struggle with reading.

When evaluated in a small city in Pennsylvania (USA) for grade K-2 special education classes, the effect size was + 0.49 (Slavin et al., 2009). This approach is appropriate for this study since many learners in special schools also struggle to read.

2.8.4.9 Reading Styles

Reading styles is yet another child-centred intervention approach. In this approach, interventions are based on the learner's preferred style of reading, for example, phonics or whole words. A study carried out in Northwest Ohio (USA) reported an overall effect size of + 0.36 for Grade 2-6 oral and silent reading. In some cases, the challenge will be class size if class management for young readers is to be considered.

2.8.4.10 Direct Instruction (DI)

This approach is based on structured phonics instruction, in which learners are taught to master decoding and comprehension step by step. The special feature of this approach is that it is structured, and learners are taught step by step. A step-by-step approach has the potential to improve the mastery of decoding skills. An evaluation of the approach carried out in southern Mississippi (USA) for at-risk learners had an effect size of + 0.49 as reported by Slavin et al. (2009).

2.8.4.11 Project Read

Project Read is another phonics-based intervention that uses systematic phonics progression. When evaluated in the USA, an effect size of + 0.59 was reported, suggesting that it is also suitable for struggling readers. This study suggests that it can be implemented with FP learners in special schools since their reading curriculum emphasises phonics.

2.8.4.12 Precision Teaching

This intervention approach uses a token economy, behaviour modification strategy (Slavin et al., 2009). The approach was designed by Haring and Krug (1975) to help disadvantaged African American children learn to read. An effect size of +1.18 was reported. The high achievement could be attributed to the token economy, which suggests that if learners are motivated in a certain way, their reading skills can improve. It was also of relevance to the current study to find how teachers in Gauteng special schools motivate their learners to read.

2.8.5 Research-Based Reading Intervention Programmes in South African Schools

The review identified some large-scale, longitudinal, and small-scale reading interventions already implemented in primary schools (Meiklejohn et al., 2021). For example, the Gauteng Primary Language and Mathematics Strategy (GPLMS), the Reading Catch-UP study (RCUP), the Early Grade Reading Study (EGRS), the Siyajabula Siyakhula KaMhlanga Learners Regeneration Project (SI-SIC), and the English Second Language (ESL) intervention are interventions already rolled out in primary schools. However, the literature does not tell whether similar programmes were rolled out in special schools. We are also unaware of their effect on reading for learners with a mild intellectual developmental disorder.

Longitudinal interventions such as Reading is Fundamental have already been rolled out (Meiklejohn et al., 2021). Furthermore, 14 other small-scale reading interventions have also been rolled out, for example, reading to learn, shared storybook Reading, and the Professional Development School model. However, what stands out from these interventions is that it is not known how effective they are for special learners with mild intellectual developmental disorders. More importantly, Meiklejohn et al. (2021) reported that these interventions were generally ad hoc and uncoordinated and brought no systematic change in schools where they were rolled out. This suggests that the reading interventions were not implemented with fidelity. Besides the South African case, reports elsewhere indicate that evidence-based intervention programmes yield positive results when implemented with fidelity.

2.9 GAPS IN LITERATURE

Several gaps in the literature emerged from the literature review, including:

- A lack of research on reading for learners with mild intellectual developmental disorders
- Limited understanding of effective reading instructional and intervention practices for these learners
- Insufficient attention to the role of teacher training
- The need for more research on reading interventions for learners with MIDD
- Limited understanding of the benefits of reading instruction in special schools

- The need for more research on the use of technology for reading in special schools
- The need for more research on the impact of cultural and linguistic diversity in teaching Foundation Phase reading in special schools in Gauteng.

Therefore, the study aimed to contribute to a better understanding of reading instruction for learners with mild intellectual developmental disorders in special schools in Gauteng and provide insights into effective practices that can be used to support the learners.

What stood out most from the literature review was the lack of research on reading instruction for Learners with MIDDs in special schools in Gauteng. Inability to read at grade level in primary education remains a global challenge that needs research-based solutions to overcome. This topic has gained considerable attention in academic literature for decades (Solity, 2020; Yaden et al., 2021), but still, children struggle to read. In most cases, many existing studies in broader literature have concentrated on Intermediate Phase reading in primary schools (Brugging et al., 2022), sidelining FP reading. In South Africa, scholars have mainly dwelt on reading comprehension for mainstream school Intermediate Phase as well, sidelining the FP reading, where learners acquire the foundational reading skills first, enabling them to read at that level later.

More importantly, in South Africa, there is also deep silence on special school reading in general, and even more worrying, a dearth of information on the state of FP reading in these schools. For example, there is currently little research reported in the literature on how learners with mild intellectual developmental disorders in these schools are taught to read and, at the same time, how they benefit from that teaching. Teaching reading in these schools is equally important as that of mainstream schools. According to Meiklejohn et al. (2021), the causes of poor reading, solutions, and resources to mitigate the challenges are known for the Intermediate Phase mainstream reading. Although the mainstream children at this phase continue to face challenges in reading, at least, their problems and possible solutions are known, unlike the FP reading in special schools.

There is a convergence of research findings on the most effective ways of helping struggling FP readers catch up with reading (Abraham-Elliott, 2023; Calderwood, 2023;

Endo, 2024; Morris et al., 2022; Raheem et al., 2021). These findings are important when they are adapted for FP reading in special schools in Gauteng, as they can go a long way in contributing to effective instruction and support for learners with mild intellectual developmental disorders in these schools. However, there is a need for more research on this. The same is true of instructional practices (Brainbridge, 2021; Crawford & Turgersen, 2007; Morris et al., 2021; Spaul, 2017) identified in this chapter and recommended for struggling learners.

These instructions and interventions align with the five pillars of reading already identified, and the implication is that both the reading instructional and interventional practices are relevant to the FP, as they target the core reading skills in the FP. The only weakness of these suggested instructions and interventions is that they are not explicitly intended for exceptional school learners with mild intellectual developmental disorders, and they are also Eurocentric in nature. Most of them refer to reading in English, whereas for children in special schools in Gauteng, English is their second language (DBE, 2024). Therefore, their learning of reading is rooted in the linguistic characteristics (Daschula & Anthonissen, 2018) of the 11 different African languages of Gauteng, which are further enhanced with the inclusion of various foreign African languages. As a result, research still needs to fill in these multi-lingual, cultural and linguistic knowledge gaps in FP reading in special schools.

Technology has the potential to turn around reading in special schools in Gauteng, as evidenced by its impact elsewhere (Hannaway, 2019; Venketsamy & Hu, 2022). However, it has emerged that this area is under-researched in special schools in South Africa despite the e-Education policy being introduced to all public schools (DBE, 2004). There is a need for more research to find out how technology is being embraced in teaching reading; there is also silence in research here, or recommendations on how best assistive technology could be effectively incorporated into FP reading in a special school.

Teacher training and support are critical factors in examining the effectiveness of reading instruction (Solari et al., 2023) in special schools. Yet there is a lack of research on how the FP teachers are professionally equipped and how they can be equipped, as well as the role teacher training plays in producing teachers who are

competent enough to support reading development for learners struggling with reading.

Furthermore, the review of South African primary school interventions rolled out in primary schools from 2005 to 2020 (Meiklejohn et al., 2021) does not mention special schools. Similar large-scale, longitudinal, and small-scale reading interventions for special schools are not reported in the literature, which is another knowledge gap in the literature. This study was an attempt to narrow this knowledge gap.

2.10 CHAPTER SUMMARY

The literature review aimed to help the researcher understand, explain, and test the wealth of knowledge on how children learn to read. This was necessary in order to gain a comprehensive understanding of FP reading instructional and interventional practices employed to teach learners with mild intellectual developmental disorders to read. Again, the review aimed to synthesise the current knowledge on effective reading instructional practices, interventions, and strategies for these learners. Specifically, this chapter examined the empirical evidence on applying phonemic awareness, phonics, fluency, vocabulary, and comprehension to these learners. The literature review also explored the role of technology accommodations and modifications in supporting FP reading instruction. This chapter also identified gaps in current knowledge by analysing the existing research. Further, it informed the development of effective reading instructional practices for FP learners with mild intellectual developmental disorders.

The literature revealed many reading instructional and interventional practices. Much of the success of the practices depends on the teachers' background knowledge of reading theories, theories of learning, knowledge of intellectual disability, teacher training, and the school as a system. In the developed world, the MTSS (RTI) models of reading intervention are used and have proved to be effective. In South Africa, intervention is informed by the SIAS policy. Again, the literature review highlighted some evidence-based reading instructional and interventional strategies and approaches which have proved effective for struggling readers. In addition, the literature survey of the content on reading highlighted some themes related to the research question, such as teaching reading, learning to read, reading to learn, foundational reading skills, special schools, and intellectual developmental disorders.

These themes helped to give weight to the topic under discussion. They were also linked with the primary research question: The main research question implied that the teaching and learning of reading in the early grades is complex and that different factors shape reading in special schools.

Moreover, the literature helped refine the research topic and develop the conceptual framework that guided the design of the study and the interpretation of the findings. It also made it possible to identify some contradictions in the teaching of reading and gaps and silences in the area of research. Even more important, the literature review informed the methodology for the study.

Further, given the limited research on FP reading in special schools in Gauteng for learners with mild intellectual developmental disorders, the literature revealed considerable ways of teaching struggling readers to master foundational reading skills. The British reading framework (Gibb, 2022), which is championing the teaching of phonics to improve early literacy in England, is one approach worth emulating, as highlighted in the literature. In addition, other research studies indicate that, where appropriate assessment is carried out, it is possible to pick out learners' reading difficulties and plan effective interventions informed by different theoretical understandings (Sermier Dessemontet et al., 2021). The next chapter will discuss the conceptual framework for this study.

CHAPTER 3: CONCEPTUAL FRAMEWORK FOR THE STUDY

3.1 INTRODUCTION

Teaching reading to learners with mild intellectual developmental disorders requires an understanding of the complex interactions between cognitive, organisational, social, and emotional factors and classroom practices. The study aimed to explore the effectiveness of reading instructional and intervention practices employed by FP teachers in special schools to improve the acquisition of the foundational reading skills by learners with mild intellectual developmental disorders (MIDD). A conceptual framework was necessary to guide the study and provide a theoretical foundation for achieving and understanding the findings.

The conceptual framework and reading framework theories were integrated to provide a comprehensive understanding of the complex factors that influence reading instruction and intervention for learners with mild intellectual developmental disorders. The chapter starts by highlighting the key theories that were integrated into the conceptual framework. This is followed by examining the components and application of each theory. Next the reading frameworks incorporated for the FP are discussed. The chapter then examines how the theories and frameworks intersect and inform one another, highlighting areas of convergence. Subsequently, the conceptual model for the study is presented to provide a visual representation of the relationships between the key theories and frameworks. Lastly, the assumptions and limitations of the study emanating from the conceptual framework are highlighted, leading to the conclusion of this chapter.

3.2 KEY THEORIES

The conceptual framework for this study is grounded in five key theories: Working memory (WM), cognitive load theory, simple view of reading (SVR), universal design for learning (UDL), and the multi-tiered system of supports (MTSS).

3.2.1 Working Memory

Philips (2024) defines working memory as the brain's system for temporarily storing and managing information. As further explained by Morgan et al. (2011), two kinds of working memory work together: Auditory and visual-spatial memory, as shown in Figure 4.1 below. The auditory working memory in reading helps children to remember

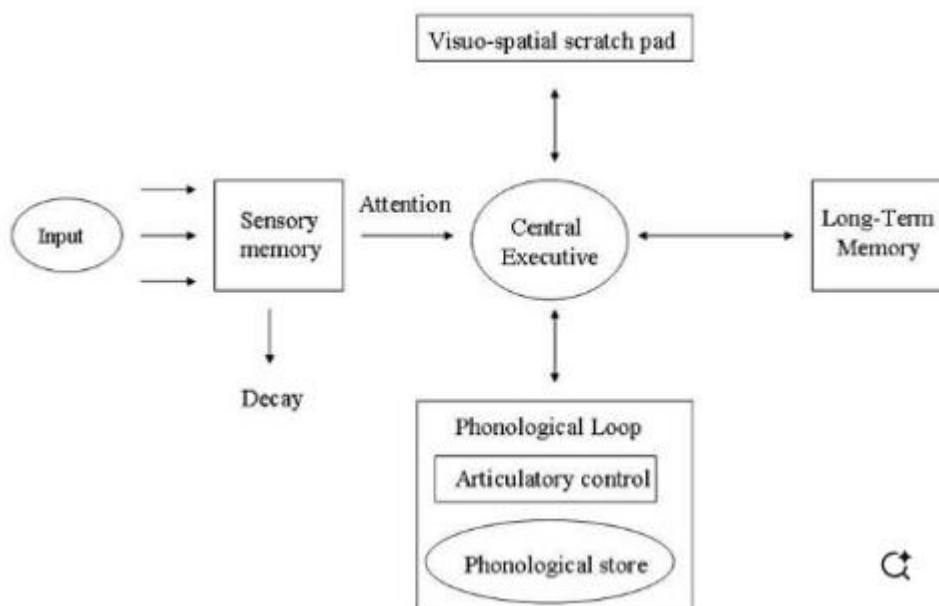
sounds and their association with letters, whilst the visual memory helps them to remember what those words look like, which is how working memory plays a more direct role in facilitating FP reading (Rogers, 2022). Again, studies by Rogers (2022) confirm stronger relationships between working memory and decoding in young children, making the theory even more relevant to the teaching of reading to Learners with MIDDs in this study. In his findings, Rogers (2022) reports as follows:

“In early primary school, a child is learning to recognise the different letters and associating them with the correct sounds, which actively engages the working memory. As the skill is developed, decoding letters becomes an automatic process which requires less working memory”.

Figure 3.1 depicts Rogers’ (2022) model of working memory.

Figure 3.1

Working Memory (WM)



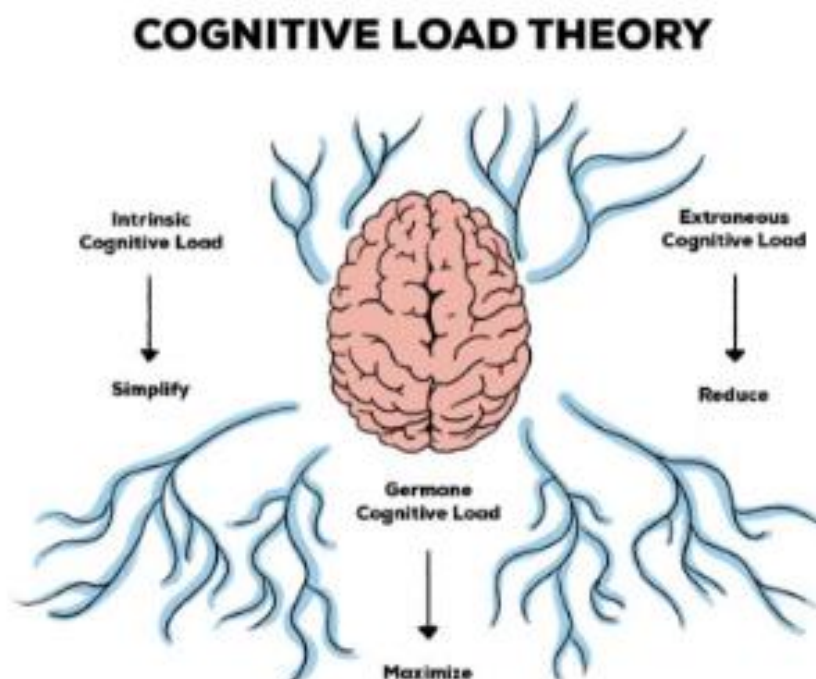
Source: Baddeley and Hitch (1974)

Working memory, as shown in Figure 3.1 above, is responsible for the skills children use to learn to read (Morgan et al., 2011), and therefore, the theory is ideal for integrating into the teaching of FP reading in special schools.

This theory is also relevant to the conceptual framework for teaching FP reading because, as children learn to read, the sound is of primary importance as the brain learns how to match visual symbols to the sounds of the language we are reading (Gillis-Fufutaka, 2021). This makes WM a phonological awareness component in reading (Baddeley & Hitch, 1974). Working memory underlies both phonological awareness and word reading efficiency and, as such, impacts reading (Knoop Van Campen et al., 2018). A normally functioning phonological loop is said to make this process fast and efficient. The episodic buffer processes multimodal information from different sources and can extract long-term memory. It was pointed out in the literature review that working memory has a profound impact on reading since sounding out words requires that a child holds each letter sound in working memory before putting them together to form a word (Philips, 2024). Linked to working memory is the cognitive load theory discussed in Chapter 2, which explains how thinking and learning have a cognitive effect on the brain (Fuhrman et al., 2017). Figure 3.2 below shows that cognitive load can be categorised as intrinsic, extraneous, or germane.

Figure 3.2

The Cognitive Load



Intrinsic cognitive load refers to the inherent complexity of material being learned (Sweller, 2010).

In the FP intrinsic cognitive load is influenced by factors such as phonemic awareness, decoding, and comprehension (Kilpatrick, 2015). Research has shown that instructional material that is high in intrinsic cognitive load can lead to a decreased comprehension and increased cognitive overload (Harrower, 1999). Extraneous cognitive load refers to the mental effort to process unnecessary information (Sweller, 2010). In the FP, this load can be influenced by factors such as decorative graphs, complex font styles, and irrelevant illustrations (Mayer, 2009). Again, research has shown that high instructional content in extraneous cognitive load can lead to decreased comprehension and increased cognitive overload (Hegarty & Just, 1993). Germane cognitive load refers to the mental effort required to process relevant information (Philips, 2024). In the FP, reading is influenced by factors such as explicit phonics instruction, guided reading, and reading strategies (Cunningham, 2001). Research findings have shown that instructional materials high in germane load can increase comprehension and improve learning. The implication here is that the FP teacher should design reading instructional materials for learners with mild intellectual developmental disorders with caution and guard against overloading the learner.

Rogers (2022) also suggests that reading instruction can develop working memory by challenging learners to recall. Besides that, reading instruction should avoid combining different ideas, visual support, repetition, and practice. This is required for learners with mild intellectual developmental disorders to ease the load on working memory. The cognitive load theory suggests that FP teachers should avoid overloading the MIDD learner but rather design instruction that reduces the load. Studies on the effectiveness of assistive technology in reading consistently point out that Learners with MIDDs benefit from the use of text-to-speech software and other digital tools that reduce cognitive load (Bouck et al., 2018).

Therefore, the working memory and cognitive load have significant implications for reading instruction in the FP in special schools, and for this reason, they have been incorporated into the conceptual framework. Research has established that cognitive load contributes to the challenges learners with mild intellectual developmental disorders face in learning to read (Sweller, 2010). In the context of reading instruction,

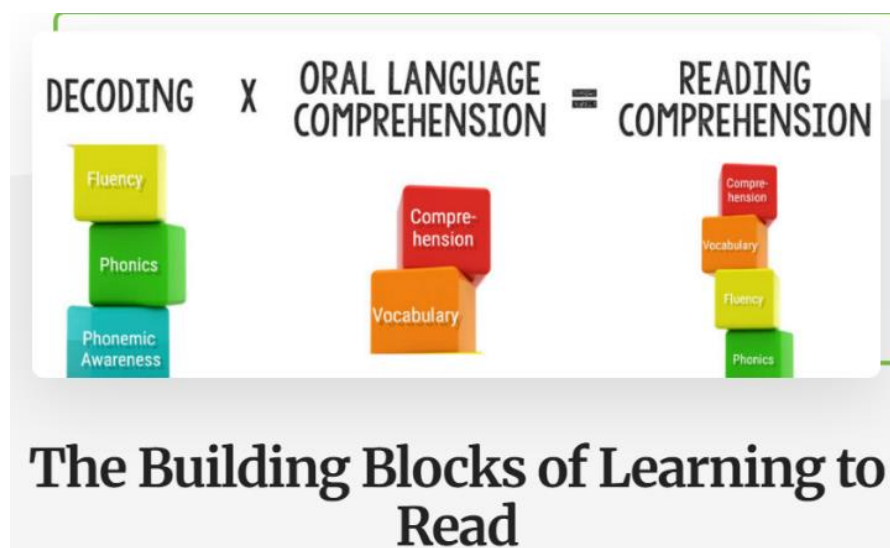
cognitive load can be particularly problematic for these learners, as they may struggle to process and retain information due to limitations in working memory and processing capacity (Alloway, 2010).

3.2.2 The Simple View of Reading

The *simple view of reading* is another theory incorporated into the conceptual framework (Gough & Tunmer, 1986). The model posits that reading comprehension is a product of decoding and linguistic comprehension, as shown in Figure 4.3. Decoding refers to the ability to accurately read words, while linguistic comprehension refers to the ability to understand the meaning of the text. The SVR model, as depicted in Figure 3.3, provides a useful structure for understanding FP reading; hence, it is also included in the conceptual framework. Learners with mild intellectual developmental disorders often struggle with decoding due to difficulties with phonemic awareness, phonics, and fluency, as shown below (Kilpatrick, 2015). This framework helps to understand the reading difficulties these learners face.

Figure 3.3

The Simple View of Reading (SVR) Model



The Simple View of Reading (SVR) (Gough & Tunmer, 1986) embraces the bottom-up and top-down theories of reading and emphasises decoding as the basic skill to enable comprehension, as illustrated in Figure 4.3. This model provides a foundation

for understanding the components of reading leading to comprehension. Decoding in this theory is quite relevant to FP reading, which is about the foundational reading skills emphasised by this theory.

The SRV theory of reading has important implications for FP reading instruction for learners with mild intellectual developmental disorders. The FP reading teachers should prioritise the development of decoding and linguistic skills, using evidence-based instructional strategies such as systematic phonics instruction and guided reading (Kilpatrick, 2015). Additionally, teachers should provide targeted support to MIDD learners, using accommodation and modifications to meet their unique needs.

3.2.3 Phonological Awareness Theory

The Phonological Awareness Theory (Stanovich, 1993) is another complementary theory that informs FP reading. The theory also acknowledges the importance of phonological awareness in reading development. This theory resonates with the teaching of FP reading and is very relevant to the study.

Phonological awareness theory posits that the ability to manipulate and recognise phonemes is a critical component in reading development (Kilpatrick, 2015). This theory can be integrated with the simple view of reading, universal design for learning, cognitive load theory, and the MTSS to give a comprehensive conceptual framework for a study into FP reading instruction in special schools. Phonological awareness is a reading component, one of the two primary components of reading comprehension according to the SVR framework (Gough & Tunmer, 1986). Research has reported that phonological awareness can improve decoding skills (Ehri, 2020). Therefore, integrating Phonological Awareness theory with SVR can provide a more nuanced understanding of FP reading in special schools.

3.2.4 The Universal Design for Learning

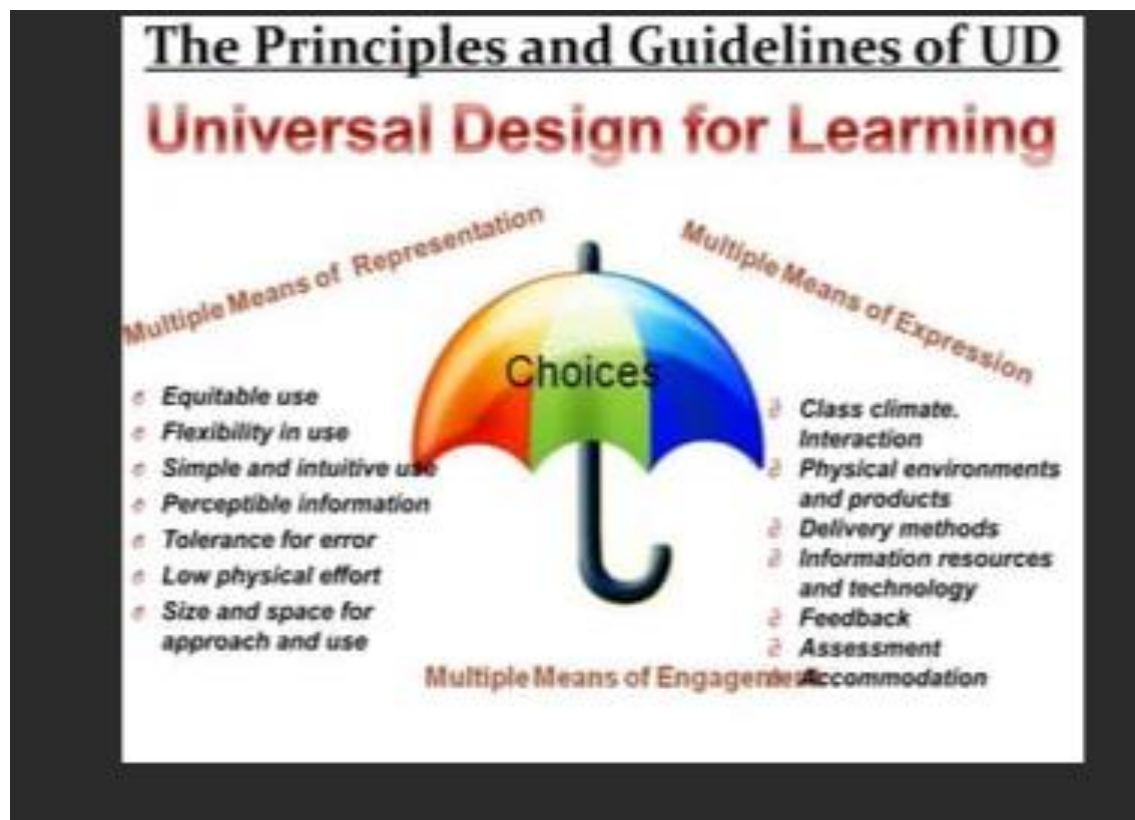
The conceptual framework incorporates the Universal Design for Learning (UDL) as another complementary theoretical perspective. The UDL is a theoretical framework that aims to provide learners with equal opportunities to learn by designing instructional materials, methods, and assessments that are accessible and engaging for all learners (Rose & Meyer, 2011). The model emphasises the importance of

providing multiple means of representation, expression, and engagement to support learner diversity (Meyer & Rose, 2014), which makes it relevant to this study.

The UDL is an educational framework that aims to provide all learners with equal educational opportunities by designing instructional materials and methods that are accessible and engaging for every learner (Meyer et al., 2014). The UDL, as illustrated by Figure 3.4, is based on three primary principles: multiple means of representation, multiple means of action and expression, and multiple means of engagement.

Figure 3.4

Principles of the UDL Framework



Multiple means of representation mean providing learners multiple ways to access and understand information, such as text, images, audio, and video (Meyer et al., 2014). Multiple means of action and expression refer to providing learners with multiple ways to express their knowledge, such as writing, drawing, speaking, and using technology. Multiple means of engagement provide learners with multiple ways to engage with learning materials, such as choices, games, and simulations.

The principles of UDL are ideal for reading instruction and intervention for FP learners in special schools in many ways. For example, providing multiple means of representation, such as visual and auditory support, can help learners with varying learning styles and abilities develop phonological awareness. Additionally, offering multiple means of action and expression, such as opportunities to practice phonological awareness skills through games, singing, and other activities, can help learners develop reading fluency and automaticity.

As such, this theory has the potential to inform the development of reading instruction tailored to the needs of learners with mild intellectual developmental disorders in special schools in Gauteng. Incorporating the UDL helps to remove barriers to learning by making education more inclusive (Edyburn, 2010). Again, UDL can increase motivation and engagement and lead to better reading outcomes for these learners.

3.2.5 The Schoolwide Reading Model

The model can be adopted to provide a comprehensive and integrated approach to understanding the complex processes involved in teaching reading to learners with intellectual developmental disorders in the FP in special schools in Gauteng. This framework recognises the importance of designing instruction that is accessible and engaging for all learners.

Grounded in the principles of universal design for learning (Meyer et al; 2014), response to intervention (Fuchs & Fuchs, 2006), and the simple view of reading (Gough & Tunmer, 1986); the *schoolwide model* offers a nuanced understanding of the interrelationships between reading instruction and development, and learner outcomes. The schoolwide reading model originated in the 1990s in the United States as a response to the growing concern about reading achievement and literacy development among students, particularly those from diverse backgrounds.

Similarly, this study is concerned with the reading achievement of learners with intellectual developmental disorders in the FP in special schools in Gauteng. The model was developed by a team of researchers and educators led by Dr Barbra M. Taylor at the University of Minnesota (Taylor et al. 2014), hence its credibility to this study. The *Schoolwide Reading Model* (Taylor et al.; 2014) is based on several key principles, including a school-wide focus involving all teachers, administrators, and staff. In addition, a comprehensive and integrated approach to reading instruction in

early grades should incorporate multiple components, such as phonemic awareness, phonics, fluency, vocabulary, and comprehension. These are the basic reading skills for FP reading examined in this study.

Again, the model recognises the diversity of learners' needs and abilities and advocates for differentiated reading instruction to meet these unique needs. Notably, the model emphasises the importance of ongoing reading assessment and progress monitoring to inform instruction and make data-driven decisions. This is quite relevant and important to this study, as reading instruction in the FP needs close monitoring and data-based decisions for informed reading instruction and intervention.

Moreover, the schoolwide reading model recognises the critical role of professional development and support for teachers and staff in implementing effective reading instruction. This is essential when teaching learners with mild intellectual developmental disorders. For these reasons, the schoolwide reading model (Taylor, 2014) was adopted as the basis for the conceptual framework for this study.

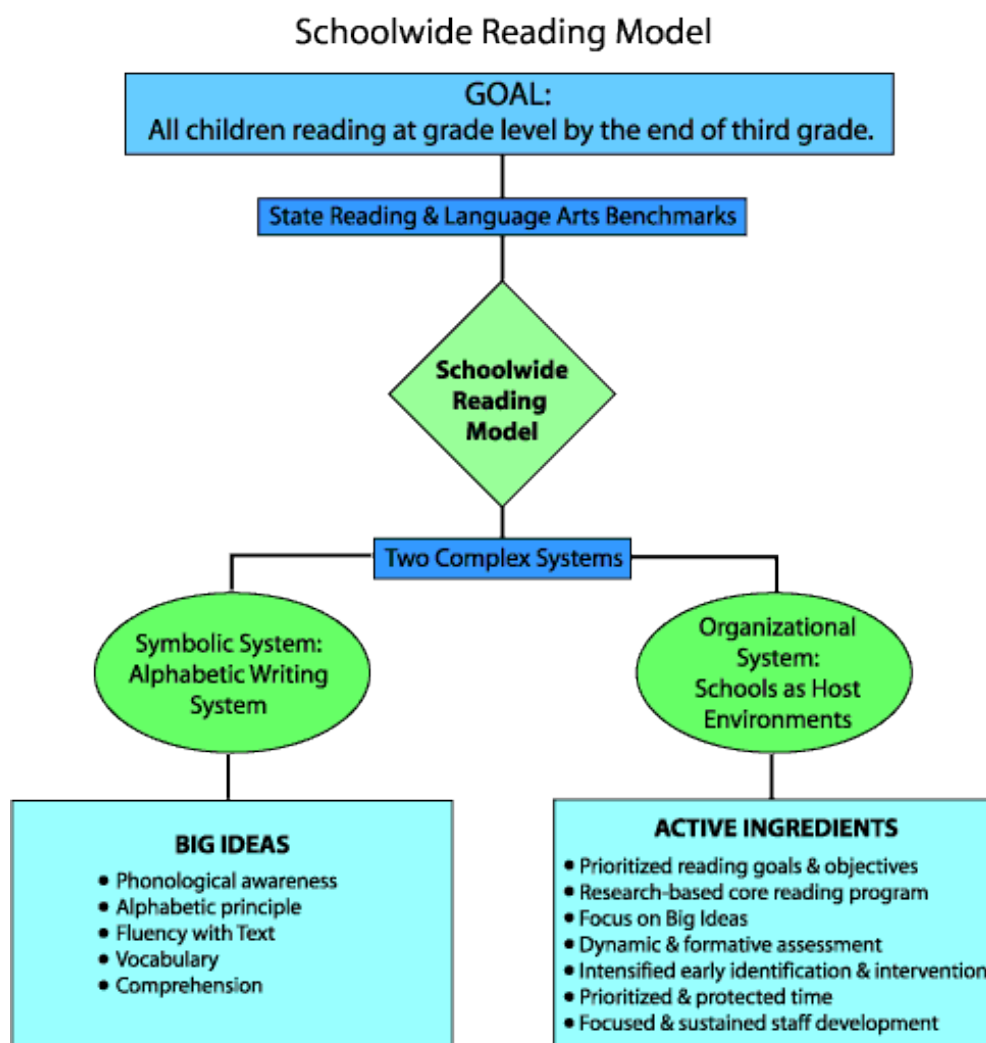
Overall, the schoolwide reading model was adopted as a conceptual framework for this study due to its comprehensive and integrated approach to reading instruction, which aligns with the complex needs of learners with mild intellectual developmental disorders in special schools in Gauteng. In particular, the model was adopted for this study due to its emphasis on creating a school-wide approach to teaching reading, differentiated instruction, and ongoing assessment and progress monitoring, which resonates with the teaching of learners with diverse educational needs (UNESCO, 2017). More importantly, the model is suitable for integration into the conceptual framework for the study due to its focus on phonemic awareness, phonics, fluency, vocabulary, and comprehension earlier mentioned. The model is essential for the teaching of reading to FP learners who may require more explicit and systematic instruction (Kilpatrick, 2015; Moats, 2017). The schoolwide reading model's adaptability to learning contexts and its emphasis on teacher collaboration and professional development make it an ideal framework for the study.

As illustrated by the schoolwide model in Figure 4.5 below, teaching learners to read in school involves many things: the learner, the teacher, the parent, the school, and all the resources required. The schoolwide reading model by Zins and Ponti (1990), adopted as the conceptual framework for this study, neatly sums up the factors that

matter in improving the reading trajectories of at-risk learners. As shown by the model (Zins & Ponti, 1990), teaching reading in schools integrates two complex systems: the symbolic and organisational systems (See Figure 3.5). The Schoolwide model depicts the factors that can influence reading in the FP very well. For example, the symbolic system includes the alphabetic principle and phonological awareness, all of which represent what is taught when learners in the FP start to learn to read. It is a system with processes that must be followed and processes that need instruction.

Figure 3.5

Schoolwide Model of Reading



Source: Zins and Ponti (1990)

The schoolwide model of reading is depicted in Figure 4.5 above. Then, on the other hand, the question arises of whether the school's organisational system is similar to the system in the special schools in Gauteng. The effectiveness of organisational systems depends on how the organisation focuses on its goals (Lisbona et al., 2020), meaning each school has its own special way of organising reading, which may not be the same way reading is done in special schools in Gauteng. The interviews with the school principals were meant to find out how schools, as organisations, prioritise the teaching of reading in the FP.

3.2.5.1 *Rationale for Choosing the Schoolwide Framework*

The model was relevant to the study for several reasons. First, Zins and Ponti's schoolwide model (1990) aims to improve the reading of at-risk learners. This study also aimed to improve the reading of learners with mild intellectual developmental disorders through the integration of the symbolic and organisational systems in the FP in special schools in Gauteng. Second, the model links two complex systems together for effective reading instruction. This is also similar to systems influencing reading in the special schools in Gauteng. Each school is run as an organisation, and the five areas of reading in the model are also the focus areas for FP reading. Third, the model is simple but effective in illustrating factors influencing reading instructional and interventional practices in a school setting. The model, as a conceptual framework, also illustrates the various aspects of the study that should be investigated: the contextual factors that influence the reading instructional and interventional practices employed by the teachers in these special schools and how they are linked.

What also makes this model relevant to the study is its goal to make all children read at grade level by the end of third grade. The FP in this study is grade R to grade three; Zins and Ponti (1990) also addressed a similar issue in the FP with their research. They postulated that acquiring the foundational reading skills successfully (Symbolic System) depends on interacting with the Organisational System (the host environment) of classrooms and schools, which involves professionals, policies, programmes, and practices that interact in complex ways. On the other hand, if the hosts' environments cannot support the needs of a reading programme, they are doomed to fail.

However, Van der Mescht (2018) argues that although the principal of a school plays an important organisational role in influencing the ability of the teacher to teach successfully, it is the teacher who plays the most crucial role in enabling learners to read. The teacher should be skilled and experienced to provide structured lessons, know appropriate methods, be able to plan, teach and assess learners and give feedback (De Stefano et al., 2012). Again, the national reading strategy (DoE, 2008) asserts that the reading teacher must have a strong knowledge of multiple teaching methods and a deep understanding of the learners. Moats (1999) once said that teaching reading is a job for an expert.

Therefore, FP reading demands the services of a teacher who has knowledge and understanding of reading and is an expert who can plan for different levels of instruction and monitor progress to determine if children are learning enough. Hence, this mixed methods research study aims to explore the teaching of reading in special schools from a teacher's perspective. As a result, mixed methods convergent design was used to gather data from a teacher survey and reading records to determine reading progress and teacher and principal interview schedules to investigate factors likely to influence instructional and interventional practices in the special school classroom.

The learners' reading achievement can depict the successes and failures of a reading programme, their ability to read, or their struggle to read (Kaminiski, 2021). This is true for any school, and as a result, the model was adopted and refined as a conceptual framework to learn from teachers, principals, and academic records how the two complex systems work for reading in the FP in special schools in Gauteng.

When the schoolwide reading model (Zins & Ponti, 1990) is further amplified in the conceptual framework, it again shows how the two systems interlink to influence reading in the classroom. There is the curriculum, which must be taught as foundational reading skills, which is the symbolic system, and the school's influence as the organisational system or contextual factors. For example, in their organisational structures, special schools have the principal, deputy principals, department head, reading specialist, and the reading teacher as the professionals to spearhead reading in the FP. In South Africa, the school principal has to spearhead reading instruction (DoE, 2008).

3.2.5.2 Justification for Choosing the Schoolwide Framework

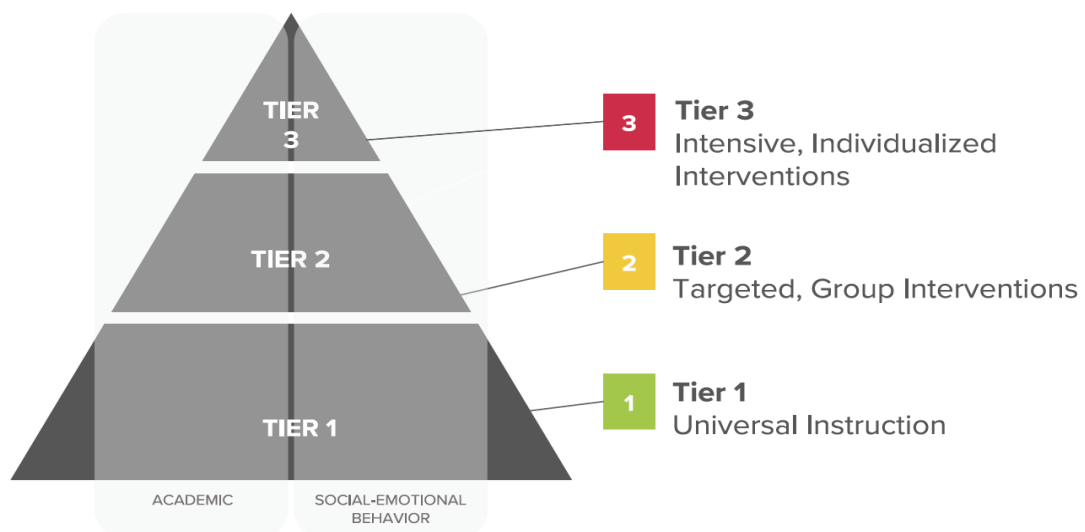
As indicated, the schoolwide model was adopted for the above reasons and integrated with other concepts highlighted in the literature to create a conceptual framework for the study. This choice was made because the two complex systems in the schoolwide model resemble those in any school, making the framework relevant, simple, and adaptable to the study.

3.2.6 The Multi-Tiered System of Supports (MTSS)

The MTSS, as depicted in Figure 4.6, is a proactive, preventative framework that integrates data and instruction to maximise learner success, focusing on academic, behavioural, social-emotional, and attendance needs (Hoover, 2018). Reading can be described as a framework for schools to provide comprehensive, data-driven support to all learners, especially those struggling with reading, through a tiered system of targeted instruction and intervention (Vaughn & Fletcher, 2012). The MTSS was incorporated into the conceptual framework as it focuses on the whole child and all learners, especially those in need, such as the learners with MIDDs in this study. The MTSS recognises that academic success is intertwined with social-emotional well-being and behaviour, so it addresses all those areas as illustrated in Figure 3.6.

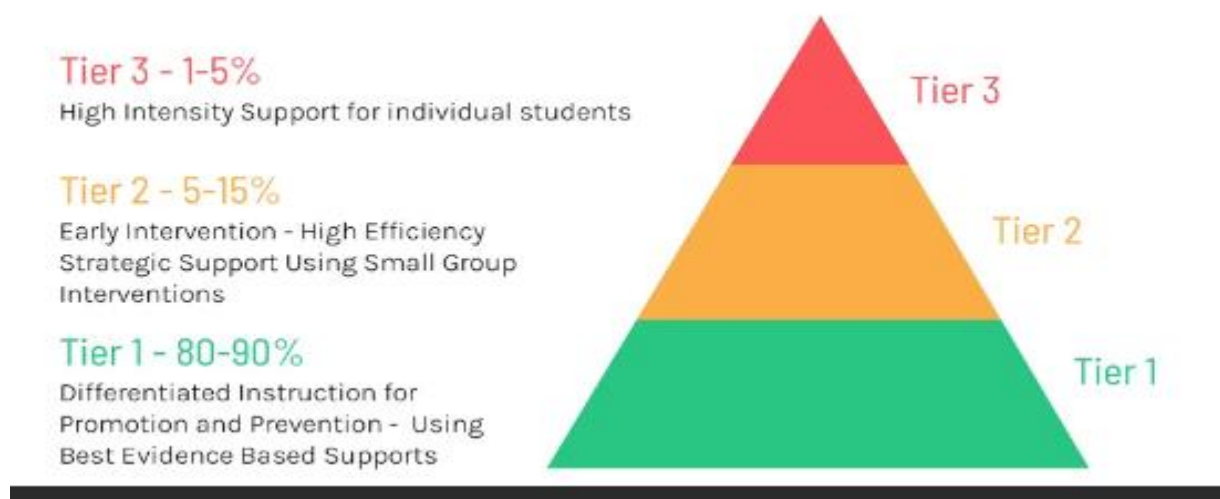
Figure 3.6

Principles of the MTSS



The MTSS uses a tiered approach to support learners, with Tier 1 providing high-quality universal instruction to all learners (Wanzek et al., 2018). In reading, this would mean teaching the whole class the same reading skill, which should meet the needs of at least 80% of the learners receiving it, as illustrated in Figure 4.7. Tier 2 is for targeted small-group interventions for learners who might need additional support, which is about 5-15% of the learners (Vaughn & Fletcher, 2012). In Tier 3, as shown in Figure 3.7, learners who require intensive support (less than 5%) receive individualised, intensive reading intervention, often in a specialised setting (Fuchs & Fuchs, 2006).

Figure 3.7
Instruction and Number of Learners and Intervention



The key component of the MTSS for reading is data-driven decision-making (Hoover, 2018). Learner progress is regularly monitored and used to inform instruction and intervention (Fuchs & Fuchs, 2006). Reading instruction and reading intervention are also grounded in research-based practices and strategies (Wanzek et al., 2018). Further, it emphasises collaboration and communication; teachers, parents, and other stakeholders work together to support learner's learning and progress

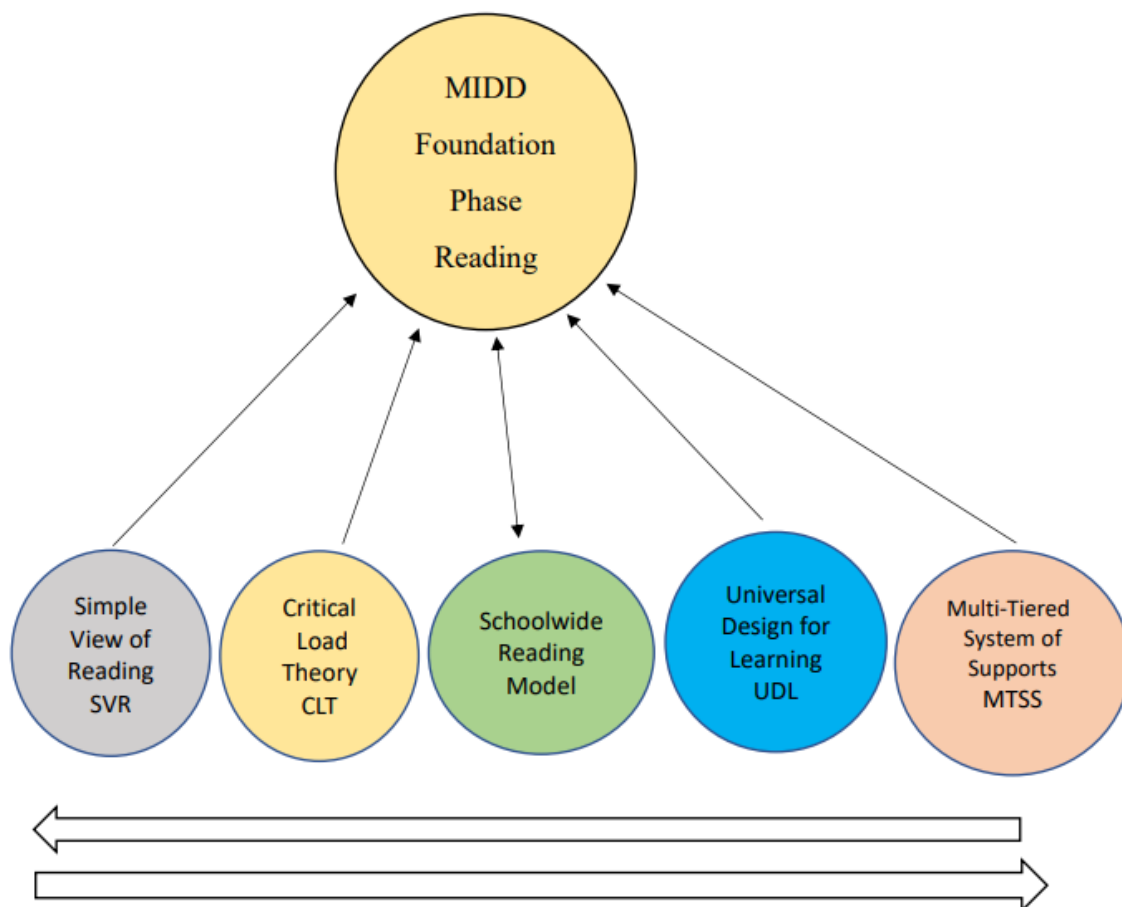
3.3 INTEGRATION OF KEY THEORIES

The study proposes a conceptual framework that is based on the schoolwide model and incorporates the SVR, phonological awareness theory, UDL, CLT, and MTSS theories to support reading instruction and intervention in special schools as illustrated

by Figure 3.8. The conceptual framework integrates the five theories to provide a comprehensive and cohesive approach to support reading instruction and intervention for learners struggling with reading in special schools. The framework, therefore, comprises five interconnected components: the schoolwide model, SVR, CLT, UDL, and MTSS.

Figure 3.8

Theoretical Integration



3.3.1 Integration and Application to the Study

The integration of these five theories (the schoolwide model, SVR, CLT, UDL, and MTSS), provides a well-connected framework for teaching reading to learners with MIDDs in special schools in Gauteng. The rationale for this integration is that the schoolwide model provides a comprehensive framework for organising and delivering reading instruction and intervention. The simple view of reading offers a theoretical

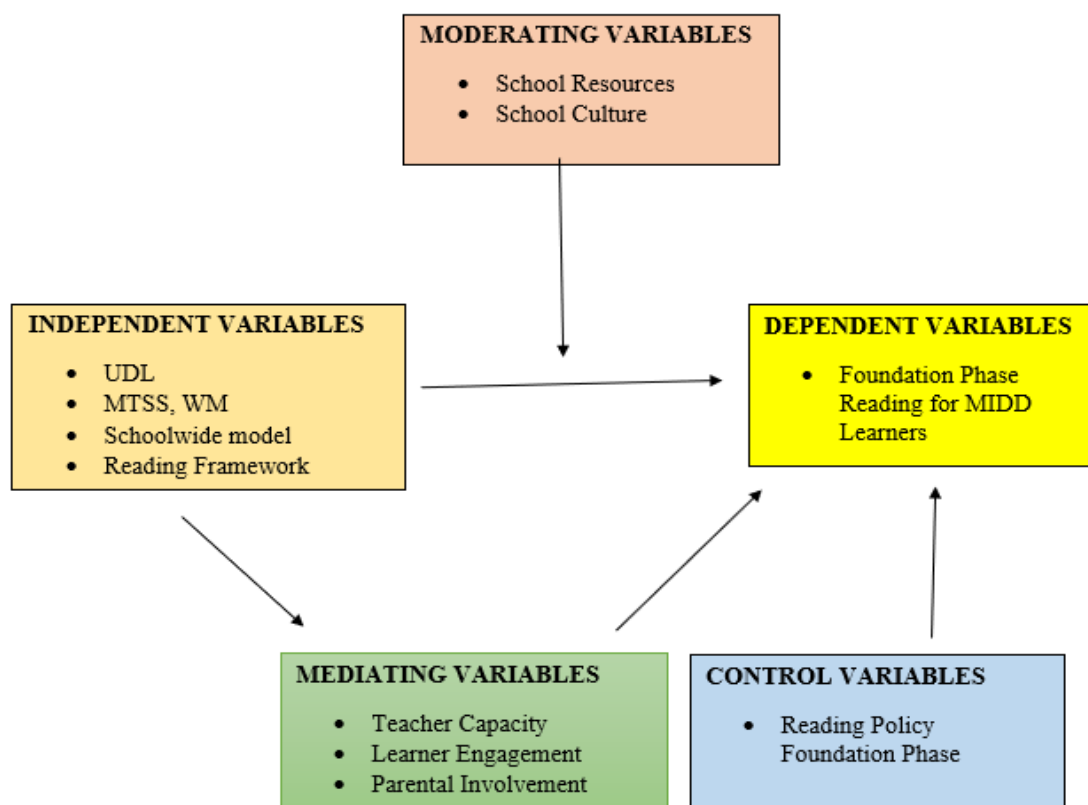
foundation for understanding the components of reading, including decoding and language comprehension. The UDL framework provides a structured approach to designing instructional material and methods that are accessible and engaging for all learners, and this includes Learners with MIDDs in this study. Cognitive Load Theory provides insights into optimising learning to read by managing cognitive load, whilst the MTSS theory offers a structured approach to providing tiered support to the FP learners with mild intellectual developmental disorders discussed in this study.

3.3.2 Conceptual Framework

This section presents the conceptual framework for the study, as shown in Figure 3.9. The framework is grounded in the intersection of several key theories, including the schoolwide model, SVR, CLT, UDL, and MTSS theories.

Figure 3.9

Model of Conceptual Framework for Special School Foundation Phase



3.3.2.1 Rationale for the Integration

This integrated framework, as shown in Figure 3.9, provides an understanding of the complex relationships between reading instruction, learner needs, and cognitive processes. The simple view of reading informs the development of reading instruction and intervention for learners with mild intellectual developmental disorders by highlighting the importance of decoding and language comprehension, as mentioned earlier. The phonological awareness theory stresses phonological awareness's importance to learners struggling with reading. In addition, the cognitive load theory guides the design of reading instruction and intervention by emphasising the need to manage cognitive load and promote learning for MIDD learners. Further, the multi-tiered system of supports framework ensures a structured approach to delivering tiered support to these learners, including universal reading instruction, supplemental reading intervention, and intensive intervention.

The conceptual framework has several implications for practice. First, it highlights the need for special schools in Gauteng to adopt a comprehensive approach to supporting reading instruction and intervention. Second, it emphasises the importance of providing explicit and systematic reading instruction that addresses the components of basic reading skills, which are “phonological awareness, phonics, fluency, vocabulary, and comprehension” (NRP, 2000, p. 1), as emphasised by the simple view model of reading, the schoolwide model, and the phonological awareness theories. Finally, the conceptual framework underscores the need for special schools to deliver tiered support to learners struggling to read through effective universal reading instruction first, then support learners in need through supplementary intervention and intensive intervention.

3.3.3 Assumption and Limitations of the Conceptual Framework

The framework was grounded in the following assumption:

- Learning to read in the Foundation Phase is a complex process that involves decoding and cognitive processes.
- Foundation Phase learners in special schools have diverse needs and abilities that must be considered when designing instructional material and methods.

- Instructional material should be designed in a way that minimises cognitive overload.

3.3.4 Limitations of the Conceptual Framework

- The conceptual framework was limited by language where the findings did not apply to learners with diverse backgrounds.

3.4 CHAPTER SUMMARY

The conceptual framework for this study integrated several theories, including the schoolwide model, simple view of reading, phonological awareness theory, cognitive load theory, and multi-tiered system of supports to support reading instruction and intervention in special schools. The framework was justified by the need for a structured approach to address the diverse needs in the reading of FP learners in special schools in Gauteng and is supported by research evidence.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

This study explored the practices of teaching reading to FP learners with mild intellectual developmental disorders in special schools in Gauteng. Mixed methods research was used to investigate this phenomenon in special schools. This chapter explores the research methodology employed for the study. The chapter starts by putting the study into context, followed by a discussion of the research paradigms and the methodological paradigm. Next, the research design (convergent parallel mixed-methods design) is presented. Subsequently, the selection of respondents and participants for the study is explained, leading to the description of data sources and a discussion of the data collection process, data analysis and interpretation. Finally, this chapter concludes with a discussion of the quality criteria and ethical considerations followed in the study.

4.1.1 Research Context

This study was carried out in special schools in Gauteng Province in South Africa, as shown in Figures 4.1 and 4.2 below. Gauteng Province, as also shown in Figure 4.2, covers the metropolitan cities of Johannesburg and Pretoria, which are melting pots of languages, with Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho, Setswana, siSwati, Tshivenda, and Xitsonga as well as many other foreign languages. This linguistic diversity in the reading classroom presents opportunities and challenges that need to be considered in the teaching of reading to FP learners in special schools in Gauteng.

Figure 4.1
Map of Gauteng Province in South Africa



Figure 4.2

Map of the major Cities of Gauteng - Pretoria and Johannesburg



The goal of this study was to explore the nature and effectiveness of reading instructional and intervention practices utilised by special school teachers of Gauteng to teach FP learners with mild intellectual developmental disorders to learn to read. In South Africa, the special schools are the referral centres for learners with special educational needs who struggle with mainstream schoolwork (DBE, 2014b). These schools were established to provide these learners with specialised support to enable them to overcome barriers to learning (DoE, 2001). Gauteng Province has 124 such schools, and 34 of them are schools for learners with mild intellectual developmental disorders (DBE, 2020). There is a paucity of research reported in the literature on the progress these learners make in reading when placed in these schools for specialised support. One of the study's objectives was to determine MIDD learners' progress in developing foundational reading skills once placed in special schools.

4.2 RESEARCH PARADIGM

A research paradigm is defined by Creswell (2014) as a philosophical orientation that guides the research process. According to Sefhedi (2019), different scholars understand the term paradigm differently. As such, different paradigms (positivism, interpretivism, critical theory, pragmatism, postmodernism, constructivism, realism, phenomenology) inform research in education (Ferreira, 2012). This study is grounded in the philosophical framework of pragmatism, which emphasises the importance of

practicality, utility, and experiential learning (Creswell, 2014; Mertens, 2010). Additionally, ontology, epistemology, methodology, and axiology are key components of a research paradigm, meaning they are informed by the research paradigm (Creswell, 2014).

4.2.1 Epistemological Paradigm: Pragmatism

This paradigm was particularly suitable for this study, which aimed at exploring the teaching practices employed for learners with mild intellectual disabilities in special schools. The value of pragmatism in research lies in the possibility of mixing quantitative and qualitative research approaches in the same study. For this study, it was possible to combine quantitative and qualitative methods to understand the research topic comprehensively. Methods are the techniques or procedures (Crotty, 2020), or individual tools, and behaviour that were used to collect information for teachers (Combes & George, 2023). Research methodology, as explained by (Cohen et al., 2018), is how we find out about a phenomenon; the approach, principles underpinning the study, justification, the procedures followed, sampling, instrumentation, data collection, data analysis, the validity and reliability of the research. For this study, mixed methods suited this research as pragmatism allow for a combination of quantitative and qualitative approaches.

Pragmatism's emphasis on practicality and utility aligns with the research topic, as this study seeks to understand the effectiveness of instructional and interventional reading practices employed with FP learners with mild intellectual developmental disorders in special schools. This study's focus on experiential learning also resonates with pragmatism as it acknowledges the importance of learners' experiences and interactions with their environment in mastering basic reading skills (Creswell, 2014). Furthermore, pragmatism's commitment to experimentation and observation aligns with the study's mixed methods approach, which combines quantitative and qualitative methods to understand FP reading in special schools fully.

4.2.1.1 Epistemological Assumptions

Epistemology is conventionally considered the theory of knowledge (Main, 2023) and is regarded as the branch of philosophy investigating human knowledge's origin, nature, methods, and limits (Main, 2023). Again, it is the study of systematic, reliable

knowledge and how it is generated (Farrow et al., 2020). Scholars inform us that there are two schools of thought in epistemology: rationalism and empiricism (Main, 2023).

Epistemology also emphasises “the nature and origins of knowing and the construction of that knowledge” (Morehouse & Maykut, 2002, p. 13). Additionally, “it delves into the intricate relationship between the mind and reality, exploring how we acquire, justify, and understand our beliefs about the world around us” (Main, 2023, p. 1). For example, how we acquire, understand, and justify our claims about how learners learn to read in the FP in special schools in Gauteng. More importantly, this should involve “examining how knowledge is constructed and validated through the lens of a theory of truth” (Main, 2023, p. 6). Therefore, epistemology, as a cornerstone of philosophical inquiry (Main, 2023), must be considered when choosing a research methodology. An epistemological position is classified as objective if the researcher believes knowledge is regulated by natural rules. In contrast, it is viewed as subjective if the researcher believes knowledge is something humans interpret. As a result, the study aimed to produce a more informed and complex construction of knowledge, with the researcher’s subjectivity dominating. Epistemology can also be the philosophy behind knowledge (Crotty, 2020). The philosophy behind this study is pragmatism. Pragmatism takes the epistemological stance that knowledge is both subjective and objective. Further, knowledge is based on an individual’s experiences, and each person’s knowledge is unique. In agreement, Goles and Hirschheim (2000) posit that acquiring knowledge is a continuum, rather than two opposing and mutually exclusive poles of either objectivity or subjectivity. As a result, the study accepts that either or both observable phenomena and subjective meanings can provide acceptable knowledge, dependent upon the research question (Al-Ababneh, 2020).

Moreover, the study acknowledges the constructivist framework, which posits that knowledge is constructed through social interaction and collaboration between teachers, learners, and the broader educational community (Vygotsky, 1978). This perspective emphasises the importance of conceptualising reading instruction within the learner’s lived experiences, interests, and prior knowledge. Again, it acknowledges the critical role of teachers as facilitators and co-constructors of knowledge, rather than mere transmitters of information (Vygotsky, 1978).

Furthermore, the study adopted a critical realist perspective, which acknowledges that structural and power-related factors can influence the learning process and the experiences of learners with intellectual developmental disorders (Braskar, 2013). This perspective recognizes that the education system and societal attitudes can create barriers to learning and inclusion and that these barriers must be addressed to create a more equitable and inclusive learning environment. In the context of this study, barriers already exist as intellectual disorders affect the way special school learners read.

Epistemologically, the study sought knowledge about the instructional and intervention practices employed with learners with mild intellectual developmental disorders and further gained more knowledge on how such learners respond to tailored reading instruction and intervention to acquire foundational reading skills. As a result, data was collected using different methods, which the researcher believed best worked to answer this question (Creswell & Clark, 2018).

Resultantly, the intersection of the ontological and epistemological perspectives discussed in this section informed the methodological approach of this study. By embracing the mixed methods convergent parallel design, the study sought to capture the complexities and nuances of teaching reading to learners with MIDD in the FP. Objective data from surveys, reading assessments, direct observations, and subjective data from multi-level interviews were collected in the multiple case studies to complement each other, in order to illuminate the practices, challenges, and opportunities that shape reading instruction and interventions for Learners with MIDDs in special schools in Gauteng.

4.2.1.2 *Ontological Assumptions*

Philosophy aims to seek new knowledge to solve everyday problems, and this knowledge is gained through research. Blakeley and Felguerasa (2023) explained that philosophy is a field of study that seeks to answer challenging questions about life problems, the universe, ethics, and art. Ontology and epistemology are two branches of philosophy which seek to answer questions about knowledge and existence. They also tell us that science uses ontology and epistemology questions when framing research objectives and exploring the universe. Ontology is what exists in the human world that we can acquire knowledge about (Moon & Blackman, 2014).

Ontology is defined by Farrow et al (2020) as “the study of being”. As explained by Kaushik and Walsh (2019), it is the nature of reality, the core characteristics, the origin, and what can be observed. As corroborated by Moon and Blackman (2017), ontology helps researchers to recognise how certain they can be about the nature and existence of what they are researching (Farrow et al., 2020) through the “truth claims” being made. Ontology can be further classified as native realism, structured realism, critical realism, and relativist realism. As further clarified by Moon and Blackman (2014), native realism is understood through using appropriate methods such as culture and morals, structured realism describes reality through scientific theory, under critical realism reality is captured by broad critical examination, and in relativism reality exists in multiple intangible mental constructions. The reality of reading issues pertaining to learners with intellectual developmental disorders in special schools in Gauteng, as discussed in this study, is amplified through relativism.

This study is grounded in a pragmatic ontology (Moon & Blackman, 2014), which assumes that reality is complex, multifaceted, and shaped by the interaction and experiences of individuals and groups (Morgan et al., 2011). In teaching reading to learners with a mild intellectual developmental disorder in special schools in Gauteng, this ontology recognises that various factors influence the learning to read process. These factors include the learner’s cognitive and emotional abilities, the teacher’s instructional strategies, and the social and cultural context of the reading classroom. In addition, this ontological perspective acknowledges that learners with intellectual developmental disorders possess unique strengths and challenges that influence their reading development (Browder et al., 2012). As such, this ontology also recognises the inherent value and dignity of the FP learners with MIDD placed in special schools in Gauteng, emphasising the need for tailored reading instruction and reading intervention.

The study further holds the pragmatic philosophy that reality is subjectively and objectively situated and accepts the existence of multiple realities. As explained by Moon and Blackman (2017), relativist ontology is based on the premise that reality is constructed in the human mind and that no single reality exists. As such, reality is relative and multiple according to how individuals experience it at any given time and place. In this light, reading issues in special schools in Gauteng are likely to differ in each school. In the world the researcher investigates, teachers exist who teach

learners to read, and FP learners with a mild intellectual developmental disorder are placed in special schools to learn to read. The researcher's investigation of this world is manifested in the use of mixed-methods research and techniques of the convergent parallel design, such as surveys, interviews, direct observation, and documents, to collect participant data.

Thus, this study's ontological assumptions were based on a relativist perspective, which recognises that reality is complex and multifaceted (Crotty, 1998). This perspective acknowledges that the experiences of FP teachers in special schools in Gauteng are unique, and context based.

4.2.2 Methodological Paradigm: Pragmatism

Taking the ontological and epistemological stances together as discussed above, the study relied on pragmatism as the paradigm to underpin the mixed methods research. Pragmatism, as earlier mentioned, is widely considered by scholars as the best worldview to provide a foundation for mixed methods research (Tashakkori & Teddlie, 2010). Creswell and Clark (2018) tell us that pragmatism is not committed to any system of philosophy, reality or method, but embraces both qualitative and quantitative aspects in the same study. In agreement with Creswell and Clark (2018), pragmatism made it possible for the researcher to use multiple methods, different assumptions, and different forms of data collection and analysis. There was latitude during data collection to use whatever method suited the situation in some particular sites. There were some instances when teachers did not want to be recorded, and their responses had to be captured in writing.

The goal of this inquiry was to explore the nature and efficacy of instructional and interventional practices employed by FP teachers in Gauteng when teaching reading to learners with mild intellectual developmental disorders and the extent to which the learners master the foundational reading skills. A mixed-methods multiple case study was considered to achieve this.

The sections to follow will discuss the research approach, research design, selection of research sites and participants, data generation and documentation, as well as data analysis and data interpretation used to carry out the study.

4.2.3 Methodological Approach: Mixed Methods

The ontological and epistemological stance raised above, the problem statement, research objectives and the purpose of the study, deserved a mixed-methods inquiry approach to this study. Mixed methods research is described by Creswell (2018) as a methodological approach that involves collecting, analysing, and integrating quantitative and qualitative data in a single study. It has several philosophical foundations (Cohen et al., 2018), and for this study, it is rooted in pragmatism. There was a need in this research to collect both quantitative and qualitative data together, analyse separately, and merge the results to answer fully the FP reading issues in special schools, as raised in the research questions.

The advantage of using the mixed method approach is that it provides a more complete picture of the phenomenon than a single quantitative or qualitative research project would do (Denscombe, 2014, as cited in Cohen et al., 2018, p. 33). This was seen in this study. It was rightly assumed in this research that mixing the data would lead to a complete understanding of the nature and efficacy of reading instructional and interventional practices employed with learners with mild intellectual disorders in special schools. Again, as pointed out by Morgan et al. (2011), mixed methods allowed methodological pluralism, which enabled probing and triangulation, and as a result, it was possible to identify and correct some errors. Further, combining numeric and narrative data helped to answer the research questions convincingly.

Furthermore, it is claimed that mixed methods research has an added advantage in that it recognises and exploits similarities between philosophies and epistemologies in both quantitative and qualitative research rather than seeing the difference between the two (Brannen, 2005, as cited in Cohen et al., 2018, p. 35). Both are said to complement each other, use observable data, concern corroboration and elaboration, and both describe data.

4.3 RESEARCH DESIGN: CONVERGENT PARALLEL MIXED METHODS

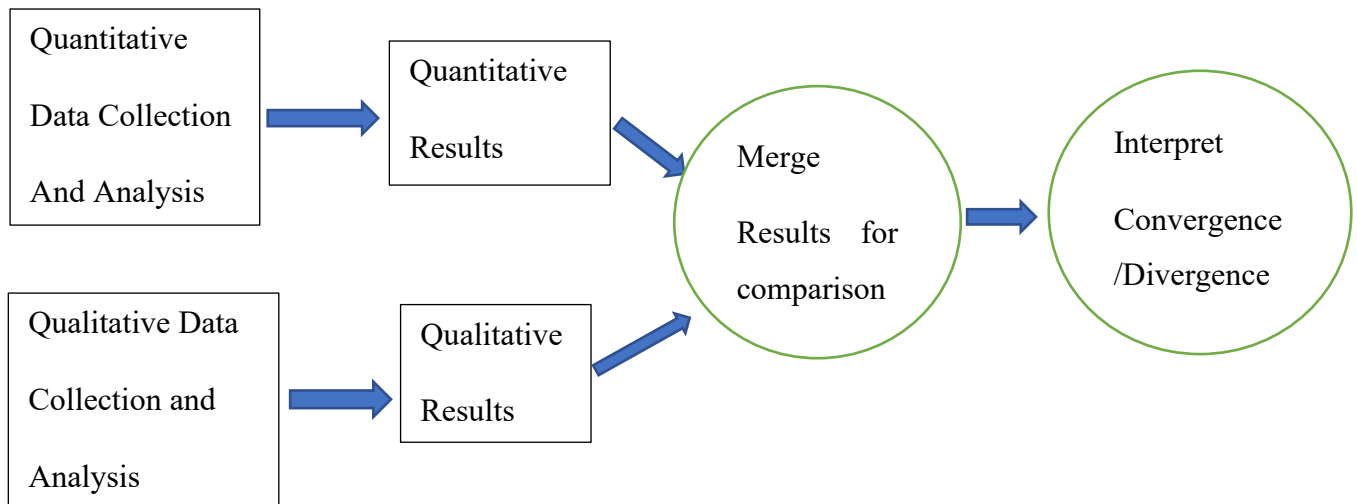
The study used convergent parallel mixed methods design (Creswell & Creswell, 2018). The purpose of a convergent (parallel or concurrent) mixed-methods design was to simultaneously collect both qualitative and quantitative data, merge the data, and use the results to understand the research problem (Creswell, 2015). The rationale for choosing this design was that one data collection form would supply

strength to offset the weaknesses of the other form (Creswell & Plano Clark, 2018), as well as achieving convergence, triangulation, and the convenience of collecting different data at the same time with same population thus saving time and money (Doyle et al; 2015).

In this study both qualitative and quantitative data was collected at the same time, and given equal weighting, but remained separate and only merged in the interpretation phase as illustrated in Figure 4.3 below. The reason for collecting both quantitative and qualitative data was to converge the two forms of data and to bring greater insight and information about the influence of reading instructional and interventional practices on learners' acquisition of foundational reading skills in special schools in Gauteng. Using a mixed- methods approach, to combine quantitative and qualitative data, provided a more comprehensive understanding of the research topic (Creswell & Plano Clark, 2018). As pointed out by Miles and Huberman (1994), this approach allows for triangulation, where quantitative and qualitative data validate and corroborate each other increasing confidence in findings. By capturing both numerical trends and contextual insights, the researcher gained a richer understanding (Tashakkori & Teddlie, 2003) of FP reading in special schools. Again, as noted by Johnson and Onwuegbuzie (2004), mixed-methods research offered flexibility and adaptability, enabling the researcher to adjust the methods as needed. It was more convenient to work with participants to observe the classroom, complete the questionnaire for the survey, request reading records, and interview some teachers at the same time. All concerns were quickly addressed, and where participants needed clarification, this was done in a timely manner. There were also some instances where reading teachers requested some ideas about teaching reading, and this was done. Figure 4.3 shows the convergent design that was employed for the study, which allows both quantitative and qualitative data to be collected at the same time.

Figure 4.3

Convergent Design



Source: Adapted from Creswell (2015)

4.3.1 Research Sites (Multiple Sites)

The sites selected were special schools in Gauteng for learners with mild intellectual developmental disorders. There are 124 special schools in Gauteng, and 34 of these are MIDD schools. The study only concentrated on learners in the FP (also called the Orientation or Preparatory Phase in special schools) in MIDD special schools. As a result, the teacher questionnaire, the interviews, reading sites, observations, and document analysis were all about FP reading in MIDD schools of Gauteng.

4.3.2 Selection of Respondents/Participants

Purposive sampling was used to identify 34 MIDD special schools from the 124 special schools in Gauteng that were mentioned in the introduction. Two respondents, in the FP per school were considered for the survey questionnaire. As pointed out in the introduction, the FP in special schools does not have ECD classes nor grades 1-3 as in mainstream schools. The FP comprises two levels, Orientation 1, which is the first year when a learner is placed in a special school and Orientation 2, which is a second year when the learner exits the FP in special schools. It was assumed that there were at least two streams in the FP in each of the 34 schools. A sample size of 2 participants was deemed adequate for the survey and making a total sample of 68 was considered as representative for the study. The following criteria were applied:

- Participants were actively involved in FP reading.
- They were teaching reading to learners with mild intellectual developmental disorders.
- They were FP teachers at an MIDD special school in Gauteng.

To ensure a representative sample a randomizer was utilised to select 15 sites out of the 34 special schools for FP class teacher interviews. This sampling approach helped minimise bias and ensured that the selected sites were representative of the special schools. With a sample size of 15 sites, the study achieved a substantial representation of approximately 44% of the total number of MIDD schools in Gauteng. This sample size was considered large enough to provide reliable insights into the perspectives and experiences of FP class teachers in special schools. Further, from the 15 selected ten schools were conveniently selected for the semi-structured interview with one specialist teacher in reading, principal or departmental head (DH) at each site. In addition, purposive sampling was considered most appropriate for selecting knowledgeable participants from the teachers, principal, or DH. The researcher did not interact with learners or interfere with the selected sites' day-to-day activities. Table 4.1 provides the details of the respondents and participants who participated in this study as separate target groups.

Table 4.1
Summary of Respondents/Participants

Data Source	Responses	Respondents/Participants	Inclusion
Survey	68	• Foundation Phase teachers of Gauteng teaching MIDD learners.	Teaching reading
Interview	15	• Reading teachers teaching MIDD learners to read	FP Teachers. Knowledge in reading

Interview	10	• Heading special schools or Department Heads of the Foundation Phase	Principal/ Departmental Head Foundation Phase

4.4 DATA SOURCES FOR THE STUDY

In this research project, data was collected from both qualitative and quantitative primary and secondary data sources to address key research questions and the research problem.

4.4.1 Primary Sources

The FP teachers and learners in special schools in Gauteng were the main primary data sources for the study, and the following instruments were used to collect the data:

- Interviews with teachers (qualitative data)
- Research setting: direct observation of reading classrooms (qualitative)
- Interviews with school principals/departmental heads (qualitative data)
- Survey questionnaire for teachers (quantitative data, closed-ended questions/qualitative data, open-ended questions)

For the interview and observation of the reading room as well as document analysis, both purposive and convenience sampling were used. For example, at one of the sites, the school's deputy principal was also a reading specialist. In that case, getting responses from the specialist first was more important, and convenience sampling was used. In each of the 15 education districts of Gauteng, one school was randomly selected for teacher interview, principal interview, classroom observation and data analysis.

4.4.2 Secondary Data Sources

- Internal assessment records for reading (qualitative data).
- Reading statistics (Quantitative).
- Education Policies on reading. (Qualitative data)

4.4.3 Data Collection Techniques

According to Creswell (2018), qualitative and quantitative data can be collected concurrently or sequentially, and in this convergent parallel mixed methods research, it was collected concurrently. Permission to collect data from special schools was sought first from the GDE and school authorities. School teachers were similarly allowed to give consent. All the information gathered from teachers and learners will remain confidential.

4.4.3.1 Interviews

The researcher used structured interviews with FP teachers and semi-structured interviews with school principals to collect data for the study from special schools. Johnson and Christian (2012) describe interviews as collecting data directly, which can be done individually or as focus groups (Creswell, 2014). For this study, individual participants were interviewed. Interviews can be a powerful tool for exploring meaning, understanding, and interpretations rather than collecting facts (Staller, 2012). This study aimed to seek the teacher's knowledge and understanding of reading instructional and interventional practices beneficial to learners with a mild intellectual developmental disorder. Face-to-face structured interviews were carried out with FP teachers, whilst face-to-face, one-on-one semi-structured interviews were carried out with school principals or departmental heads. Face-to-face interviews were preferred since they allowed the researcher to find and explore new evidence effectively (Creswell, 2017). Both interviews were carried out in English at the selected sites in participants' classrooms either before school, break time or after school to avoid disrupting teaching and learning. Open-ended and closed-ended questions were used. All interviews were audio recorded and transcribed using Flexier online transcribing software.

4.4.3.1.1 Face- to- Face, One-On-One Structured Interviews

Using the interview schedule, the researcher interviewed FP teachers at selected sites in the classrooms at the scheduled times. The interviews took about 30 minutes.

This type of interview follows a fixed structure, consisting of specific questions which are asked in a particular order (Creswell, 2015). This approach ensures consistency and conformity (Cohen et al., 2018). A total of 12 of the proposed 15 interviews were successfully conducted. The other three participants preferred completing the

schedule by answering the interview questions on paper. The purpose of the interviews was to explore the teachers' knowledge and understanding of instructional and intervention practices that they employ with learners with a mild intellectual developmental disorder and gain interpretational feedback on how this benefited the learners. The data gathered from these interviews complemented data from reading sites observations, and records for reading. Together, the data was used to answer the research questions, which sought to find out how learners with a mild intellectual disability were benefiting from the instructional and interventional practices employed by teachers in the FP of special schools.

The researcher carried out the interviews and all the recordings, and the same procedures were followed on each site. Besides recording, the researcher also made field notes on all the questions asked and answers given. These interviews took about 30 minutes each, and it took the researcher 18 days to cover all the sites. At the end of each interview the researcher sought permission to observe the physical reading environment and requested reading records of learners. These records obtained were either hard copies, photocopied or photos taken. The interview schedule used, and recordings made are attached as appendices.

4.4.3.1.2 Semi-Structured Interviews

Merriam and Tisdell (2017) inform us that semi-structured interviews are another way of gathering data to understand participants' views and beliefs through a two-way conversation between the interviewer and interviewee.

The semi-structured one-to-one interviews were carried out with special school principals with the help of an interview guide that was designed by the researcher and was mainly comprised of open-ended questions to elicit the principals' knowledge and understanding of reading in the FP, the role they play, how the schools promote reading and their views on how the reading is benefiting learners with a mild intellectual disability. The interviews also allowed the interviewer to probe the interviewee on a wide range of issues on FP reading in the school, such as reading policies, challenges, possible solutions and the interviewee's interpretation of MIDD learners' success in FP reading. The data collected from the school principal was compared with quantitative data from the survey questionnaire and reading records, and qualitative data from teacher interviews.

In total, ten interviews were conducted with school principals in special schools in Gauteng. All interviews were conducted in participants' offices as per schedule. All interviews were recorded in English using a voice recorder and took about 30 minutes each. Before the interview, consent to record the interview was first sought, and a consent form was signed by the participant.

Face-to-face interviews on the sites with FP teachers and the principal or FP departmental head were conducted by the researcher using a voice recorder and assisted by the core researcher. The interview schedules were designed to contain both open-ended and closed-ended questions. Closed questions were designed to collect specific data on teachers' knowledge of interventional and instructional practices, teachers' biography, and the impact of instruction. The open-ended questions allowed probing to dig deeper and gather more information from the participants. Copies of learners' reading records were also requested from the teachers at the end of every interview. At the same time, an observation tool was used to assess the physical reading environment using a checklist. The researcher also made field notes throughout the data collection process.

4.4.3.2 Survey

Scholars agree that a survey is another research method used for collecting data from respondents (Cohen et al., 2018; Creswell, 2017; McCombes, 2023). There are different types of surveys: online paper and pencil, mail, telephone, in-person, panel, and focus group surveys, and they can also be classified as qualitative or quantitative surveys (McCombes, 2023). According to Yaddanapudi and Yaddanapudi (2019), a qualitative survey involves open-ended questions that allow respondents to answer in their own words, whilst a quantitative survey involves structured questions with predetermined responses. The paper questionnaire used for the survey contained both open-ended and closed-ended questions. The researcher designed the questionnaire, which was validated by the research supervisor, and piloted it at a special school before it was used. After the pilot study, some minor changes were made to the questionnaire, including using the term Orientation Phase in conjunction with FP on the questionnaire to avoid any misunderstanding of the phases in special schools.

The survey was considered economical, efficient, and reliable (Yaddanapudi & Yaddanapudi, 2019) as it uses standardised questions. A lower response rate than expected and a lack of control over who responded to the questionnaire were some of the disadvantages of the survey. The survey depended on a large sample, including all identified MIDD schools, meaning that the survey targeted two FP reading teachers in each MIDD school of Gauteng. In total, 68 questionnaires were sent to 34 sites, assuming two respondents per site.

The quantitative data tool used was a self-designed survey questionnaire (Cohen et al., 2018) for FP teachers. The questionnaire used to collect the data contained both open and closed-ended questions. Open-ended questions allowed respondents to give their opinions, whilst closed-ended questions sought direct answers from the respondents, which were then analysed quantitatively. The survey questionnaire was designed to give a snapshot of how FP teachers from special schools in Gauteng were teaching reading to learners with a mild intellectual developmental disorder and find out how the learners were benefiting from instruction.

The survey questionnaire was first administered in person to 15 schools. Second, the researcher took advantage of a Gauteng special school principals' provincial meeting at one special school to distribute the questionnaire to 13 schools. The questionnaire was then completed by FP teachers and returned to the researcher in postage-prepaid envelopes. Third, the questionnaire was posted to the remaining 6 schools. A covering letter with detailed instructions and consent forms accompanied the set of survey questionnaires to each school.

During the survey, reminders were sent by phone to respondents via the school principal to increase the return rate. Although the return rate was only 82.3%, it was a great achievement for the survey and gave credibility to the study.

4.4.3.3 Classroom Observation

Observation of the reading site is another qualitative data-gathering technique employed in this study. According to Creswell (2017), observation can complement interviews to examine people's actual behaviour. In this study, the observation was undertaken at the actual site (reading classroom).

The researcher designed a checklist to collect data on learning and teaching material used for reading, the teaching strategies depicted by the reading site, and the site's suitability for learners with a mild intellectual developmental disorder.

The reading site observation, which did not include a reading lesson observation, lasted about 20 minutes, using the checklist, which the researcher and the reading teacher completed soon after the interview. The checklist is attached as Appendix D.

4.4.3.4 Document Analysis

Documents form a record of events (Gross, 2018). They provide some form of evidence or a record of what happened that can be used for both quantitative and qualitative analysis. Data that would have been obtained from documentary analysis also complements other data sources. Documents have the advantage of providing authentic data that is not influenced by the researcher nor the participants themselves (Tashakkori & Teddlie, 2010). However, they are context and purpose-biased and may not have sufficient detail to answer the research question presented (Gross, 2018).

Document analysis is gathering data by analysing and interpreting documents and records related to research (Creswell, 2017). Document analysis was quite relevant to the study, as it gave insights into the impact of reading instructional and interventional practices that the participants had cited during the interviews. Rapley and Rees (2018) caution that teachers might be good at documenting their teaching plan but lack in delivery. Therefore, class records are another way of comparing participant views during the interview and the actual performance of learners as indicated by the records.

Class records for reading assessments were collected and used as a baseline assessment to determine the acquisition of foundational reading skills. The researcher requested and collected the reading records from the teachers soon after every interview. Records covered Term 1, 2024, universal screening and Term 1 and Term 2 assessment 2024. The reading assessment records were analysed using a checklist developed by the researcher to determine what was taught, what was assessed, and how this compared with teachers' views. The quantitative data helped to determine the progress of learners with a mild intellectual developmental disorder in special schools in Gauteng, making it possible to acquire foundational reading skills during the FP of school. The findings are presented in Chapter 4.

4.4.4 Measurement of Primary Data Collection

The researcher and research supervisor thoroughly scrutinised the survey questionnaire, interview schedules, observation tool, and amendments were made before they were used. Table 4.2 provides a measurement of the primary data collected for the study. All the data was collected with consent from the participants. Before the interviews, classroom observation and collection of reading records, participants were requested to sign a consent form. Permission to enter sites was also first obtained.

4.4.4.1 Primary Data Collection Measurement

Table 4.2

Primary Data Source Management

Data source	Planned	Achieved
Teacher interview	15	15
Survey questionnaire	68	56
Site observation	15	15
Principals' interview	10	10

4.5 DATA COLLECTION PROCESS

Several factors, especially time and the cost of rolling out the study were considered during the data collection stage. According to Creswell and Creswell (2005), data collection comprises some phases: sampling procedures, permissions, types of information collected, and forms for recording, and administering the data collection. This convergent parallel design study entails that the researcher concurrently collects quantitative and qualitative data in the same phase of the research process. Table 4.3 below shows the data collection process followed for the study, as suggested by Creswell and Plano Clark (2018).

Table 4.3

Data Collection Process

Phase	Qualitative Data Collection	Quantitative Data Collection
Sampling	• Purposeful sampling • Small number of participants and sites	Adequate size to reduce sampling error. Purposive sampling
Permission	• From the Department of Education, school principals, to access sites • Individual teachers, learners, parents.	From the GDE, school principals, and School Governing Bodies.
Data Sources	• Open-ended interviews • Open-ended observation of the reading classroom. • Assessment records for reading	Questionnaire for teachers.
Recording the data	• Interview protocols • Observational protocols	Instruments with scores
Administering data collection	• Attending to field issues • Attending to ethical issues	Standard procedures for administering questionnaire. Ethical issues.

4.5.1 Data Collection Procedure

Permission to collect data from schools was sought first from the GDE and teachers. Both quantitative and qualitative data were collected from each site. A questionnaire was administered in 34 MIDD schools of Gauteng. The questionnaire was coded and sent to schools with permission from district offices. The questionnaire was then completed by FP teachers and returned to the researcher by post. Any two respondents in the FP were considered from each site.

Fifteen schools were purposefully selected for teachers' interviews, principals' and DHS' interviews, reading environment observation, and documentary analysis of reading records. The idea of reading environment observation was to investigate the teaching and learning of reading in its natural context. The natural setting is the direct data source (Muzariri et al., 2022). Ethical protocols were followed in all cases to get consent and permission to enter the sites to collect the data. The researcher also ensured the interview sites were entered with respect and in a way that the day-to-day running of the school and classes were not disrupted.

The researcher distributed the questionnaire to schools, primarily for accountability and to increase the return rate. The school principals were also requested to distribute the survey questionnaire to the FP reading teachers, who responded to the questions and returned the forms to the researcher.

For the structured interviews, 15 schools were randomly selected from each educational district of Gauteng. The researcher and core researcher had to seek permission from the principals to visit and conduct research at these sites. Entering the sites was not automatically allowed, and it took much patience as some principals took time to respond to the request.

4.6 DATA ANALYSIS

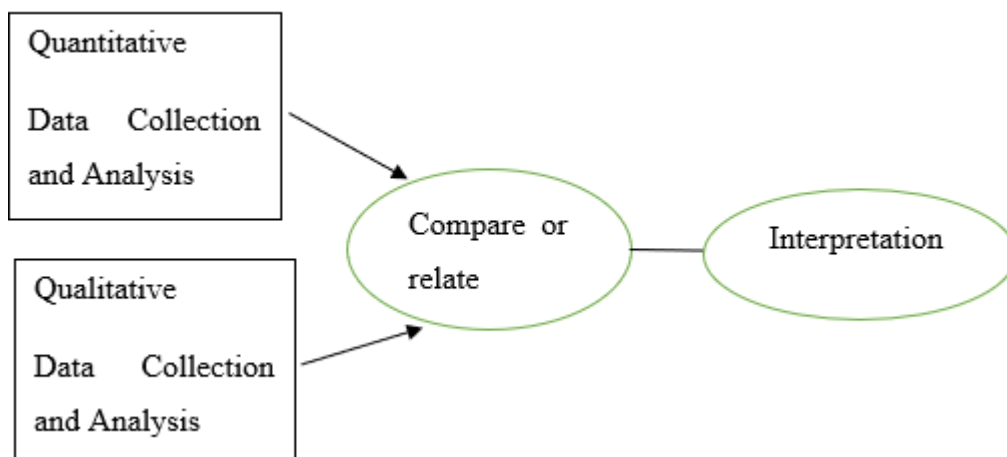
A convergent parallel mixed methods study design was used to collect, analyse, and integrate the quantitative and qualitative data in this study.

4.6.1 Mixed Analysis

Mixed analysis is the term used to analyse data in mixed methods research (Onwuegbuzie & Combs, 2011). This study used mixed methods analysis to analyse the quantitative and qualitative data. The quantitative and qualitative data collected

were first analysed separately and independently with suitable methods and only merged in the interpretation phase to integrate the data into a coherent whole for complementarity and triangulation as Creswell and Clark (2018) suggested. This implies analysing quantitative data quantitatively, and qualitative data qualitatively first, then mix the findings as illustrated IN Figure 4.4 below.

Figure 4.4
Convergent Parallel Analysis



The rationale for integrating the two data sets in this study was to obtain data triangulation and complementarity to yield strong meta-inferences. This would help us fully understand how FP learners with mild intellectual disability and their teachers cope with reading in special schools in Gauteng and generalise the findings to similar situations elsewhere in South Africa and beyond.

4.6.2 Quantitative and Qualitative Data Analysis Steps

First, quantitative and qualitative data were analysed separately and independently. Then, results were displayed side-by-side for comparison and subsequently integrated into the interpretation and discussion phase.

4.6.2.1 Qualitative Analysis

For qualitative data, thematic analysis was employed to identify crucial issues relating to teaching and learning to read with FP learners with mild intellectual developmental disorders in special schools, and how they respond to instructional practices to acquire foundational reading skills.

Thematic analysis is defined by Dawadi (2020) as a constant-comparative method that involves reading and rereading the transcripts of collected qualitative data systematically, in search of themes that can capture the narratives available in the data sets. In agreement, Caulfield (2023) sees thematic analysis as a good qualitative approach when the researcher seeks people's views, opinions, knowledge, experiences, or values from interview transcripts or survey responses. If carefully done, it can produce insightful and trustworthy findings (White & Moules, 2017). Given this, thematic analysis was employed to analyse qualitative data from teacher interviews, principal interviews, observation, and qualitative items included in the survey questionnaire.

According to Dawid (2020), there are inductive and deductive approaches to thematic analysis. The inductive approach involves allowing collected data to determine themes, and the deductive approach involves approaching the data analysis with preconceived themes (Caulfield, 2023). Relatedly, Caulfield further distinguishes between a semantic approach, which involves analysing the explicit content of data (people's opinions), and a latent approach, which involves reading into what the statements reveal about their assumptions and social context.

Thematic analysis in this study mainly followed both the deductive-semantic and inductive approaches. There were already themes that emerged from the conceptual framework and literature review that guided the analysis. However, the inductive approach was also considered, where new themes not highlighted in the conceptual framework and literature review emerged from the Riverside transcription software. There were also instances where the analyst had to read into statements given by respondents, and the latent variable approach was used. For example, where respondents expressed uncertainty on whether reading benefited learners, the response "not so sure" carried a deep meaning. In an African context, it is considered a polite no.

The thematic analysis process followed the six steps proposed by Braun and Clarke, which are: "familiarisation with data, generating first codes, searching for themes, reviewing themes, defining and naming themes, and compiling the thematic report" (Delahunt & Maguire, 2017).

First, to familiarise oneself with the data from interviews, a folder was created for each recording and copied to the computer. The folders were renamed according to the districts and schools, using letters for districts and school numbers. Recordings from the teacher interviews and principal interviews were then transcribed using Flexier, an online audio-to-text transcription software. The texts, in a tabular form and with each line of transcription numbered, were then edited, with the researcher using a headset to listen again to the discussions and comparing them with the texts. This was repeated, and then the core researcher verified the texts. Data from qualitative items in the survey questionnaire were then scrutinised. The same was done to the data from the checklist for the reading site observation. All interesting points highlighted were cross-referenced with the research questions, and a table was formulated to show the codes and initial points of interest. This was done to gain an in-depth understanding of this data, leading to coding.

Second, the data was coded, highlighting sections of the texts (phrases or sentences) with different colours on the Word document, to create shorthand labels (code) describing the content. The data was read several times (Braun & Clarke, 2006), to get the general sense of participants' views in the interviews and the respondents' views in the questionnaires. Each data unit was assigned its own code, with some data sharing similar codes. A table was also formulated to summarise the data extracts and the initial codes for the short segments of the data sets. The texts had already been numbered during transcription, and narrations were captured on the Word document. The same was done to qualitative items from the questionnaire and observation tool.

The third step was to generate themes. The main focus in this step was to analyse the broader level of themes rather than the codes (Dawid, 2020). The codes provided the building blocks to generate themes together with the conceptual framework and issues previously raised in the literature review. It was easier to sort the codes according to themes and concepts already identified in the conceptual framework and literature review than to generate themes from the codes. As explained by Braun and Clark (2006), a theme should capture something about the data in relation to the research questions, and there has to be some pattern or meaning within the data set. As a result, the analysis at this stage involved scrutinising the codes, identifying the patterns and then coming up with themes, as suggested by Creswell and Creswell (2018).

The fourth step was to review the themes so that they worked better, which involved splitting some themes and combining or discarding some themes. The main aim of this step was to refine the themes identified in Step 3 more systematically (Dawadi, 2020). This was done in two levels (Braun & Clarke, 2006). Level one involved cross-referencing coded extracts with the themes and further organising them meaningfully (Dawadi, 2020). Level two involved coding in relation to the whole data set. During the process, some themes were collapsed into one theme, and others became sub-themes.

The fifth step was about defining and naming themes involved. The analysis aimed to further refine and define what each theme was about and determine the aspects of data each theme captured (Braun & Clarke, 2006). As highlighted by Dawadi (2020), the process involves further refining the themes by rereading through all the main themes, subthemes, codes and extracts, and assigning the final name and definition to each theme to tell the final story about the data.

The sixth and last step was to interpret the themes' meaning and write a report of the findings. Braun and Clarke (2006) advise that the report of a thematic analysis must convince the readers of the merit and validity of the analysis. However, in this mixed-methods research, quantitative and qualitative findings were integrated into a single report, complementing each other. As such, this involved a written introduction to summarily highlight the research question, the aim of the research, the methodology followed, and the conclusion explaining how the analysis answered the research question.

In addition, a computer software program, Riverside, was used to code and analyse transcripts and observation notes (NYU libraries, 2021). Quantitative analysis was followed by thematic analysis of qualitative data, which was done before the write-up, in which both qualitative and quantitative findings were reported.

4.6.2.2 Quantitative Analysis

Quantitative data analysis for this study involved descriptive statistics. Eteng (2023) describes quantitative data analysis as a process of analysing data that is number-based or can easily be converted into numbers without losing any meaning. This data was initially collected through closed-ended structured interview questions and survey closed-ended questions, and then went through validation, editing and coding. The

purpose of quantitative analysis was to measure the popularity of reading instructional and interventional practices employed by the FP teachers. Again, quantitative analysis was used to assess relationships between learners' reading achievement and factors teachers perceived as influencing this achievement in special schools. The analysis first dwelt on descriptive statistics, then on inferential statistics.

Descriptive statistics focused on describing the sample of special MID schools of Gauteng, FP teachers, principals, and learners, purposefully selected for the study. In other words, descriptive statistics were used to investigate and describe datasets for the given samples, which helped to understand the details by summarising quantitative data and finding patterns, connections, and relationships from the specific data samples. For example, descriptive statistics of teachers' ages, qualifications, experience, gender, and reading scores helped infer how these factors related to reading achievement and instructional practices. The descriptive statistics were entered into the computer software SPSS for processing, and tables and graphs were used to communicate the findings.

Cross-tabulation was used to help understand FP teachers' and learners' datasets and the factors that may have influenced a particular data point. Regression analysis was used to infer the causes behind learner achievement in reading, identify trends and patterns, and predict future trends. This enabled the researcher to generalise the findings to other special schools in Gauteng for learners with a mild intellectual developmental disorder.

The quantitative data was entered into the SPSS software for processing, and findings from quantitative analysis were communicated in tables, figures, and graphs.

4.6.3 Merging Findings and Interpretation

After analysing the two data sets separately, the results were merged for comparison. There are three ways to merge data analysis (Creswell, 2014), using side-by-side comparison, data transformation, and joint display. The researcher preferred the side-by-side method to merge both datasets, which is much easier than the other two. Then, the interpretation was written into a discussion section of the research study, which includes a report comparing the results from the two databases and notes to describe whether there was convergence or divergence in the results (Creswell & Clark, 2011). Doyle et al. (2015) further explained that in this very last discussion level, inferences

drawn from qualitative and quantitative results were further integrated to develop meta-inferences. The meta-inferences provided a sense of overall findings to the study and helped answer the mixed methods research questions, whose findings are presented in Chapter 4.

4.7 RESEARCH QUALITY CRITERIA

The research quality criteria are some forms of research evaluation to ensure that the research is of good quality. There is a great need in education research for high-quality studies (Cameron, 2010) since they are beneficial in developing policies and their influence on the quality of teaching and learning.

The terms rigour in quantitative research and trustworthiness in qualitative research are used to refer to research quality criteria (Creswell, 2014). The approaches to addressing the quality of research and quality criteria can be quantitative, qualitative or mixed methods criteria, but they all address the same issue (Cameron, 2009). The table below shows how the three methods align in addressing quality in research. This study adhered to the research quality criteria of validity, reliability, objectivity, and generalisability to ensure the trustworthiness and credibility of the findings.

Table 4.4

Alignment of Quality Criteria Across Quantitative, Qualitative and Mixed Methods Research

Quantitative Criteria	Qualitative Criteria	MMR Criteria
Validity	Credibility	Truth value
Reliability	Dependability	Consistency
Replicability	Confirmability	Neutrality
Generalisability	Transferability	Applicability

Source: Cameron (2009)

This study used a mixed-methods convergent parallel design. Quantitative and qualitative data was collected simultaneously, analysed separately, and only merged in the interpretation phase. Therefore, both qualitative and quantitative quality criteria were considered in this study.

4.7.1 Quantitative Criteria (Rigour)

Andrew and Halcomb (2009) propose four quality criteria to determine the rigour of quantitative research: validity, reliability, objectivity, and generalisability. Only validity and reliability were considered for this study. On the other hand, Lincoln and Guba (1995) proposed four quality criteria of qualitative research: credibility, transferability, dependability, and conformity, to determine the trustworthiness.

4.7.1.1 Measures Taken to Ensure Validity

Validity in quantitative research confirms that no appropriate data was excluded (Fuller, 2010), and only appropriate data was included in the research, meaning the findings represent the facts (Creswell, 2014). A measuring instrument will meet this criterion if it measures what it claims to measure without any data loss (Cohen et al., 2018; Roni et al., 2020; Tashakkori & Teddlie 2010). In this study, the validity of quantitative findings was ensured through the use of a mixed-methods approach, which combines both quantitative and qualitative methods to provide a comprehensive understanding of the teaching of reading to learners with mild intellectual developmental disorders in the FP in special schools in Gauteng. The survey, the interviews with both classroom teachers and principals of special schools, observations, and documentary analysis all focused on reading in the FP in special schools. To maintain validity, the supervisor scrutinised the instruments used to ensure constant validity (Cohen et al., 2018). Sample integration, inside-out perspectives and weaknesses were considered to ensure data validity during data analysis. The researcher tried as much as possible to reduce the halo effect.

4.7.1.2 Measures Taken to Ensure Reliability

Reliability refers to the consistency and dependability of the research findings (Babbie, 2021; Creswell & Plano Clark, 2018). If an instrument is reliable, it will consistently measure the construct it targets over time (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010). In this regard, the questionnaire used for the survey was administered in the prescribed way, and the same instrument was used for the study. Thus, reliability was ensured through the use of a vigorously scrutinised questionnaire for the survey and training of core researchers to ensure consistency in data collection. The researcher worked with a core researcher to help verify, collect, analyse, interpret and validate conclusions (Zohrabi, 2013).

4.7.2 Qualitative Criteria (Trustworthiness)

Quality criteria in qualitative research are the core to establishing legitimacy for knowledge claims (Creswell, 2018). To ensure trustworthiness, the researcher must conduct each research step as rigorously as possible (Cohen et al., 2018). Trustworthiness in qualitative research implies credibility, transferability, dependability, confirmability, and authenticity (Creswell, 2015).

4.7.2.1 Measures Taken to Ensure Credibility

Credibility is described as ensuring that the researcher's reconstruction, interpretation, and representation of participant views align with the participants' point of view (Miles et al., 2014). In qualitative findings, credibility was achieved through observation of the reading sites, document analysis, and interviews, which allowed triangulation. The quantitative component involved a survey of teachers' views about reading instructional and interventional practices. The qualitative component involved semi-structured interviews with school principals and structured interviews with FP teachers. Several measures were taken in this study to maintain credibility. First, the same participants were involved in the study's qualitative and quantitative components. The study depended on a large enough sample to make valid claims from the results. Different data sources were used, including interviews, class records for reading and direct observation of reading sites. This allowed triangulation in the data collection (Zohrabi, 2013). Semi-structured interviews were considered for the study as they were flexible. They allowed data to be collected from knowledgeable respondents, who were most experienced in FP reading in the special schools.

4.7.2.2 Measures Taken to Ensure Dependability

Dependability is reliability in quantitative terms (Creswell, 2018) and emphasises methodological rigour to ensure confidence in the results. Dependability is also regarded as the extent to which the data demonstrates the phenomenon it was expected to measure.

The participants in this study were FP teachers and special school principals, while data was also collected from the reading records of learners, and all in the special schools in Gauteng. Knowledge of the social situation (schools) and conditions allows this study to be replicated in similar contexts. The researcher sought reliable information on FP reading from knowledgeable informants and reading records from

special schools, which are trusted documents. The interviews were mechanically recorded and preserved and can be re-analysed if need be. The researcher also used low inferences descriptors. The researcher chose interviews, observation, and records to allow triangulation. Further, dependability was ensured by collecting data from multiple sources (Lincoln & Guba, 1985) and comparing the gathered data. The researcher also sought expert advice on the soundness of the interview questions from the research supervisor (McMillan & Schumacher, 2010).

4.7.2.3 Measures Taken to Ensure Confirmability

Confirmability is a critical aspect of research that refers to the degree to which the findings are grounded in the data and are not influenced by the researcher's bias or personal perspective (Lincoln & Guba, 1995). Confirmability ensures that the findings are the experiences of the participants and not the researcher. This was achieved through triangulation and member checking (Lincoln & Guba, 1985). Confirmability in this research was also achieved through an audit trail as the researcher maintained a detailed audit of data collection procedures and methodology. In addition, data triangulation ensured confirmability as the mixed methods research used multiple data sources. Furthermore, peer debriefing and member checking ensured confirmability in this research. The researcher regularly discussed the research process with the supervisor and shared the findings with teacher participants. Even more important, the researcher was honest and ensured transparency in every research stage.

4.7.2.4 Measures to Ensure Transferability

In qualitative terms, transferability refers to whether the study's findings apply to other similar sites (Cohen et al., 2018). In this study, the transferability of findings from interviews, observations and document analysis was ensured through a thick description of the research context, including the setting, participants, and data collection procedures (Creswell, 2018). This allows the readers to understand the specific context in which the research was conducted and make informed judgements about the applicability of the findings to other settings. The researcher also used purposive sampling to select participants who are representative of the population of interest (Patton, 2002). This involved the selection of FP teachers in special schools. Data triangulation can be used to cross-validate findings from interviews, observations, and documents. Further, the rich and detailed participant quotes and

recordings illustrate key themes and findings (Lincoln & Guba, 1985). This allows readers to gain a deeper understanding of the participants' perspectives.

4.8 ETHICAL CONSIDERATIONS

The researcher was cautious of the importance of ethical considerations when conducting research concerning vulnerable populations, such as learners with mild intellectual developmental disorders in special schools in Gauteng. The study's ethical framework was guided by the principles of confidentiality, integrity, voluntary participation, respect, beneficence, non-maleficence, and autonomy (Arscott et al., 2010; Beauchamp & Childress, 2013; Hammel, 2015; United Nations, 2006).

4.8.1 Permission to Carry out Research and to Enter Sites

First, ethical clearance was sought from the ethical committee of the University of Pretoria. Then, permission to carry out the study in Gauteng Schools was sought from the GDE. Once permission was granted, official letters were sent from the University of Pretoria to the principals of the selected schools requesting permission to conduct research at the schools.

4.8.2 Informed Consent

All information from schoolteachers was only collected with their informed consent. In this study, informed consent was obtained from school principals and school governing bodies before commencing with the study. Then the researcher obtained consent from teacher respondents. In obtaining informed consent, the principle of voluntary participation was emphasised (Babbie, 2021; Cohen et al., 2018; Creswell, 2014). The researcher explained the main objectives of the study as contained in the letters to the FP teachers and special schools' principals (Appendix G and H) and how it will contribute to the existing knowledge. The research procedures were outlined as well as confidentiality and anonymity. Further, a statement of voluntary participation was included emphasising that participants could withdraw at any time (Babbie, 2021; Cohen et al., 2018).

4.8.3 Voluntary Participation

The teachers were not forced to participate in the study and those who took part were informed that they could withdraw at any time if they felt that they wanted to do so (Glantz, 2003). The teachers who participated in the study had the free power of choice

to participate, as suggested by Grodin and Annas (1996). The researcher provided a thorough explanation of the rules to clear any elements of force, fraud, duress, over-reaching or coercion. In the same light, clear boundaries were established, and the participants were made aware of the purpose of the study as well as the researcher's responsibilities and obligations (Salkowska, 2018).

4.8.4 Confidentiality and Anonymity

The researcher made sure that all the data and statements from the teacher participants remained confidential and anonymous. To maintain confidentiality, teachers personal and professional details remained confidential. Pseudonyms and codes were used to protect the identities of participants and schools (Hammel, 2015).

4.8.5 Protection from Harm

The researcher was cautious because the study involved participants who worked with children under the legal age of consent and vulnerable (WHO, 2016). The researcher took cognisance of the fact that all the information gathered from the school teachers was based on the reading done by the special school learners in the FP who are vulnerable. Therefore, the study adhered to strict ethical principles throughout the entire research process so that the children's rights were protected, as advocated by Pillay (2014).

4.8.6 Respect for Participants

The researcher also took cognisance of the participants' cultural backgrounds, age and gender, and guarded against any form of harm that could arise from research activities. The study recognised the inherent dignity and worth of learners with mild intellectual developmental disorders in special schools as well as their teachers. As such, all sites were entered with respect and the consent process ensured that the teachers understood the study's purpose, procedures, and benefits (DBE, 2014).

4.8.7 Beneficence

The study aimed at promoting the well-being and education of learners with mild intellectual developmental disorders by exploring effective teaching practices that could support their reading development (Kohlberg, 1981). The study findings can potentially inform policy and practice and improve the quality of these learners' education.

4.8.8 Data Storage and Security

The researcher maintained strict administrative, technical and physical procedures during the research process to protect the primary data from the special schools. Access to research information was limited through password credentials and factor identification. Encryption technology was used to safeguard this research's account registration and sign-up information. Data collected from schools will remain confidential, and any names used were replaced by pseudonyms. Additionally, all collected data has been electronically stored securely in the UP repository and will be stored for fifteen years.

4.9 CHAPTER SUMMARY

This chapter outlined the methodology employed in this study, providing a detailed account of the research design, sampling strategy, data collection methods, and data analysis procedures. By adopting pragmatism and A mixed methods approach as well as a convergent parallel mixed methods design, this study aimed to provide a nuanced understanding of instructional and interventional practices employed by FP teachers in special schools to teach learners with MIDDs to read. Using surveys, interviews, observation, and document analysis enabled the collection of quantitative and qualitative data that was subsequently analysed using descriptive and thematic analysis. The sampling strategy ensured that the sample was representative of special schools in Gauteng. This methodology chapter has provided a detailed account of the research process, enabling readers to evaluate the study's findings and limitations critically. The following chapter will present the study's findings, highlighting the key results and implications for FP reading in special schools.

CHAPTER 5: RESULTS OF THE STUDY

5.1 INTRODUCTION

This chapter presents the findings of the mixed methods study, which explored the reading instructional and interventional practices employed by teachers in special schools to support FP learners with mild intellectual developmental disorders (MIDD). The study investigated the influence of teachers' biographical profiles and contextual factors on FP reading instructional and intervention practices, and their effectiveness in enhancing reading outcomes for these learners.

The study's findings are presented in two sections. The first section presents the quantitative findings, which provide an overview of the respondents' demographic characteristics and the reading instructional and intervention practices used by the teachers. The second section presents qualitative findings, which provide a more in-depth understanding of these reading instructional and interventional practices. The findings are then integrated, leading to the discussion in Chapter 6.

5.2 QUANTITATIVE RESULTS

The quantitative results presented in this section provide a comprehensive biographical profile of FP teachers in special schools in Gauteng and an overview of the teaching and reading progress made by learners with mild intellectual developmental disorders to master basic reading skills. The data was collected through 68 survey questionnaires administered in 34 special schools in Gauteng, revealing the current state of reading instruction and intervention practices for these learners. Specifically, the data shows the frequency and duration of reading instruction, the types of reading materials used, and the assessment methods employed to measure learner progress. The quantitative data is presented as tables, figures, and graphs. Descriptive, inferential, and summary statistics, such as frequencies and percentages, are used to give an overview of the results.

5.2.1 Biographical Data of the Sample

First, the descriptive statistics are reported on the biographical data of the 56 respondents who responded to the survey. The survey questionnaire, as presented in Chapter 4, was meant to collect data from FP reading teachers. Research has consistently shown that teacher characteristics play a crucial role in determining the

effectiveness of reading instruction (Darling-Hammond, 2010; Hattie, 2009). When it comes to teaching reading to learners with mild intellectual developmental disorders, it is essential to consider the age, gender, qualifications, teaching experience, and teaching reading experience of teachers in the FP. In this study, it was important to understand the factors that influence the effectiveness of reading instruction and intervention practices in the FP in special schools. The biographical data of the respondents generated by the survey questionnaire is presented in Table 5.1 below.

Table 5.1

Reading Teacher-Participants' Biographical Details

Gender	Age/Years	Qualified	Reading instruction experience(Years)	Length of teaching experience(Years)
F	25 – 29	Yes	4	4
M	25 – 29	Y	3	3
M	50 – 59	Y	16	20
F	40 – 49	Y	4	10
M	40 – 49	Y	2	12
F	25 – 29	Y	4	8
F	U – 25	Y	1	2
F	30 – 39	Y	5	10
F	40 – 49	Y	3	11
F	25 – 29	Y	3	3
F	25 – 29	Y	1	5
M	30 – 39	Y	2	12
M	25 – 29	Y	2	12
F	25 – 29	Y	2	12
F	30 – 39	Y	2	5
F	25 – 29	Y	2	4
F	U – 25	Y	7	9
M	40 – 49	Y	4	6
M	40 – 49	Y	2	3

Gender	Age/Years	Qualified	Reading instruction experience(Years)	Length of teaching experience(Years)
M	30 – 39	Y	11	15
F	40 – 49	Y	2	13
F	40 – 49	Y	5	8
M	30 – 39	Y	2	10
M	40 – 39	Y	3	12
F	U – 25	Y	1	1
F	30 – 39	Y	15	15
F	30 – 39	Y	6	6
F	40 –49	Y	2	12
F	30 – 39	Y	2	2
F	30 – 49	Y	3	8
M	30 – 39	Y	5	10
M	40 – 49	Y	11	11
F	30 – 39	Y	5	5
F	30 – 49	Y	2	10
F	30 – 39	Y	8	10
F	25 – 29	Y	1	8
M	30 – 39	Y	4	12
F	30 – 39	Y	6	15
F	U – 25	Y	1	4
F	40 – 49	Y	9	18
F	40 – 49	Y	5	15
F	40 – 49	Y	5	16
F	U – 25	Y	2	3
F	30 – 39	Y	7	10
M	40 – 49	Y	4	16
F	25 – 29	Y	1	7
F	30 – 39	Y	3	9
M	30 – 39	Y	2	11

Gender	Age/Years	Qualified	Reading instruction experience(Years)	Length of teaching experience(Years)
F	40 – 49	Y	8	16
F	50 – 59	Y	10	20
F	30 – 39	Y	3	13
F	25 – 29	Y	3	6
F	29 – 29	Y	2	8
M	30 – 39	Y	6	10
M	40 – 49	Y	2	13
F	25 – 29	Y	1	8
	N = 56			

5.2.1.1 *Age of Teacher Respondents*

Research has shown that teachers' age and gender can influence their teaching practices, attitudes, and interactions with learners. Hobson et al. (2009) found that older teachers have more traditional teaching styles, while young teachers are more likely to use innovative and technology-based approaches. Kyriacou and Gould (2013) found that older teachers have more experience, solutions, and confidence in their teaching abilities, which can impact their instructional and intervention practices.

Teachers' ages were considered important in this research for various reasons: First, older teachers may have more experience and expertise in teaching FP reading than the young teachers. Second, teachers from different age groups may have varying perspectives and approaches to teaching reading. Third, young teachers may be more comfortable integrating technology into reading instruction. Fourth, teaching reading styles and methodologies differ with age. Teachers' age can impact reading learner engagement and motivation. Fifth, teachers of different age groups have different professional development needs.

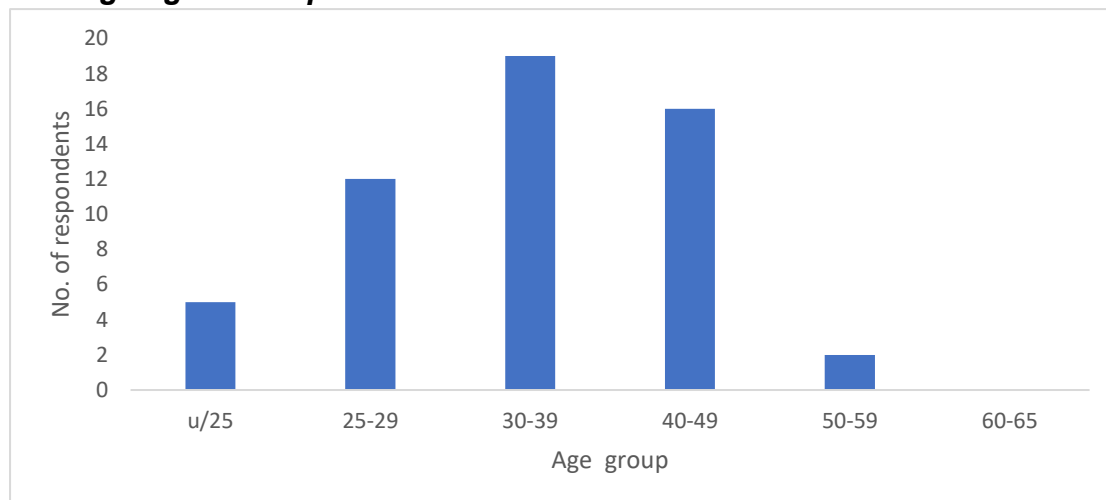
In this regard, the results show that the survey sample was made up of respondents who were mostly middle-aged. The median age group was 30–39 years, and a standard deviation of 8.59 years was reported for the respondents. This is further represented by Figure 5.2 below which shows that most of the teachers (34%) who

participated in the survey were of the age group 30-39, followed by 30% aged between 41-49 years, 25% aged 25-29 years, then 9% aged under the age of 25 years. The other 4% of the participants, representing the oldest age group, were aged 50 to 59.

The age distribution suggests that a substantial proportion of teachers teaching FP reading in special schools have accumulated considerable experience and pedagogical expertise, particularly those in the 30-39 and 41-49 age ranges. These teachers are likely to have developed effective teaching strategies and have a deeper understanding of the curriculum, which positively impacts their teaching of reading. On the other hand, younger teachers in the 18–24 and 25–29 age ranges may bring a fresh perspective, energy, and enthusiasm to the classroom. However, they may also require more support and guidance to develop their teaching skills and confidence. The age distribution highlights the need for targeted teacher development as a recommendation for Chapter 7.

Figure 5.1

Average age of Respondents



5.2.1.2 Respondents by Gender

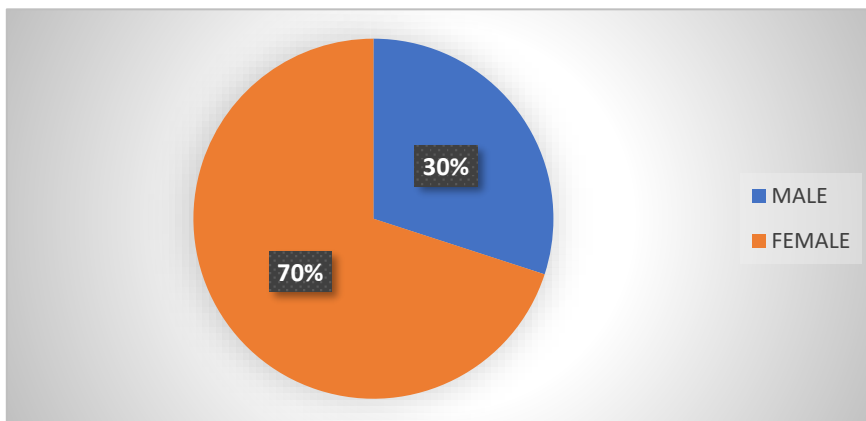
Table 5.1 further shows that most respondents in the sample were female teachers of varying ages and experience. Drudy (2008) found that female teachers have more

empathy and emotional intelligence than male teachers, which can impact their relationships with Learners with MIDDs and their teaching practices in the FP.

The finding that 70% of teachers are female and 30% are male has several implications. The dominance of female teachers may perpetuate stereotypes about teaching of FP reading in special schools being a feminine profession, potentially deterring male teachers. The finding that 70% of reading teachers were females aligns with previous research highlighting the feminization of the teaching professions. Also, the lack of male teachers may affect male learners' perceptions that reading is for girls. Additionally, male teachers may bring a different perspective and approach to teaching, which can benefit learners who respond better to alternative teaching styles. Further, the imbalance in gender may affect power dynamics in FP reading, with the potential of affecting reading instruction and intervention practices.

Figure 5.2

Summary of Respondents by Gender



5.2.1.3 Professional Qualification and Experience

Teacher qualifications and teaching experience are also critical factors in determining the quality of reading instruction (Wayman et al., 2016). Teachers with specialised training in special education and reading instruction may be better equipped to teach and support Learners with MIDDs in reading. Table 5.1 indicates that the study's teacher-respondents reported a high professional qualification standard. The result demonstrates that in all the sites, FP reading during the survey was taught by qualified teachers. All participants (100%) stated they had teaching qualifications, some experience as teachers, and some experience in teaching reading.

The results indicate a wide range of teaching experiences in general. For example, some respondents reported periods of 20 years of teaching experience and over 16 years of teaching reading experience. The implication is that the data on FP reading in special schools in Gauteng was collected from very knowledgeable and experienced teachers and is, therefore, credible.

5.2.1.4 Teaching Reading Experience

Furthermore, teachers' teaching reading experience significantly predicts reading achievement (Taylor et al., 2000). Teachers with extensive teaching experience of FP reading to learners with intellectual developmental disorders may have developed effective strategies and techniques to inform best practices. The table also shows that there is a wide range of teaching reading experience among the FP teachers. The implication is that there might be a wealth of knowledge in teaching FP reading in special schools vested in the teachers, which can benefit learners with mild intellectual disability.

5.2.2 Demographic Characteristics of the Respondents

This section presents the descriptive statistics of the demographic characteristics of FP reading teacher-respondents in the survey for reading teachers in special schools in Gauteng. The age distribution of teachers is a significant factor in the teaching of MIDD reading, as it can influence teaching styles, instructional approaches, and interaction with learners. Teachers ages can impact teaching experience, technological proficiency, pedagogical approaches, teaching style and classroom management. The demographic characteristics of the participants are depicted in Table 5.2 below.

5.2.2.1 Descriptive Statistics

The mean, median, and mode are calculated using the data in the frequency table to provide an overview of the central tendency and distribution of the ages.

Table 5.2

Demographic Characteristics of the Respondents

Age Group(Years)	Frequency	Percentage
18-24	5	8.9%

25-29	13	25.0%
30-39	19	33.9%
41-49	17	30.4%
50-59	2	3.6%
Total	56	100%

The mean age of the teacher-respondents was 37.55 years. This suggests that, on average, the teachers teaching FP reading in special schools are in their mid-to-late 30s. The median age of the teachers was 35.5 years. Since the median is slightly lower than the mean, there is some skewness in the distribution, with a few older teachers pulling the mean upwards. The modal age range is 30–39 years, with 19 respondents (33.9%) falling within the range. This suggests that the largest proportion of teachers are in their 30s. The standard deviation of the ages is 8.59 years, which indicates that the ages are spread out over a range of approximately 17 years. The mean, median, and mode provide a snapshot of the age distribution of FP reading teachers. The relatively high mean age suggests that the teachers are experienced, while the modal age range indicates that most teachers are in their 30s. The standard deviation indicates that the ages are spread out over a moderate range. The age distribution of the FP highlighted here has implications for teaching practices and experience, teacher recruitment, retention, and professional development. For instance, teachers in the 30–39 age range may have more recent training and exposure to contemporary teaching methods, which could influence their approach to teaching reading to MIDD learners. On the other hand, teachers with more experience may have developed more understanding of how to adapt their teaching to meet the unique needs of MIDD readers. In the next section, descriptive statistics are used to perform inferential statistics to reach conclusions about the population of FP teachers in this study.

5.2.2.2 Inferential Statistics

The results of the inferential statistics are presented below. The confidence interval for the mean, t-test, and ANOVA were determined to reach conclusions about the population of the FP reading teachers in special schools in Gauteng.

5.2.2.2.1 Confidence Interval for the Mean

A confidence interval for the Mean is a statistical tool that provides a range of values within which the true population Mean is likely to lie (Cummings, 2013). It is a way to estimate the population's Mean based on a sample of data. In the context of this study, a confidence interval for the mean age of FP teachers provides valuable insights into the population. It informs policy decisions related to teacher recruitment, retention, and staff development for teaching reading. This statistical tool (Kline, 2013) can also be used to estimate the population mean, assess the precision of the estimate, and compare the mean age of the sample to a known value such as the national average age of teachers.

To calculate the 95% confidence interval for the FP teachers, the mean ($\bar{x}$) = 37.55, standard deviation, (s) = 8.59, and sample size, (n) = 56., of descriptive statistics presented earlier were used based on the formula: Confidence Interval (CI) = $\bar{x} \pm (Z \times (S/\sqrt{n}))$ where Z is the Z-score corresponding to the desired confidence level (95%) in this case (Hoekstra et al., 2014). The confidence interval was calculated thus: $Z=1.96$ and $CI \approx (34.62, 40.48)$. The interpretation is that we can be confident that the true mean age of the FP reading teachers population lies between 34.62 and 40.48 years. In other words, the value is plausible as a reasonable estimate of the true population parameter of FP reading teachers in special schools in Gauteng.

5.2.2.2.2 Hypothesis Testing

Hypothesis testing is a statistical procedure used to determine whether a hypothesis about a population parameter is true or false (Field, 2018; Cummings, 2013). It involves the testing of a null hypothesis (H_0) against an alternative hypothesis (H_1) using sample data. This procedure was incorporated to compare what different reading teacher age groups consider effective teaching, instruction, and practice for learners with mild intellectual developmental disorders. The other reasons were to answer one of the secondary research questions, and to evaluate the relationship between the teacher's teaching reading experience and the progress their learners made in mastering reading skills.

A t-test was conducted to determine whether the mean age of the teachers was significantly different from 35 years. The results showed a statistically significant difference ($t(55) = 2.22, p < 0.05$), indicating that the mean age of the population is

unlikely to be 35 years. In addition, the findings suggest that the population of FP reading teachers is likely to have a mean age between 34.62 and 40.48 years. This information can be useful to this research as it helps us further understand the demographic characteristics of the respondents and their responses to the survey questions, as well as being helpful to educational administrators and policymakers.

5.2.2.2.3 Analysis of Variance

ANOVA (Analysis of Variance) is a statistical method that partitions the total variation in a dependent variable into two components: the variation between groups and the variation within groups (Kirk, 2013). By comparing the variation within groups, ANOVA determines whether the difference between group means is statistically significant (Field, 2018; Kline, 2013). In addition, ANOVA offers a statistical significance test, enabling researchers to ascertain whether the observed differences between group means are attributed to chance or real effects (Kline, 2013). For this study, a one-way ANOVA was conducted to compare the mean ages of FP reading teachers across different age groups. One way ANOVA allowed for simultaneous comparison of different age groups. Reading The results indicated a statistically significant difference in mean age across the groups ($F_{4,51} = 3.51$, $p = 0.012$). Tukey's Honestly Significant Difference (HSD) post hoc analysis revealed that the 30–39 and 41–49 age groups had significantly higher mean ages than the 18–24 and 25–29 age groups.

The quantitative results from statistical analysis provide a foundation for understanding the demographic characteristics of FP reading teachers in this study. The confidence interval, t-test, and ANOVA results collectively suggest that the mean age of FP reading teachers in this study is between 34.62 and 40.48 years, indicating an experienced teaching workforce in special schools in Gauteng. This figure gives confidence that the results of the study come from knowledgeable people and are valid. In addition, there is a statistically significant difference in the mean age of teachers across different age groups, with older teachers (41–49) having a higher mean age than younger teachers (18–24). The age distribution of FP reading teachers varies significantly across schools. Teacher demographics influence classroom practices and the reading development of special school learners with mild intellectual developmental disorders.

Further, teachers' needs in the reading classroom are also likely to vary with age, and the result from this study shows that age distribution varies significantly across schools, suggesting that the needs of FP reading teachers in special schools in Gauteng also vary widely. Therefore, reading instructional and intervention practices, needs of reading teachers, and the progress learners with mild intellectual developmental disorders make in reading are also likely to vary from class to class and from school to school. The survey results investigating these reading instructional and intervention practices are presented next, starting with reading instruction.

5.2.3 Teacher Reading Instructional Practices in the Foundation Phase

The statistical analysis presented earlier provides a quantitative understanding of the demographic characteristics of FP reading teachers. However, it is essential to examine their responses to the questionnaire to gain a deeper understanding of how these teachers teach reading in the classroom. By linking the statistical analysis to the teacher responses (Creswell, 2014), this study aimed to comprehensively understand the complex factors that influence teaching reading in the FP. The responses from the teachers provide valuable insights into their teaching practices, strategies and challenges. The paper questionnaire (Appendix A) focused on teaching methods, strategies, assessment, challenges, and support.

5.2.3.1 Foundation Phase Reading Class in Special Schools

Teachers' understanding of their reading classes is discussed before presenting the instructional practices employed by the teachers to teach learners with mild intellectual developmental disorders to read, starting with class sizes.

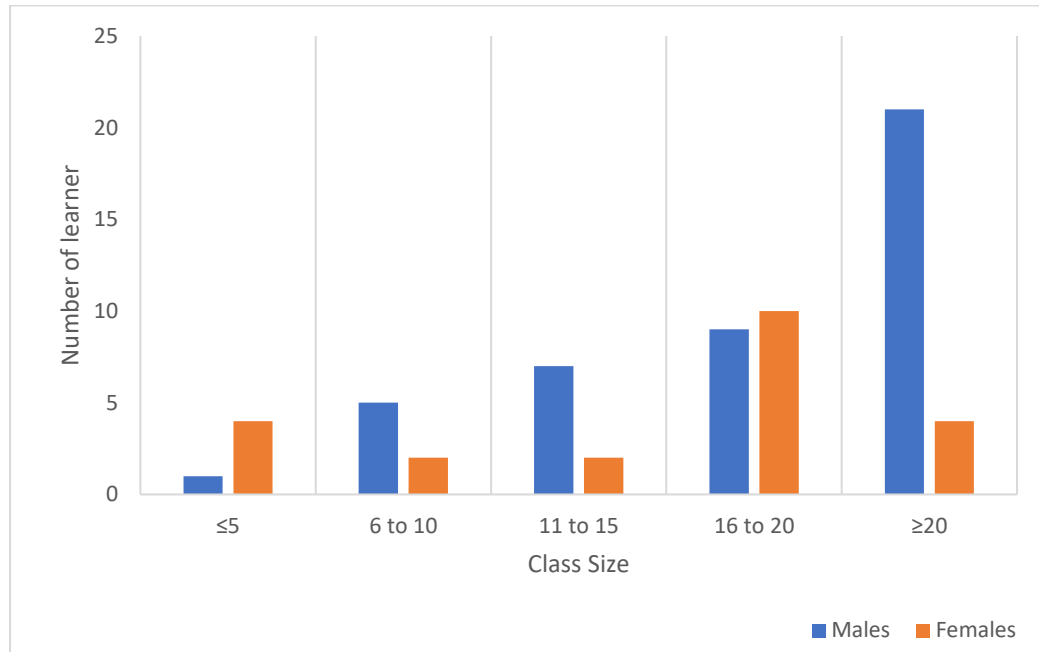
5.2.3.1.1 Reading Class Size

The size of the reading class matters in this research as class size influences instructional strategies, class management, and support given to learners. The recommended class size for learners with mild intellectual developmental disorders varies depending on the specific needs and circumstances of the learners. However, research suggests that smaller classes are beneficial to MIDD learners, and class sizes of 13-17 are recommended. Smaller classes have been shown to lead to better academic outcomes for learners with intellectual developmental disorders. Smaller classes allow teachers to provide more Individualised attention and support to learners

and better behavioural support. Figure 5:3 below shows the average class size in the FP in special schools in Gauteng as illustrated by the graph.

Figure 5.3

Class Sizes in the Foundation Phase in Special Schools



Classes for learners with a mild intellectual developmental disorder in Gauteng vary, with some classes unexpectedly being very small. Research in South Africa has consistently highlighted the challenges posed by classroom overcrowding, which has been linked to poor reading outcomes (Condy & Blease, 2014; DoE, 2008; Mudzielwane, 2014; Phala & Hugo, 2022). Overcrowding was not reported in this study, as illustrated by the bar graph.

Figure 5.3 shows that 46.6% of the respondents indicated they had classes with less than 15 learners, both boys and girls. It was also reported that some classes had about 20 learners equally distributed by gender, while very few were larger than 20. More evident from this graph is that there are more boys than girls in these classes. These findings are in line with previous findings that intellectual developmental disorders are more prevalent in boys than girls (AAIDD, 2021).

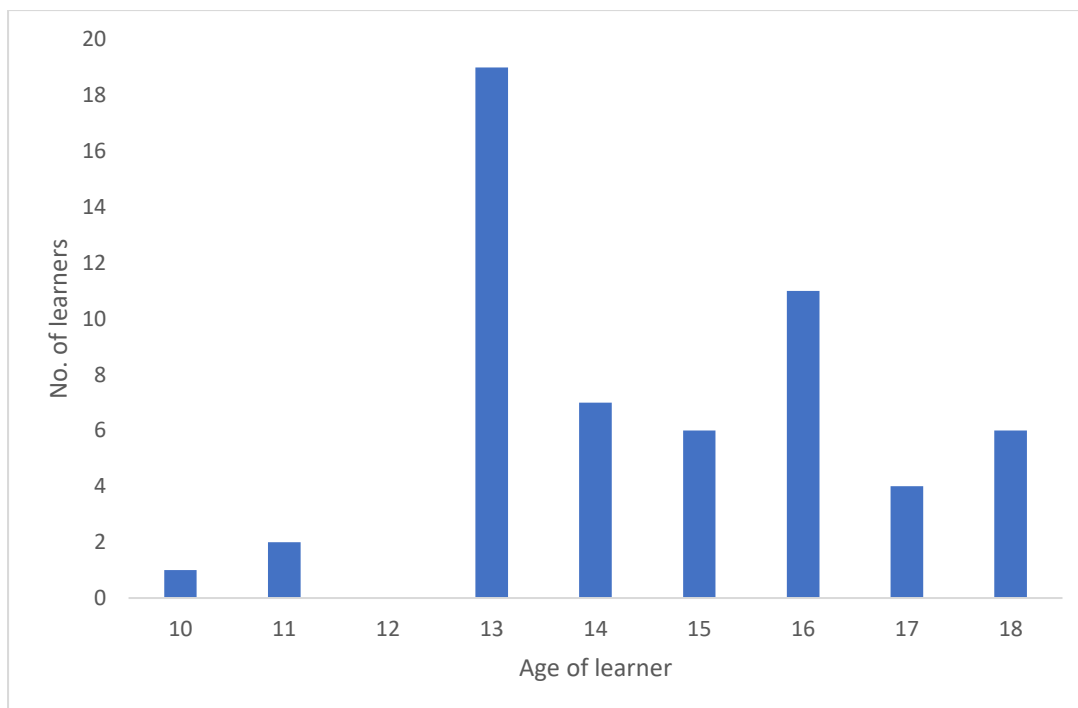
5.2.3.1.2 Composition of Classes by Age

Figure 5.4 below illustrates the composition of the FP classes by age. The questionnaire sought the average age of learners, as well as the oldest and the

youngest, in each case. The age of a learner in the teaching of reading is crucial, as it influences their cognitive, emotional, and social development (NRP, 2000; Vygotsky, 1978). The instructional implications are that reading materials, differentiated instruction, support, and motivation should be based on the learner's age.

Figure 5.4

Average age of Learners



As indicated by the graph, the youngest learners in the FP are between 9 and 13 years old, while the oldest are between 14 and 18 years old. The average age is 14 years. These results show that FP learners in special schools are much older than their peers in mainstream schools. This has implications for instructional and interventional practices to cater for ages. They might feel they are lagging their peers from other schools and at home, with younger ones reading better than them, or helping them to read, the learners are likely to be psychologically affected.

5.2.3.1.3 Progress Learners Make in Reading

Mastering foundational reading skills is a critical milestone in the FP, as learners who miss reading at this stage might never catch up (Johnson, 2012). Reading at grade level enables Learners with MIDDs to access the academic and vocational curriculum

when they start to read to learn as they exit the FP (Gibb, 2022; Raimjanovna, 2023; Scales, 2021; Spaul, 2023). The DBE reports that learners who do not read at grade level by the end of Grade 3 are more likely to experience academic failure and drop out of school (DBE, 2011).

When asked about learners struggling with phonological awareness, learners reading at grade level, and a few learners who could read at grade level when they exit the FP, the respondents gave almost similar views as demonstrated by Table 5.3.

Table 5.3

Progress Being Made in Learning to Read

	All		More than	Half	Less than	None
Reading at grade level			1	12	15	23
Good reader when exiting the Foundation Phase	1		8	15	15	1
Struggling with phonology	12		20	23		1
Learners in need of intervention	12		18	12	9	5

When it comes to reading at grade level, most of the respondents (41%) indicated that no learners were reading at grade level, and 26 % felt less than half the classes were reading at grade level. Only 21% of the respondents reported that half their classes could read at grade level, whilst only one respondent indicated that more than half the learners were reading at grade level.

On learners who could be good readers when they exit the FP; 20% of the respondents indicated more than half of the classes, 2.5% of the respondents said none of the learners, 37.5% predicted that about half the classes could be able to read at grade level, whilst another 37.5% were pretty sure that less than half of their learners were going to be good readers. Only 1.7% of the respondents indicated that FP learners would be good readers when they exit the phase.

When further asked about learners who struggle with phonological awareness, most of the respondents indicated that about half of their learners were struggling with phonological awareness, 35.7% indicated more than half, and 21,4% said all the learners were struggling with phonological awareness.

On an intervention programme for learners struggling to read, 32% of respondents further indicated that more than half of their classes needed intervention, 21% indicated it was needed for all the learners, and the other 21% indicated that almost half the class needed it. Only 16% of respondents said less than half their classes needed an intervention programme, and 9% indicated that the learners were not in need of an intervention programme.

Put together, the findings point out that few learners can read at grade level, and less than half of the learners are expected to be good readers when they exit the FP. Again, the results point out that most learners struggle with phonological awareness, and most of them would need an intervention programme as suggested by the FP teachers. This is why it is important for the FP to determine learners' reading levels to meet this goal.

5.2.3.1.4 Reading Levels of Learners

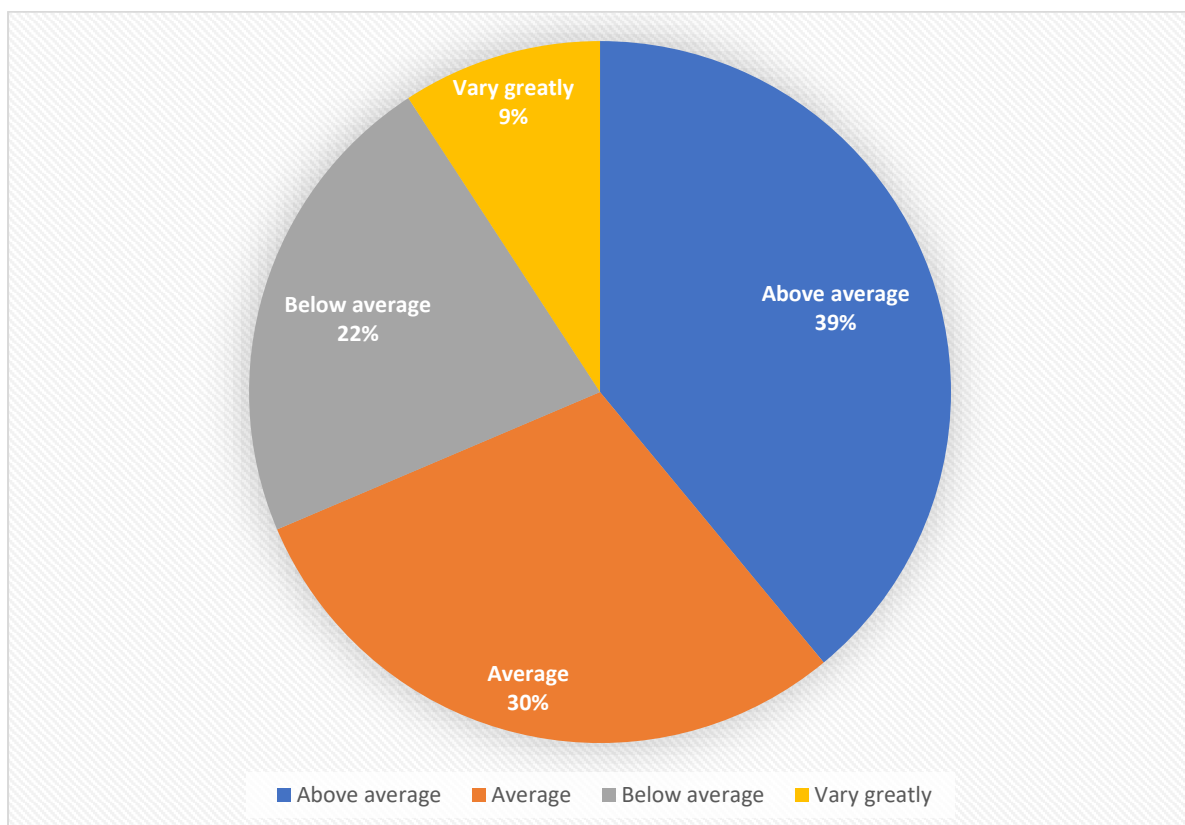
Research in the FP reading stresses the importance of teachers' knowledge of reading levels in providing targeted support, intervention, and monitoring reading development for learners who struggle with reading (Dickinson & Tabors, 2001; Moats, 2014)

The respondents were further asked to indicate the levels at which their learners were reading at the time of the study, and the results are captured in Figure 5.5 below. Reading levels help to track the progress a learner makes in reading. As such, the reading levels enable the reading teacher to plan for effective instructional and interventional practices to meet the needs of the learner. Reading levels are assessed on a benchmark (Pretorius et al., 2016) and inform progress monitoring and evaluation of the reading programme (Gündogmus, 2018). This is important in the FP where learners must move from one stage to the next to master the basic reading skills that will enable them to be competent readers one day. Teachers use the assessment data from reading levels to inform instruction and make data-driven decisions about learners' reading progress.

As portrayed by Figure 5.5, 39% of teacher-respondents indicated that the reading levels of their learners were below average. Only 9.2% of the respondents indicated that learners' reading levels were above average, whilst the other 29.6 % said reading levels varied greatly, and the remaining 22,2% suggested that the reading levels were average. The varying reading levels, therefore, influence the instructional and interventional practices employed by the teacher to cater to the learners' different reading needs. This is where digital texts, audio books, graphic organisers, multimodal reading material, and interactive reading activities will benefit learners.

Figure 5.5

Average Reading Levels of Foundation Phase Classes Taught



5.2.3.1.5 Organising Classes for Reading

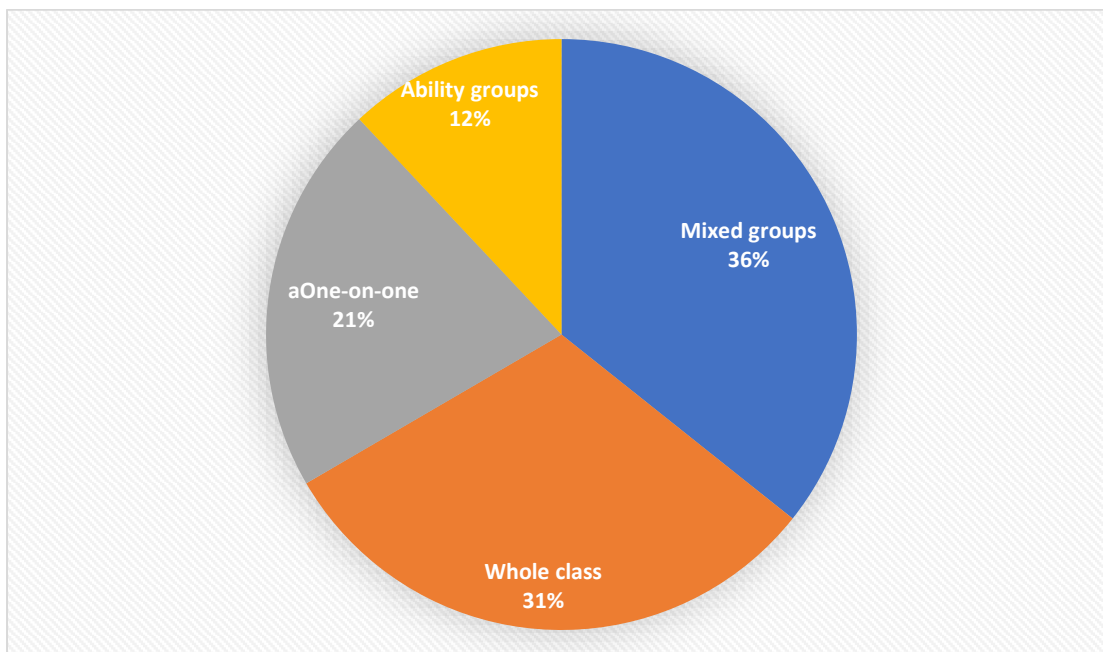
Effective reading instruction in the FP is important for learners' progress as measured by the reading levels, and organising reading classes is a crucial aspect of this instruction. Grouping learners based on their reading levels allows teachers to provide targeted instruction and support, as well as differentiated instruction and explicit instruction (Moats, 2010; NRP, 2000; C. A. Tomlinson, 2001). Well-organised reading

classes can lead to learners' progress in mastering basic reading skills, increase their motivation, and foster positive teacher-learner relationships, which are critical for academic success (Gambrell, 1996; Hattie, 2009; Taylor et al., 2000).

As represented by Figure 5.6 below, 36% of the respondents stated that they created mixed groups when teaching reading, 31% reported teaching their learners as a whole class, 21% engaging the learners individually, and the remaining 12% prefer to teach reading in ability groups. A reading teacher might consider environmental, instructional or learner factors to organise the class. For example, environmental factors such as classroom layout and technology access, instructional factors such as the teaching approach, the instructional goal, teacher expertise and training, and resources can influence how a reading class is organised.

Figure 5.6

Organising Classes for Reading Instruction



5.2.3.1.6 How Reading is Timetabled

The DBE reports that well-planned and well-timed reading instruction can significantly impact learners' reading development and motivation (DBE, 2024). In this study, most of the respondents (56.5%) to Item 5 of the questionnaire indicated that reading was

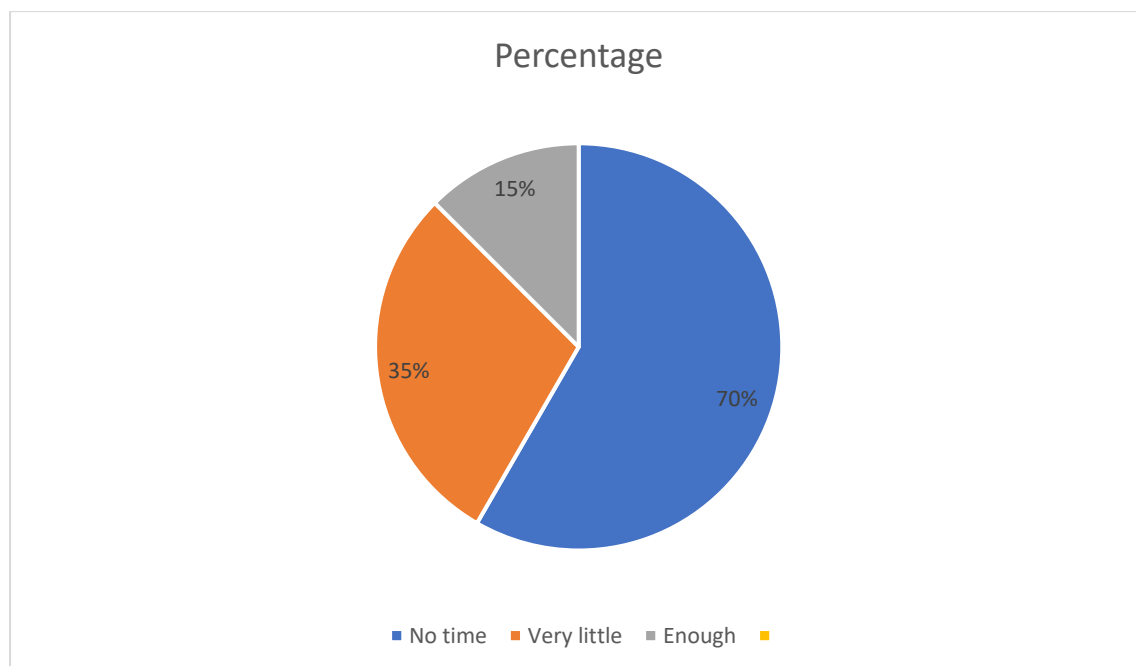
embedded in all the other subjects. Only 4.3% indicated that it was taught as a separate subject. The other 39.1% indicated that it was taught in both ways.

Further, the results of Item 6 of the questionnaire show that reading was allocated four periods per week. In response to the adequacy of time allocated for reading, 70% of respondents indicated that there was no time to teach reading, 33% saying time for teaching was very little and only 15% indicating that they had enough time to teach reading, as shown in Figure 5.7 below. The findings are reported as factors identified from the survey influencing the teaching of FP reading in special schools.

Relatedly, when asked to identify problems faced when addressing the needs of struggling readers (Item 17 of the survey), respondents again pointed out that there was no time or little time for teaching reading in special schools.

Figure 5.7

Adequacy of Reading Time



5.2.3.1.7 Challenges Faced by Reading Teachers

Other studies in South Africa reported several challenges in teaching reading in schools, including: a change in the language of teaching, lack of teaching skills, lack of reading materials, time, overcrowding (Fleitch & Dixon; Van der Mescht, 2018). Relatedly, the respondents in this study identified the lack of resources, lack of

parental support, lack of library, no knowledge of teaching reading, lack of professional development, and teaching learners who easily forget as problems affecting the teaching of reading in the FP in special schools.

Another problem related to teaching foreign learners is that they cannot pick up a single word in reading and can only communicate in a foreign language. These and other factors mentioned elsewhere in the study are the contextual factors influencing some of the instructional practices identified below.

5.2.3.2 *Reading Instructional Practices*

Table 5.4 captures the results related to the instructional practices employed by FP teachers in special schools in Gauteng to teach learners with mild intellectual development disorder to learn to read. Respondents were rather selective, as some items were omitted. Therefore, the results are based on the actual number of respondents in each case, as represented by Table 5.4; twenty-three items for investigation were considered.

Table 5.4

Reading Instructional Practices employed by teachers

Reading instructional practices	Responses						
	(N)	Daily	Weekly	Monthly	Termly	Once a year	Never
1. Assign reading homework	37	10.8 %	40.5 %	16.2 %			32.4 %
2. Teach phonics	39	41%	56.4 %	2.5 %			
3. Teach decoding	37	43.2 %	35.1 %	23.5 %			8.1 %
4. Evaluate reading activities	47	27.6 %	29.7 %	17%	19. 1%	2.1 %	4.2 %
5. Assess reading levels	56	1.7%	14.2 %	17.8 %	23. 2%	17. 8%	25%

6. Assess oral comprehension	47	44.6 %	53.1 %	2.1 %			
7. Learners to library	44		4.5 %	25% 	11. 3%		59%
8. Read aloud as class	55	50.9 %	32.7 %	14.5 %	1.8 %		
9. Evaluate intervention program	48	2%	8.3 %	8.3 %	27 %	25 %	29.1 %
10. Assess library activities	45		11.1 %	15.5 %	22. 2%		51.1 %
11. Assess spelling	37	27%	43.2 %	13.5 %	5.4 %	5.4 %	5.4 %
12. Report progress to parents	44	18.1 %	13.6 %	68% 			
13. Learners use computers	34		20.5 %	17.6 %	5.8 %	2.9 %	52.9 %
14. Learners use textbooks	45	22.2 %	37.7 %	6.6 %	4.4 %	2.2 %	26.6 %
15. Learners use internet to read	38	23.6 %	18.4 %	18.4 %	2.6 %		36.8 %
16. Learners read after teacher	24	54.1 %	25% 		8.3 %		12.5 %
17. Model reading	39	38.4 %	30.7 %	2.6 %	7.7 %		20.5 %
18. Learner read to others	39	23%	43.5 %	17.9 %			15.3 %
19. Teach vocabulary	42	42.8 %	45.2 %	4.7 %	2.3 %		15.3 %
20. Free reading	55	12.7 %	41.8 %	20% 			25.4 %
21. Learners answer oral questions	24	20.8 %	62.5 %	16.6 %			

22. Learners respond to reading in writing	39	51.2 %	30.7 %	17.9 %			
23. Learners read aloud to self	55	45.5 %	34.5 %	20.0 %			

5.2.3.2.1 Assigning Homework

The first item sought to determine if the reading teachers assign homework to learners in the FP as practice. Homework has been shown to impact reading achievement positively (Trautwein, 2007). Homework helps learners reinforce and consolidate new skills and knowledge, promoting better retention and understanding (Cooper, 2001). Additionally, homework in FP reading can potentially enhance parental involvement (Henderson & Mapp, 2002). Homework on its own is some form of feedback to parents and the teacher.

Most of the teacher respondents indicated that they assign homework weekly, 33.4% said that they never give homework, 16% assign once a month, and 10.3% say they give homework daily. The mixed responses show that there is no common practice when giving reading homework.

5.2.3.2.2 Phonics Instruction

Phonics is one of the five pillars of reading, meaning they must be taught if learners are to learn to read (Calderwood, 2023). The second item investigated the practice of teaching learners to read through phonics. As reported in Table 5.4, 56.4% of the reading teacher respondents indicated that phonics was taught weekly, 41% said daily, whilst only 2.5% would teach phonics once a month. The result aligns with current policy in the UK and South Africa, emphasising phonics in teaching reading (DBE, 2024; Gibb, 2022). The teaching of phonics is universally accepted (Hill, 2021). The South African CAPS curriculum specifies 15 minutes per day of specific phonics teaching in a school week (Manship, 2022). There is a need to investigate phonics instruction in special schools and the adequacy of time further, since reading is embedded in the language subjects.

5.2.3.2.3 Evaluating Reading Instruction

In responding to Item 4, investigating how FP teachers evaluated reading instruction, the respondents again demonstrated that no common practice was followed in Gauteng. The most frequent response, though only 29.7% of the respondents, stated that they evaluated reading weekly, 27.6% daily, 19.1% per term, 17% monthly, 4.2% never and 2.1% yearly. Informal assessments in the form of running records (Cunningham, 2001), diagnostic assessments (Johns, 2010), and formal assessments

in standardised tests are important for reading. Evaluation of reading has the benefits of informing instruction and intervention, identifying strengths and weaknesses of learners, monitoring progress and growth, and enabling the teacher to identify areas for improvement (Morris et al., 2023).

5.2.3.2.4 Teaching Decoding

Decoding is part of phonological awareness and must be taught if learners are to learn to read (Llego, 2022). Decoding involves converting written words into spoken words using phonics skills. While decoding is a distinct skill, it relies heavily on phonological awareness, and it is a must that FP learners master the skill (Endo, 2024).

As shown by Table 5.4, most respondents (41.2%) indicated that decoding was done daily during teaching, 35.1% did it weekly, 13.5% monthly, and 8.1% never engaged learners in decoding. It is unknown why other respondents highlighted that they taught decoding monthly or never, since learning to read is associated with decoding.

5.2.3.2.5 Library Reading Activities

Table 5.4 shows the respondents' practice of taking FP learners to the library. As indicated, most teachers (59%) do not take learners to the library, 25% do it once a month, 11.3% per term, and 4.5% take them weekly.

5.2.3.2.6 Reading Aloud

It is clear from Table 5.4 that majority of the respondents (50.9%) employ this practice daily, 32.7% weekly, 14.5% monthly, and only 1.8% let learners read aloud as a class each term. Scholars are divided over the merit of reading aloud to the teacher, peers or self. However, the results confirmed that reading aloud is a common practice in the FP in special schools in Gauteng. This result aligns with the NRP's (2000) findings that reading aloud guided by educators, peers, and parents has a positive effect on word recognition, comprehension and reading fluency. This positive impact is said to be widespread across grades, reading levels, and special education.

5.2.3.2.7 Evaluation of Reading Intervention Programme

Table 5.4 displays FP teachers' responses to intervention programmes they employ with learners with a mild intellectual development disorder. Most of the respondents (29.1%) indicated that they do not evaluate intervention programmes they employ, 25% evaluate once a year, and 27% each term, which is rather appropriate. Of the

other, 8.3% evaluate monthly or weekly, and the remaining 2% daily. Evaluation of a reading programme informs instruction and intervention and informs policy to see if the programme is achieving the desired objectives.

5.2.3.2.8 Assess Library Activities

It is clear from Table 5.4 that most respondents (51.1%) indicated that they do not evaluate library activities. Earlier most respondents also said they do not take learners to the library. However, 22.2% of the respondents indicated that they evaluate library activities each term, 15.5% every month and 11.1% weekly. Research recommends weekly visits to the library, which also means library activities should be evaluated weekly. Taking learners to the library exposes them to a variety of books, such as eBooks, picture books, and early readers. Learners also get exposure to computers and the internet. In a way, library activities promote love for reading, and by taking the FP learners to the library, the teacher would be laying that foundation.

5.2.3.2.9 Assessing Spelling

Research reports that in FP reading, spelling reinforces phonics and vocabulary. As a result, assessing spelling informs instruction and intervention, and enables the teacher to identify areas of improvement. In this study, the majority of the respondents (43.2%) indicated that they assess weekly, 27% daily, 13.5% indicated monthly, and 5.4% in a term or a year, whilst another 5.4% never assessed spelling.

5.2.3.2.10 Reporting Progress to Parents

Formal written reports, parent-teacher meetings, and informal updates by phone or email are ways of reporting learners' progress in reading. Reporting children's progress in reading to parents has the benefit of enhancing collaborative support for learning to read. Parents are stakeholders in their children's learning, and they play a crucial role in FP reading. This study indicates that most teachers report per term, as represented by 68% of the respondents to the survey. Of the others, 18.1% report daily and 13.6% monthly.

5.2.3.2.11 Using Computers to Learn to Read

Computers are ideal for FP reading due to their many advantages in teaching reading, including using adaptive software that adjusts to individual reading levels, thereby motivating the learner to read. Computers enhance engagement through interactive

stories, games and animations, which have the potential to motivate struggling readers. Computers develop phonics skills, and the teacher uses software that provides systematic phonics instruction. Further, computers provide differentiated instruction, immediate reading assessment and feedback to the learner and the teacher. Research internationally has confirmed the need for using computers in the FP, and computer-based reading programmes such as Reading Eggs and Jolly Phonics are popular for learning reading (Bouck et al., 2018; NRP, 2000).

However, the results of this study, as shown by Table 5.4, reveal that the majority of the respondents (52.9%) indicated that their learners never used computers for learning reading. The other 20.5% indicated that the learners used them once a week, 17.6% once a month, and 5.8% once a term, whilst 2.9% sometimes used computers once a year. This finding that computers are not being used for reading in special schools has some implications for policy, which is further discussed in the next chapter.

5.2.3.2.12 Using Reading Books for Practicing Reading

When it comes to the use of reading books, the result shows that most teachers (37.7%), use books for reading at least once a week, 26.6% never use books, 22.2% use books daily, 6.6% use textbooks monthly, 4.4% use them once a term and 2.2% once a year. Books for the FP come in different types: picture books, early readers, rhyming books, wordless books, big books, digital books and e-books. (DBE, 2014c). These books are important to teaching FP reading in that they have engaging illustrations and graphics, have an appealing layout and design, and are simple and repetitive. The only challenge in special schools is the extent to which the books are acceptable to 14-year-olds, which influences instructional and interventional practices employed by the teacher.

5.2.3.2.13 Using the Internet

Through using the internet and computers, FP learners can access free eBooks, Google Books, and online reading platforms that can help struggling readers. As the table shows, most respondents (36.8%) indicated that their learners do not use the internet for reading. However, 23.6% of respondents indicated that learners use the internet daily for reading, 18.4% at least once a month and 2.5% at least once a term.

5.2.3.2.14 Reading to the Teacher

Research (Allington, 2013) informs us that reading to the teacher increases learner confidence by providing a supportive environment. The practice provides feedback and guidance to the learner, as the teacher can give immediate feedback, correct errors, and provide guidance. The other advantage is that the teacher can assess progress as the learner reads and adjust instruction. In this study, most respondents (54.1%) indicated that they employed the practice daily with their learners and 25% employed the practice every week. Despite the practice being common with some respondents, 20.5% indicated that they did not practice modelled reading with their learners.

5.2.3.2.15 Teaching new Vocabulary

The American National Reading Panel (NRP) also cited vocabulary as one of the effective components of a reading programme in the FP. The other components equally important are fluency, phonological awareness, phonics, reading and writing. The National Inquiry into the Teaching of Literacy (NITL) and the Independent Review of the Teaching of Early Reading (IRTER) of America strongly support these views. Studies by Krashen (1989) and Reynolds et al. (2010), cited in Zuma et al. (2018) emphasised vocabulary skills as an effective reading intervention.

In this regard, Table 5.4 shows that most teacher participants (45.2%) employ this practice once a week, while 42.8% employ it every day. Only 4.7% of respondents do it once a month, and the other 2.3% do it once a term.

5.2.3.2.16 Free Reading

Free reading is another critical component of reading instruction in the FP. By providing learners with regular opportunities for free reading, teachers can promote reading fluency (Rasinski, 2006), vocabulary development (Krashen, 2004), comprehension (Gambrell, 2015), and motivation to read (Wigfield & Guthrie, 1997). It is not controlled, and the reader can choose what to read.

It is apparent from Table 5.6 that 41.8% of respondents allow free reading at least once a week, 12.7% of the respondents indicated that they do it daily, 20% at least once a month, whilst 25.4% of respondents do not practise free reading with learners.

5.2.3.2.17 Oral Comprehension

Table 5.4 shows that most teachers in the FP in special schools in Gauteng employ this practice to teach learners to read. This was demonstrated by 62.5% of respondents who employ this practice weekly, with another 20.8% employing the practice daily and the other 16.6% once a month. Oral comprehension does not demand writing, which also challenges learners with an intellectual developmental disorder. However, it improves memory, recall and vocabulary. Research shows that oral comprehension plays a vital role in the reading development of FP learners.

5.2.3.2.18 Written Comprehension

In the FP, teachers can teach learners by modelling and demonstrating written comprehension strategies (Duke & Pearson, 2002; Krashen, 2004).

Similar to responding to reading by answering oral questions, Table 5.4 demonstrates that most respondents (51.2%) practise this daily with learners. Another 30.7% practise this instructional method at least once a week, and the other 17.9% at least once a month. The result indicates that both oral and written comprehension are common practices that FP reading teachers employ in special schools.

5.2.3.2.19 Let Learners Read Aloud to Themselves

Reading aloud to oneself in the FP improves reading skills. It improves reading accuracy and speed, leading to fluency (Rasinski, 2006), which is an important reading skill in the FP. The results in Table 5.4. indicate that reading aloud in special schools is a daily practice employed by 45.4% of respondents in the survey. This was also indicated by another 34.5% of respondents who practise this instruction once a week, with the other 20% of respondents confirming that this is done at least once a month during their reading classes.

The instructional practices identified in this section, together with intervention practices discussed in the next section, are some of the teaching practices employed by FP teachers to teach learners with a mild intellectual developmental disorder to read. The reasons behind the use of these practices have also been highlighted.

5.2.4 Reading Intervention Practices Employed with Learners in Special Schools

Teachers' demographic characteristics influence instructional practices in reading and reading interventions. Teachers with specialised training in reading instruction, such as Orton-Gillingham training, may be more effective in implementing reading interventions. Relatedly, experienced teachers may be more adept at tailoring reading interventions to meet the diverse needs of their learners. This section presents the survey's findings on reading interventional practices employed by special school teachers to teach FP learners to read. Table 5.5 shows how Gauteng teachers responded to the survey items that sought to determine how they intervene in their reading classes.

Table 5.4
Intervention Practices for Foundation Phase Reading

Practice	Response					
	(N)	Strongly agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly disagree
1. School follows an intervention programme	34	14.7%	8.8%	11.7%	11.7%	52.9%
2. I employ my own interventions	43	34.8%	30.2%	23.2%	11.6%	
3. Interventions for the whole class	47	10.6%	17%	21.2%	21.2%	29.7%
4. Interventions with a time frame	37	8.1%	16.2%	32.4%	27%	16.2%
5. Interventions are formal	47		27.6%	7%	23.4%	32.9%

6. Follows reading interventions known programmes	38		21%	26.3%	18.4%	26.3%
7. Reading interventions once-off	35			25.7%	31.4%	51.4%
8. Early identification of struggling learners	46	60.8%	26%	13%		

Table 5.5 provides an overview of reading intervention practices employed by FP teachers in special schools in Gauteng. The results in Table 5.6 indicate that most teachers in the FP (52.9%) strongly disagreed with the view that their schools followed a reading intervention programme. This view was also refuted by 11.7% of respondents who disagreed with this statement. The other 11% were unsure about all this, even though special schools follow the DCAPS or EGRA programmes, as directed by the DBE in South Africa. However, 14.4% of the respondents indicated that their schools followed an intervention programme, and another 8.8% agreed.

5.2.4.1 Teacher Employ Own Interventions

The result shows that most respondents employ their own interventions and do not follow a specific programme. Based on the data obtained from the survey, 34.8% strongly felt that they employed their own interventions to teach FP learners with a mild intellectual developmental disorder to read. Another 30.2% of the respondents agreed with this, with 23.6% not sure and 11.6% disagreeing that they employ their own interventions.

5.2.4.2 Reading Intervention Employed with the Whole Class

Further probed to find out if these interventions were for the whole class, most of the respondents did not indicate so. From Table 5.6, 28% of the respondents strongly disagreed with employing interventions with the whole class, while the other 25.2% also disagreed with this. However, 10.6% strongly agreed that the reading interventions involved the whole class. Further, 16% of respondents also agreed with this, and 20.2% were neutral.

5.2.4.3 Interventions have a Time Frame

Reading interventions are known programmes (Wanzek et al., 2018) with a time frame since they must be evaluated to determine whether they are working. In response, most teachers (32.4%) were neutral, suggesting there is no common policy on this in Gauteng. This was clarified by another 27% of respondents who disagreed that interventions had a time frame. Only 8.1% strongly agreed with this, with another 16.2% agreeing.

5.2.4.4 Reading Interventions Are Formal

As indicated by Table 5.6, 31.9% of the respondents did not regard reading interventions in special schools as formal, with another 23.4% also agreeing to this and 17% of respondents were relatively neutral. On the other hand, 27.6% of respondents regarded them as formal. Wanzek et al. (2018) and Richardson (2018) posit that reading interventions should be formal, employed with fidelity and within a time frame. This is discussed further in Chapter 6.

5.2.4.5 Reading Interventions Are Known Programmes

There was no common understanding on this among the respondents. It is clear from Table 5.6 that about 26.3% of respondents strongly disagreed that reading interventions are known programmes that have been developed for struggling readers. Another 26.3% of respondents were neutral, meaning it was something they did not understand. Another 18.4% also disagreed that interventions are known programmes. However, only 21% of the respondents agreed that these are known programmes being implemented in some schools.

5.2.4.6 Reading Interventions Are Once-Off Programmes

Most respondents strongly disagreed with this, with another 31.4% equally disagreeing. The other 25.7% of respondents were relatively neutral. Reading interventions should be seen as an ongoing process, as agreed by many of the respondents.

5.2.4.7 Early Identification of Struggling Readers Important

The results indicate that most respondents, 60.8%, strongly confirmed this practice in special schools. Further, 26% of the respondents also agreed with this, and only 13% were neutral. The large body of literature on reading interventions reports that

numerous studies have demonstrated the importance of early intervention (GDE, 2018; Henning, 2020).

In summary, the results from Table 5.6 have shown that when it to an understanding of reading interventional practices employed in special schools, implementation varies from one school to another due to some contextual factors in the organisational system of the school, as suggested in the conceptual framework. As such, support given to reading teachers, FP learners, and reading programmes in schools tends to vary from school to school.

5.2.5 How Special Schools Support Reading Programmes

The conceptual framework shows that learning to read involves two complex systems, with the school being the host of the organisational system. This section discusses the survey results to show how the school, as a factor, also influences the instructional and interventional practices employed by the FP teachers. Items that were considered include the availability of a specialist, how the school undertakes reading instruction, professional development in the school, the issue of class size for reading, and the extent to which reading teachers get support from the school.

Table 5.5

How the School Supports Foundation Phase Reading

Practice	Response				
Type of Support	(N)	Strongly agree	Agree	Disagree	Strongly disagree
1. School has a reading specialist	56	21.4%	14.2%	33.9%	30.3%
2. Reading is taken seriously by the school	36	36.1%	36.1%	5.5%	22.2%
3. Professional development for reading teachers	46	8.6%	19.5%	34.7%	36.9%

4. Computers for reading are available	42	16.6%	23.8%	33.3%	26.1%
5. Parents support reading	49	22.4%	12.2%	26.5%	38.7%
6. Class size is manageable	56	32.2%	39.2%	14.2%	14.2%
7. Teachers get all the needed support	44	15.9%	22.7%	36.3%	25%

5.2.5.1 Reading Specialist in Special Schools

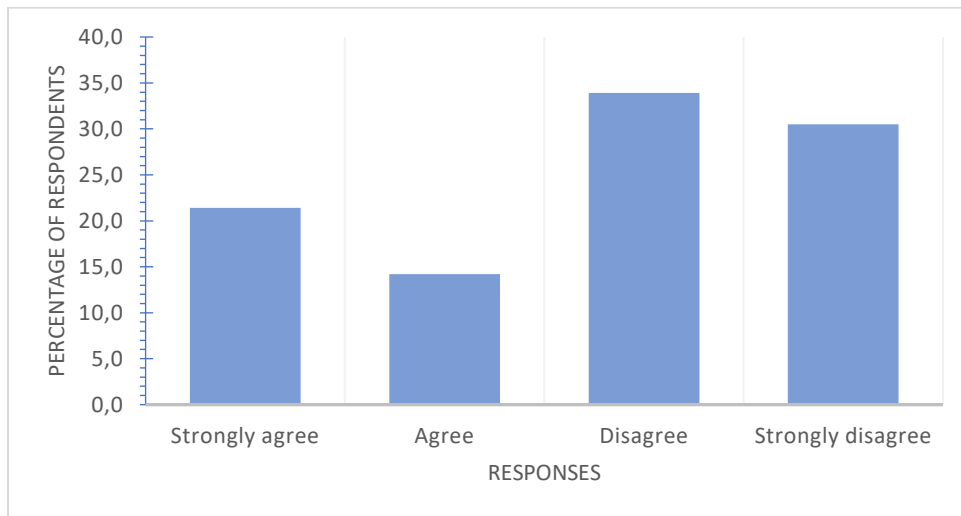
When working closely with classroom teachers, reading specialists can develop and implement reading instruction that can ensure a cohesive, supportive learning environment (Walpole & McKenna, 2017). They also provide targeted interventions that can address specific reading skills in the FP, such as phonemic awareness, phonics, and comprehension (NRP, 2000). Reading specialists are skilled in assessing and diagnosing reading difficulties and can develop tailored interventions (Kilpatrick, 2015) to meet FP learners' unique needs in Gauteng special schools.

Concerning the availability of a reading specialist in the special schools in this study, the results indicate that in most special schools, there are no reading specialists to help with some difficult situations where the teacher's interventions cannot work anymore. As suggested by the Tier 3 model (Wanzek et al., 2018) discussed in the literature, this is where the specialist can also intervene.

From Figure 5.8, it is clear that in most schools, there are no reading specialists, as indicated by 33.9% of respondents who disagreed and a further 30.3% who strongly disagreed. However, 21.4% strongly indicated that there were reading specialists in schools, and another 14.2% also agreed with this. This information is summarised in the bar chart below.

Figure 5.8

The School Has a Reading Specialist



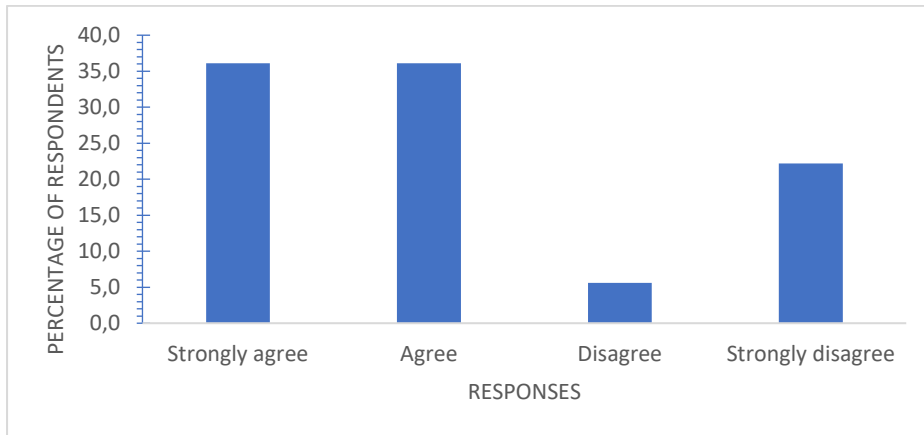
5.2.5.2 Schools' Approach to Foundation Phase Reading

The school provides the host environment (Zins & Ponti, 1990) in the conceptual framework in this study, and its support and approach to FP reading (Lisbona et al., 2020; Van der Mescht, 2018), which determines the success of reading instruction and intervention in special schools in Gauteng.

The survey results indicate that 35% of the respondents strongly confirmed that reading was being taken seriously, with another 35% agreeing to this. However, 25% of respondents strongly felt that reading was not being taken seriously in their schools, with another 5% also disagreeing. These views are further confirmed in Figure 5.9 below.

Figure 5.9

Reading is Taken Seriously by the School

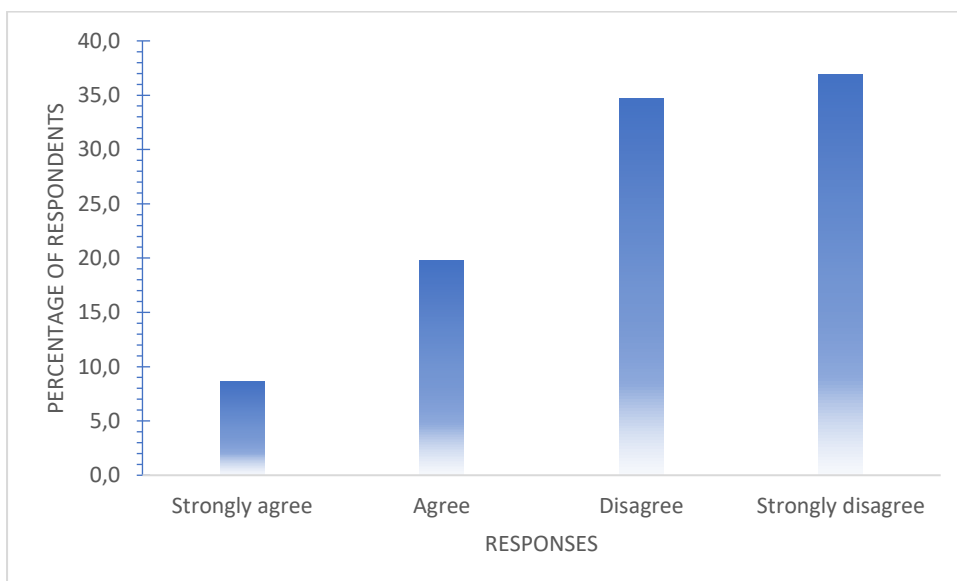


5.2.5.3 Professional Development in Special Schools

The results indicated that very few respondents (8.6%) strongly agreed that there was professional development for reading teachers in special schools.

Figure 5.10

There is Professional Development for Reading Teachers in the School



Another 19.5% “agreed”. However, most respondents disagreed. This is shown by 34.7% of respondents who disagreed and another 36.9% strongly disagreeing that there was professional development for reading teachers in the school. Figure 5.10 above clearly shows this result. Professional development is seen as one way of improving the teaching of reading in the FP, as further discussed in Chapter 6 (Meiklejohn et al., 2021).

5.2.5.4 Computers Used for Reading

In teaching FP reading, computers offer learners multimodal learning experiences, including videos, animations, and audio recordings, that can enhance their understanding and retention of reading materials (Rose et al., 2014; Spector, 2015). Computers also provide FP learners with interactive reading activities such as games, quizzes, and puzzles that promote engagement and motivation (Kamil et al., 2011).

As illustrated by Table 5.6, there is little use of computers for reading in special schools in Gauteng. This was indicated by 33.3% of respondents who disagreed with another 26.1% strongly disagreeing that computers were readily available for reading in the FP. Only 16.6% and another 23.3% indicated that computers were available for reading.

5.2.5.5 Parental Involvement in Reading

From Table 5.6, most respondents, 38.7%, strongly agreed that parents supported FP reading in special schools. Another 26.5% of respondents disagreed that parents were actively involved in FP reading. However, 22.4% of respondents to the survey strongly agreed that parents were involved in FP reading. The remaining 12.2% of the respondents shared a similar view. Research findings confirm that parental involvement in FP reading yields several advantages. It can strengthen parent-teacher relationships and promote a collaborative approach to supporting learners' reading development (Henderson & Mapp, 2002).

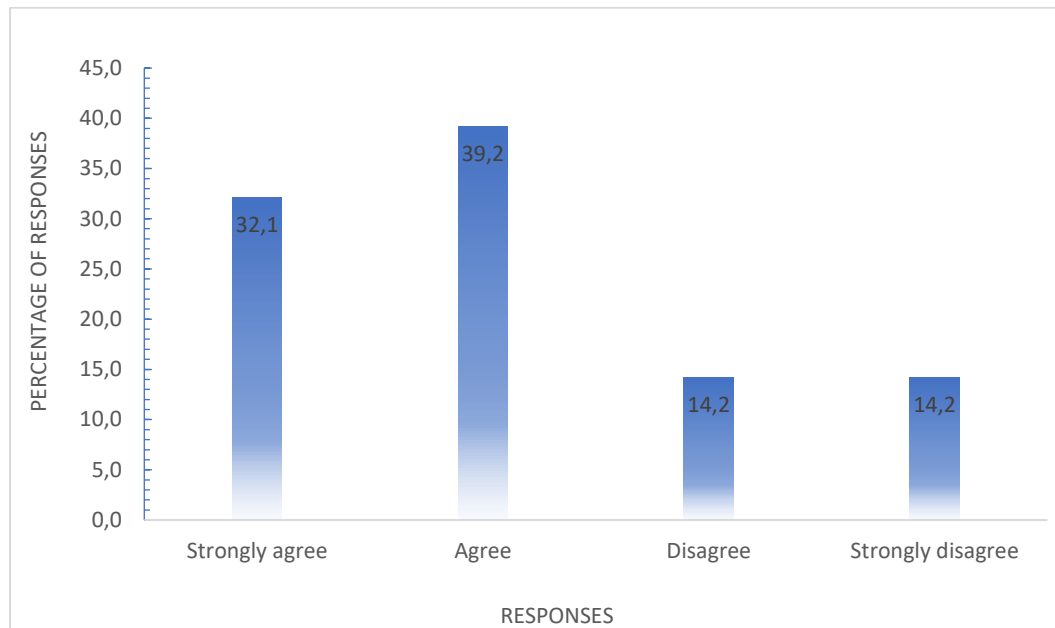
5.2.5.6 Class size for Reading in the Foundation Phase

Class size is a factor that can influence how the reading teacher will decide to employ reading instructional and intervention practices in the classroom. Related to this study, smaller classes enable the FP teacher to provide more individualised reading support to learners with mild intellectual developmental disorders. However, it is not the teacher who decides on the size of the class, but the school.

Figure 5.13 shows that only a few respondents, 14.2%, disputed this claim that class sizes in the FP in special schools are small and manageable. This is contrary to earlier research results, which found FP classes in South Africa too large to manage (Gopie, 2017). These views are further expressed in Figure 5.11 below.

Figure 5.11

Reading Class Size Reasonable and Manageable



5.2.5.7 Support for Reading Teachers

It is clear from Table 5.6 that 36.3% of respondents disagreed, with another 25% of respondents strongly disagreeing that they were getting all the support they needed for FP reading. However, 15.9% of the respondents strongly indicated that they received all the support required, and the other 22.7% also “agreed” that they were getting it. Teaching learners with MIDDs often requires collaboration with other professionals such as psychologists, therapists and occupational therapists (Friend & Cook, 2010). The results here show that such collaboration and support are lacking in special schools in Gauteng.

5.2.6 Summary of Quantitative Results

In summary, the quantitative results in this section have demonstrated that the teaching of reading is not the same in all special schools in Gauteng. The results confirm this, indicating that teachers in the Foundational Phase do not employ instructional and interventional practices similarly, as there are some contextual factors to consider. However, major factors such as reading policy, reading curriculum, intellectual developmental disorder, resources, and class size clearly influenced

reading instructional and interventional practices employed by FP reading teachers in special schools. As part of a complex system, the special school is the host and therefore influences these factors, as shown by the conceptual framework. In the end, this influences the reading instructional and interventional practices employed by the teachers to teach learners with a mild intellectual developmental disorder to read. In the next section, results from qualitative data sources are presented.

5.3 RESULTS RELATING TO QUALITATIVE DATA SOURCES

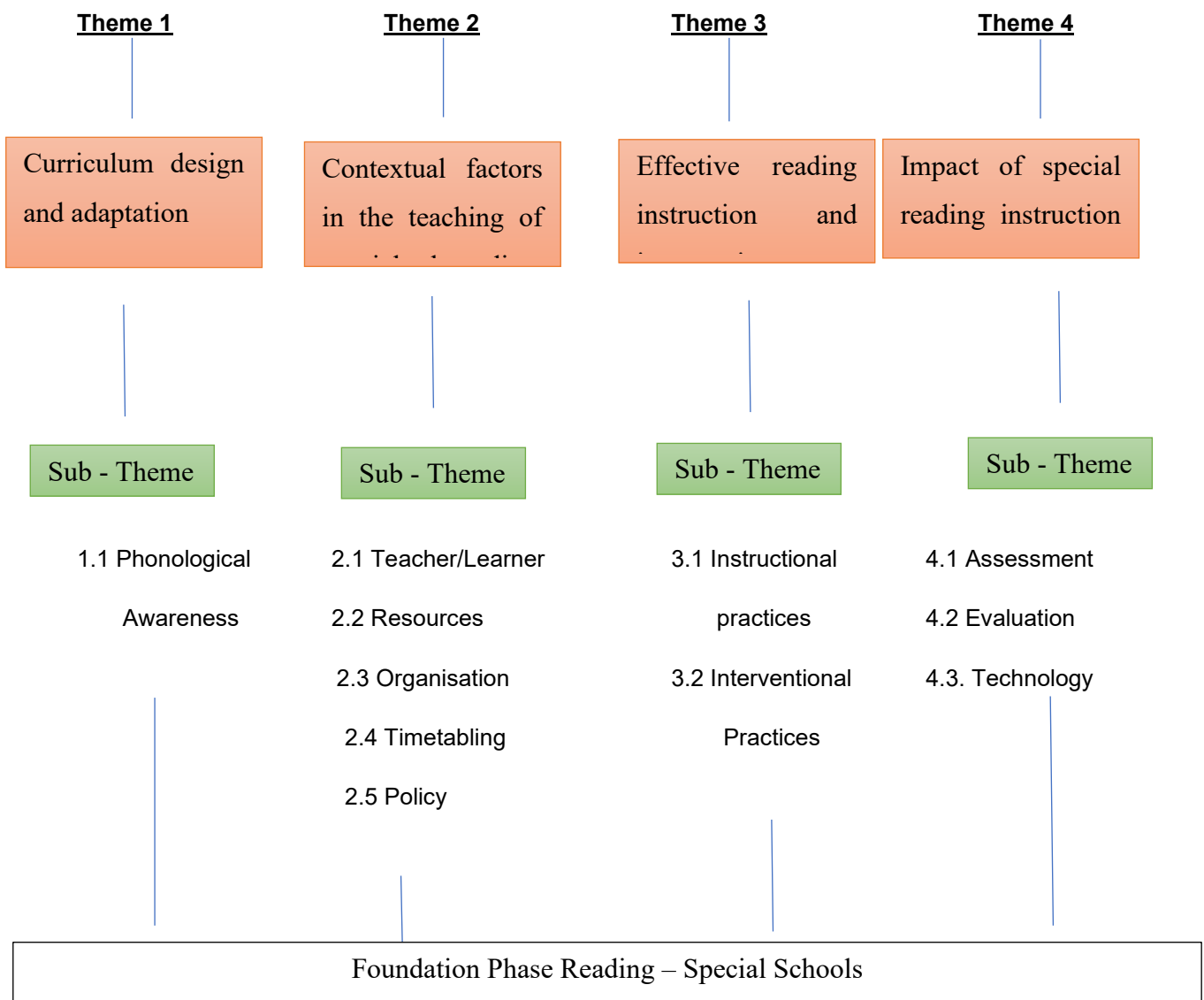
The previous section presented quantitative results of the mixed methods study. The results included biographical data of teacher-respondents in the survey, results on reading instructional practices employed in the FP, and the reading interventional practices for learners with mild intellectual developmental disorders in special schools in Gauteng.

This section presents the qualitative results of the study, highlighting the key findings of the investigations. The qualitative data was gathered through reading teacher interviews, principal/department head interviews, observation of the reading environment, document analysis of class records for FP reading, and some open-ended responses from the survey. Both inductive and deductive thematic analysis approaches were followed as outlined by Cloufield (2023) and Dawadi (2020). First, thematic results of structured interviews with FP reading teacher participants and semi-structured interviews with special school principal-participants are presented. This is followed by presentation of results from classroom observation and document analysis, leading to a chapter summary and integration of quantitative and qualitative findings.

5.3.1 Results from Teacher and Principal Interviews

The analysis of the data collected from the 16-teacher participant and ten principal participant interviews in this study revealed four distinct themes (Figure 5.12) that capture the complexities of teaching reading in the FP in special schools. These themes, which emerged from a combination of inductive and deductive analysis, provide a clear understanding of the participants' experiences, challenges, and perspectives on teaching reading to learners with intellectual developmental disorders.

Figure 5.12: Summary of themes and sub-themes



The four themes are FP reading, curriculum design and adaptation, contextual factors influencing reading instruction and interventions, effective reading instruction and intervention, and the impact of special reading instructional and intervention practices. These interconnected and interdependent themes reflect the complexities of teaching reading in the FP. Each theme comprises several sub-themes, which are presented in the following diagram. The findings are presented under each theme and sub-theme and linked to the research questions and the conceptual framework. When presenting the interview results, excerpts from the transcribed data are included to support the results.

Figure 5.12 illustrates the relationships between the four themes and their respective sub-themes, visually presenting the findings. The themes and sub-themes will be explored in greater detail in the following sections, starting with Theme 1.

5.3.1.1 Theme 1 Foundation Phase Reading Curriculum Design and Adaptation

The FP reading curriculum is designed to provide learners with a solid foundation in reading skills, including phonemic awareness, phonics, fluency, vocabulary, and comprehension (DBE, 2011; Calderwood, 2023; Endo, 2024; Kaminiski, 2021). However, learners with mild intellectual developmental disorders require curriculum adaptations to ensure they can access and engage with the reading material (DBE, 2011). Using modified reading material, such as simplified texts, teacher-designed reading material, or visual aids designed by the teacher, can help learners with MIDDs access reading content (Browder & Spooner, 2011; Whitbred et al., 2021).

Theme 1 reports on the reading curriculum currently followed by teachers in the FP in special schools in Gauteng. The related sub-theme, phonological awareness derived from literature, is also discussed in the sub-section. Table 5.7 summarises the inclusion and exclusion criteria considered for Theme 1 and Sub-Theme 1.1.

Table 5.6

Inclusion and Exclusion Criteria

Theme 1 Foundation Phase reading curriculum		
Sub-theme	Inclusion criteria	Exclusion criteria
Sub-theme 1:1 Phonological awareness – basic skills	All basic reading skills	Written work including comprehension.

During the interviews, teacher participants highlighted the reading curriculum content they teach learners with mild intellectual developmental disorders to master. The participants identified phonics in most cases, as well as letters, decoding, fluency, words, and sentences. All are foundational reading skills should be taught to learners first, as they learn to read (Marais & Wessels, 2020). However, it was pointed out by

one female teacher participant that there was no endorsed special reading curriculum for the FP in special schools:

Our learners when they come to special schools, they have underlying disabilities, because I feel we should engage them more in reading activities. So that we can break that. I feel there should also be special programs for them which are concerned about reading. (JE 28:37-38)

As such, reading teachers in special schools design their own content to accommodate the needs of their learners. Teacher participant EN9 also raised the same point during the teacher interview, commenting:

Usually when they come during the first year, in fact we say every term, we have a story, it's, when we pick the phonics, sounds that the learners are supposed to know, we drill those phonics sound first and then we pick words from that story. We read the story, and then we pick sentences from the story. (JE 28; 22-23: EN 9:12-13)

Another teacher-participant (GE 10:10) also indicated the focus on phonics and the alphabetic principle: *"Right now, we are on phonics yes, the pronouncing of the alphabets and the words (GE 10:10)."*

Alphabets here meant the letters of the alphabet together with the sounds they represent. This was also pointed out by SE 16:12, who added: *"Pronunciation of the words and spelling"*, and GW 20:11, who also noted spelling.

The FP reading curriculum also includes the teaching of vowels, consonants, and rhymes as indicated by other well-experienced participants:

There are those who cannot say a word, meaning that they still need the foundation, a part of it. The vowels, semivowels, consonants, so that they can be able to build some words. And after that, they can maybe try, because we cannot just leave them as they are. (VOO2:13)

The point raised by the participant here is that struggling readers who cannot read a word have to be taught, and not to give up on them. In this regard, what to plan for instruction and intervention for such learners depends on the reading teacher. For

example, one more experienced teacher indicated that different aspects of learning to read should inform the reading curriculum. The teacher–participant stated that:

“I come with a big book, and in that big book there are so many things. There is a story inside, questions and answers, there are rhymes, there are so many things (Teacher participant VOO1:54).”

5.3.1.1.1 Summary of Theme 1

The theme, “FP reading curriculum design and adaptation”, has revealed that in Gauteng, special schools adapt the mainstream curriculum, as revealed by teacher participant JE 28: 37-38. No special curriculum is tailor-made for learners with a mild intellectual developmental disorder in special schools. However, special school teachers come up with their own reading content, which they adapt from other FP work (Voo1.54: GE 10: 10). The participants highlighted story reading, phonics, spelling, rhymes, vowels, consonant pronunciation, alphabetic principles, and word reading as part of the reading curriculum.

The findings indicate that reading teachers in special schools design the reading curriculum for their learners with mild intellectual developmental disorders. Further, the findings from the teacher participant interviews suggest that the reading teacher has no option but to depend on the host environment in designing the reading content, teaching practices, and strategies.

Additionally, the reading teachers do not only depend on the host environment, but they are also resourceful, bringing whatever they can into the reading room. For example, the big book mentioned (VO1:54), or where the teacher uses their own cell phone to record learners when reading for fluency. The next section discusses what the teacher participants see as contextual factors influencing their teaching of reading in the FP.

5.3.1.2 Theme 2: Contextual Factors Influencing Teaching of Reading in Special Schools

Theme 2 reports on the contextual factors influencing how reading teachers in special schools design instructional and intervention practices to meet the needs of learners with mild intellectual developmental disorders in the FP. The sub-themes identified include the learner, the teacher, resources, organisational strategies, time, space, and

policy. Theme 2 and the associated contextual factors influencing the teaching of reading in special schools are depicted in Table 5.8

Table 5.7

Contextual Factors Influencing the Teaching of Reading – Inclusion and Exclusion Criteria

Theme 2 Contextual factors influencing the teaching instructions and interventions in special schools		
Sub-theme	Inclusion criteria	Exclusion criteria
2.1 Learners with special needs	MIDD learner	All other disabilities
2.2 Teacher Special Needs	Foundation Phase	Other teachers are not for MIDD
2.3 Resources for reading	Foundation Phase only	Resources not for reading
2.4 Organisational system	Special school	Mainstream school
2.5 Learning Reading Time	Learning to read time	All other activities except reading
2.6 Reading space	Reading room	All other classrooms
2.7 Reading Policy	Special schools only in FP	Policies not for reading.

5.3.1.2.1 Sub-Theme 2.1 Learners with Special Needs

The participants indicated that the FP learners they engaged with in special schools were learners from mainstream schools, learners struggling with reading, learners speaking different languages and from different backgrounds. These views are expressed in the following contributions that teacher participants made:

To be honest they don't enjoy it because from where they come from most of them are from mainstream schools. And they obviously couldn't read back then. They'd feel embarrassed being the only one or two in class who couldn't read. So, they don't enjoy it. They still feel embarrassed, they still feel small, even though they are in a special class with more people like them, but they still don't enjoy it. (EN 9:25-26)

“I see these learners struggling on how to read, most of them they can’t read, and they can’t spell (GW 20:8).”

One other teacher participant confirmed that most of the learners could not read. This is captured in the following excerpt: *“More than half of the learners in my class cannot read” (EN 9:8).*

Yet another participant also supported this, pointing out that many learners struggle with phonics. She said, *“In most cases, we find that we still have those who are not able to sound the phonics” (JE: 28:19).*

According to the teacher participants, special school learners in the study are learners from mainstream schools in Gauteng. These learners struggle with reading and are embarrassed to read, though they can speak English well. They cannot read and write English that well. In other words, these learners have low self-esteem when it comes to reading. Low reading ability highly correlates with intellectual disability, which is likely to influence reading instruction and intervention where necessary.

Multilingual classes were another factor highlighted as influencing the teacher’s planning for instruction and intervention in special schools. It was noted that learners speaking different languages could be found in one class. As a result, English was used as the medium of instruction when teaching reading in the FP in some schools. The participant pointed out that: *“The home language we don’t use it much because they came from, they speak different languages (JE: 28:15).”*

However, a reading specialist discovered that, due to their disorder, learners with an intellectual developmental disorder learn better once they get into a routine. The specialist commented:

If you have beginners in reading the first thing you should do is to get them used to a routine. That helps them to know what to do from point A to B. Because if maybe you are always changing the routine, they end up being confused, and then it’s like they are going back to square one. And then also I try to make my instructions to be like a bit simple so that they don’t have a lot of information to take in because that can end up draining their energy and they lose focus (EN 10).

One other teacher participant noted that some of the learners came from difficult family backgrounds, suggesting that their needs must also be considered by the reading teacher, and family background also influences the reading instructional and interventional practices employed by the teacher. The participant commented: *“The child lives with the family, always fighting, drinking, etc. So, it affects them”* (VOO1:83).

5.3.1.2.2 Sub-theme 2.2 Reading Teacher Special Needs

The reading teachers in special schools did not just become reading teachers for learners with mild intellectual developmental disorders. Some become reading teachers by having specialised in English/Afrikaans or other languages during teacher training and having had reading courses during training. Others were appointed to teach reading, and some were made to teach reading. The teacher participants also demonstrated diverse experiences and approaches in teaching reading in the FP. These experiences are captured in the following excerpts:

I was a science teacher. It's over 10 years ago, so we started reading in 2012. Being a reading specialist is something that started here in this school in 2011. The literacy project that I worked for since 2012 was from 2012 to 2017 when I came here at the school. I think that is when I saw that reading is the area of need. (EN 8:12-16).

A male participant in his early twenties and trained in English and Life Science added: *“Yes, so we started with reading when I saw challenges of learners being not able to read and write. So, they said, no, let us put you in this programme”* (GE: 10:6).

Another teacher participant with a B. Com degree and a teaching diploma narrated how she became a reading teacher in the school: *“I started in 2006, and I was a substitute teacher.”* (GE16:2).

Similarly, a teacher participant who had specialised in mathematics and science said almost the same: *“I was specialising in Maths and science. I am a Maths and Science teacher including the two languages which are English and Afrikaans”* (SE 16:5).

“Maybe they chose me because last year I was teaching the orientation in English and have been teaching Afrikaans for many years. I think that's how they picked me up to be a reading teacher” (SE 16:6).

A male teacher participant aged 30 years and qualified to teach accounting and economic and management sciences (EMS) made this contribution: *“We are allocated classes, because we do class teaching, we have the same class the whole day. You teach them everything”* (EN 9:6).

However, another male teacher participant in his early 20s indicated that he was recently appointed to teach reading, unlike all the other cases mentioned earlier. This is captured in the following contribution made by the participant: *“I started working as a reading teacher last year April, when I started working here at the school. I was appointed for reading and English”* (GE 10:2).

As Moats (2020) points out, the reading teacher remains the most important factor in FP reading. The reading classroom demands a teacher with extensive knowledge and skills across the components of word recognition, one who can stimulate learning, accommodate learners’ variability, and give correct feedback after interpreting reading errors.

5.3.1.2.3 Sub-theme 2.3 Resources for Reading

Reading resources are another sub-theme that emerged in this study, in that resources at hand dictate the course of the lessons to be followed. What the teacher plans to teach is determined by the resources available, which also influences the quality of teaching and learning. When it comes to reading material in special schools, teacher participants had mixed views on their availability and how this dictated the reading instructional and interventional practices they employed. For example, in the case of reading books, teachers expressed different views, but what stood out was that there were no specific reading books for the FP in special schools. In almost all cases, the teacher had to be resourceful and supplement books with other readable materials. The teacher participants expressed this view in different ways. A reading specialist remarked: *“The stories are there, but you can add, you can’t stick to the story. Then you add to what they have, what the curriculum is saying and expand, explore what works for your learners and concentrate on that”* (VOO2:23).

Another participant observed that any reading material could be used to teach reading and gave this example:

My learners are learning to read. Have got chart, I have got these books. I always use these books; I find them interesting, especially here there is a preamble. They are busy now, all of them are busy with the preamble from the book. (GW 20:10)

This means the classes would be taught to recite the preamble as reading instruction, and all this is a result of the reading material available, as she indicated. One other participant utilised charts as reading material in this special way, commenting:

Well, we started with charts. We got charts for alphabets, that help them to read, and then there's also sounds that we have on the wall, so that even if it's not reading time, but they are looking at the chart, they remember what we are reading. (EN 10:12)

A teacher participant with wide experience in teaching reading also indicated that she used a wide variety of reading material when she commented:

We have got written books; we've got small readers; we also make our own written material. Like we make all our own charts. We make it, we usually make them, we usually make them posters. There are a lot of things that we use. (JE 28:12)

Additionally, worksheets, oral activities like modelled reading, and reading aloud were indicated as other sources of reading materials. However, a different view was expressed by teacher participants who seemingly had resources for teaching reading and were well prepared for it: *"I have textbooks. Now it is the reading room [centre] and worksheets. But since moving to the new class, I am using most of the time, online material where the computer is used for reading"*.

A similar view was shared by another teacher participant who sounded very comfortable with the teaching of reading in the FP:

I have a reading corner in my class. I have got Thrass charts, each has their own. I have got site words on the walls for spelling, maybe when they must construct their own sentences if there are any words that the learners need to use. They usually refer to the sight words. (TN 1:14)

However, one principal was skeptical about the FP reading materials as she made this observation: *“Most of the materials are designed for mainstream schools” (P1:01).*

The library was also identified as a necessary reading resource for learners who are learning to read. A participant pointed out: “At the moment, I think there is a school library. I’ll say it’s once a term, we go to the small school library, so they choose books they’re going to read” (SE 16:11).

According to Laura Raskin (2021), “Libraries represent our most fundamental form of social infrastructure. They are places of inclusion, of common ground, a public meeting place that levels age and class.” Taking learners to the library is crucial for their exposure to diverse books and assistive reading tools, such as computers and the Internet.

5.3.1.2.4 Sub-Theme 2.4 Organising Reading Class

The way reading teachers organise their reading classes was revealed by some teacher participants who informed them that there was a need to consider the reading levels. The participants made this contribution:

You know, the level of their reading is not the same. There are those who can’t read and there are those one who are average. I put them in those specific groups. We use mixed groups or sometimes we pair them so that they can assist each other. (JE:28)

As pointed out by the participants, with knowledge of the reading levels of the learners, the reading teacher can group the learners and plan for their reading activities accordingly. The same was said about their cognitive abilities by one young teacher:

My learners sit according to their cognitive levels, (meaning reading levels) there are learners whom I know need more time and care. Then we have those who I know can read but just struggle with few words. They also are in a separate group. (GE 10:11)

One participant (EN 9:13) also indicated that a reading specialist in the reading laboratory attended some struggling readers who received individual attention. It is ideal for struggling readers in special schools to get individual help.

5.3.1.2.5 Sub-Theme 2.5 Reading Time

Teaching learners to learn to read is a process, as mentioned in the literature on reading (Enri, 2020). The implication is that time must be made for teaching reading. Since learners with a mild intellectual disability learn at a slower pace than peers in the mainstream school (Shree & Shukla, 2016) it means these learners need even more time. However, most participants indicated that reading time in special education was limited. This view was expressed by most teachers who said: *“Because I don’t see them every day and maybe I see them twice in a week”* (SE 16:32).

The reading time was seen as too little for meaningful reading, considering that the learners struggle to learn to read. Another participant also noted:

We have a computer department, but I don’t know whether much is being done. But they go there about once a week for reading. And maybe have more time, more reading time. My concern is whether we can have remedial reading on the timetable, so I know during this period its only reading and nothing else. (JE 28:41-46)

5.3.1.2.6 Sub-Theme 2.6 Reading Space

Another sub-theme emerged from the data analysis, the reading space. Following the interview with teachers, a reading room observation using a checklist was conducted. For learners with a mild intellectual developmental disorder, a reading space should be free from distractions and an ideal environment for learning to read.

Research shows that children are ready to learn in a safe environment (Bronfenbrenner, 1979) that is attractive to them. For example, sound walls are recommended for FP classrooms. Digital sound walls are more recommended as students can learn to read using videos, audio equipment, and pictures. Learners learning to read can look at the sound walls to learn phonemes. Research has revealed that interactive digital walls enhance learner engagement and motivation, cater to diverse learning needs, and provide equal access to all learners (Kumar et al., 2020; Singh et al., 2018).

Mirrors are also recommended for the reading classroom. Research informs us that mirrors help learners learn to read articulate gestures when making sounds (Hinkley, 2015; Parette et al., 2005). The same applies to other features like the furniture layout,

the u-shape, carpeting, and wall paints for learners with a mild intellectual developmental disorder, which should be considered for an FP reading classroom (Erikson, 1977).

When the researcher developed the checklist for assessing the 15 reading sites (classrooms) in special schools, the following results emerged (Appendix 5.6) and are presented in Table 5.9.

Table 5.8
Requirements for Reading Learning Space

Requirement	Observation		
	Yes	Partially	No
Space not crowded	13		2
Walking space	7	5	5
Carpeted floor	1	2	12
Painting mainly white	5	5	5
Painting cold colours	1	5	9
Projector (Sound walls)	5		10
Soft music	5		15
Rich print charts on phonics	12		3
Any other digital equipment	0	3	12
Mirror	3		12

The results show that most sites' reading classrooms were not overcrowded. Also, most sites represented rich print classrooms with enough charts. However, when it comes to technology, a few sites could at least manage a projector and whiteboard, as reported earlier in the quantitative results.

5.3.1.2.7 Sub-Theme 2.7 Reading Policy

Regarding the reading policy for the FP, it emerged that there was no specific policy to guide reading. This view was shared by a principal (P1:01), who expressed this point: *“An endorsed curriculum must be developed”* (P1-5.4.7).

“The school adapts the CAPS-TOC curriculum for the orientation learners, since there is no particular curriculum for the orientation classes in MIDD schools” (P1-5.5.1).

Based on these views, there is no specific reading curriculum for the FP and therefore no particular reading policy for the FP either special school unlike in the mainstream schools. The reading curriculum is only adapted from the curriculum and assessment policy statement (CAPS) and the technical occupational curriculum (TOC). It is worth discussing these interesting facts revealed by the results of the principal’s interview.

5.3.1.3 Theme 3: Reading Instructional, Technological and Intervention Practices

The third theme identified in this study relates to teaching reading to FP learners with mild intellectual developmental disorders in special schools. The following three sub-themes apply: reading instructional practices, reading interventional practices, and reading technological practices. Theme 3’s subthemes, inclusion and exclusion criteria are summarised in Table 5.10.

Table 5.9

Reading Instructional, Technological, and Interventional Practices – Inclusion and Exclusion Criteria.

Theme 3		
Reading instructional and interventional practices		
Sub-theme	Inclusion criteria	Exclusion criteria
3.1 Reading instructions and MIDD	Instruction for learners with intellectual disorders	Instruction relating to learners with a disability
3.2 Interventional practices and MIDD	Interventional practices for MIDD learners	Common intervention practices for learners with no disabilities
3.3. Technology and MID reading	Technology related to MID learners’ reading	Technology having nothing to do with MID reading

One thing that stood out was that reading instruction in special schools is multilingual, but mostly in English.

5.3.1.3.1 Sub-Theme 3.1: Reading Instructions and MIDD

This sub-theme reports on data pertaining to teaching practices employed by teachers in special schools to teach FP learners with mild intellectual disorders to read. Teaching reading was described in the literature review as a complex process, as illustrated by the conceptual framework. This means various factors interlink to influence the process of teaching reading. Teaching is an art that demands appropriate tactical instructions to yield the desired results. The teacher participants demonstrated that they employ many different strategies to instruct learners with mild intellectual developmental disorders. One teacher participant noted that it was strenuous to teach the learners as they easily forget due to their disability. This is what he said: *“The other challenge that I face is when learners forget to pronounce some words even though you have already pronounced the words to them. You have to repeat yourself time and again with one word. It’s strenuous”* (GW 20:44).

Listening to the learners when they read in groups and picking out learners struggling to read from the group is one instructional practice again cited by one of the teacher participants. This was highlighted in the participant’s contribution:

Firstly, they read in groups. And then I try and listen to them, because I know them like that now. I’m used to them. I try to listen if maybe there is Lezikho. Can I hear Lezikho’s voice? while they are reading? If I cannot hear Lezikho I then call Lezikho and then try to understand if Lezikho is improving or is just shy because they are reading in a group. (EN 10: 25-26)

Modelled reading was another instrumental practice. One participant indicated that it works for learners struggling with reading. In her contribution, she pointed out:

We will read together in class, so what I do is I’ll read a passage maybe, go through it a few times with them following me. Don’t look at me, look at the paper while I read. So, they follow it with words as I read. Once I’m done reading. Then I’ll ask Teppo, can you read the first sentence for us? Teppo will try reading. Then the next. Because they’ve heard me say the words. Yes, it should be a bit easier for them to pronounce and read words. (EN9:20-21)

Teacher participation (SE16:39) reiterated that no matter how much the learners would want to read, in the absence of a school library, learners had no freedom to choose books they wanted to read or could read. A participant made the following contribution:

But they try and they want to read. It's just. That's why I say we need a library. I think we need it because that's where a child can read. Did you choose a book? You can see this one, you can see this one. (SE16:39)

A teacher participant also pointed out that learners with mild intellectual development disorders have a short memory span. As such, there is a need to accommodate the disability in teaching reading, which is in line with previous studies that the learners lack concentration. To accommodate this, he suggested the following:

I'd say most of my learners are doing very well, but we have those who have short-span memory where the learner cannot concentrate, for more than 15 minutes. So, whatever you're saying after some time, that learner doesn't hear anything. In such cases I'd say teach for a few minutes, give them an activity or a break activity and a bit of fun. But that should be educational. (GE10:22)

Similarly, one reading specialist indicated that she has a motto that adds some fun to reading to keep the learning going. Otherwise, they will not learn anything. She does this to instil the skill of listening and seeing when reading, and she had this to say:

So, we have a motto that we use with them, that eyes and ears mix power. And when they say power, they touch the brain, because we want to show that the brain is less powered when you are looking but not listening and when you are listening not looking, which we call parity, when the learner will hear others reading and see what they are saying but is not looking. Eyes ears together, the powers. (EN8:54-55)

The results in this section demonstrate that teaching learners to learn to read should be fun, appropriate and effective to bring the results, with learners having a short concentration span. It was pointed out that short lessons are more effective when followed by an activity and a break. The results also show that the reading teacher should be very creative in engaging the young ones with an intellectual disability. Further, the results indicate the importance of a library so that learners can choose

books at their own level freely. However, these were just a few examples of instructional practices in special schools, and there are still many more such practices.

5.3.1.3.2 Sub-Theme 3.2: Reading Interventional Practices

Sub-theme 3.2 relates to the data generated on participants' views on reading interventional practices they employ and which they perceive to work for learners with a mild intellectual developmental disorder. The results demonstrate two things: First, interventional practices are employed by teachers as they help the learners learn to read, and secondly, there are also programmes that schools choose to adopt to help struggling readers.

One teacher participant indicated that peer tutoring as an instructional practice worked well for her classes, and learners worked in pairs; she would intervene where the learners struggled to read. This is what she believes in:

I would not teach them the same way I teach other learners because some of them do not even understand the alphabet, because with others need to be taken back to the basics and see letters of the alphabet on the chalkboard, it helps. I see improvement. (TN6:40).

Teacher participant TN1:24-25 pointed out that the first step was to do a baseline assessment to assess the learners' reading levels and then pick up from there. But what works better for struggling readers is to go back and start again from a lower level with the whole class. This was said in the contribution she made: *"But as a class, I prefer to start at a lower level with everyone so that we move gradually together"* (TN1:24-25).

In other words, the participant refers to scaffolding as an intervention that can benefit the whole class where most learners struggle to read. Participants highlighted assigning time for reading as a welcome intervention at some sites. As pointed out by teacher participant GW20:40: Previously we did not have reading classes. We only had languages, such as English. *"Now at least the school is trying by having those specific hours to focus on reading"* (GW20:40).

Besides these intervention practices, participants identified other practices that seem to work well for struggling readers in special schools. For example, one participant

indicated that some reading intervention programmes, especially Thrass and CAMI (P1.0:5.4.3), brought some improvement.

In the same context, respondents to the survey were also asked to identify intervention practices they employ that seem effective for learners with mild intellectual developmental disorders. One respondent (EN3) indicated that with her class of sixteen boys and three girls, the following was working:

I teach my learners phonological awareness using the Thrass chart and we practice blending sounds through material relevant to sounds learnt for the day. Thereafter, we identify the spelling words from the given text. We further discuss the meaning of words to help them understand the text better. And lastly, they do comprehension based on the text to assess the level of understanding. (EN3:3).

Further, when asked how effective these interventions were, she indicated that all interventions are quite effective, as they are like a chain. She responded:

All of them are effective as they are like a chain. They are all linked with one another up to the last step. If any of these steps are omitted then the learner has not mastered the skills of learning to read and the full skill of learning a language covers all four crucial skills in language which are listening and speaking, reading and viewing, writing and presenting and lastly language structures and convention. (EN9:10)

Furthermore, some participants indicated that reading like me, reading aloud, assisted reading and repeated reading worked for these learners. Extra lessons, one-on-ones with learners, involving a reading specialist, providing feedback after reading, peer tutoring, and working with a small group, where other interventional practices are identified as effective.

5.3.1.3.3 Sub-Theme 3.3 Reading and Technology in Special Schools

Technology in reading is another sub-theme that arose from data analysis; most participants indicated that visuals were the only solution for learners struggling with letters. Relatedly, assistive technology for reading was cited by most participants as an effective intervention and key to FP reading in special schools. Their views are captured in the following excerpts, where one participant noted on using WhatsApp:

If these learners can use the formal language in their WhatsApp, this WhatsApp can help them in writing and reading. If they can use formal language in their WhatsApp, they will not have too many problems in classes or at school. Because they always have their devices with them. It's technology that we cannot ignore. (GW20:48)

Another teacher participant added that computers worked well for these learners, and said: *"These learners are more advanced, I would say. So, when they use a computer, somehow it gets in differently than when we are reading a book"* (EN9:15).

Teacher participant EN10 held the same view that technology was beneficial to FP reading and contributed:

I feel like they learn better with visuals as well because you know kids have got different learning styles. So sometimes we mostly use visuals because they see something they can understand better. So, videos, pictures, etc., help them. (EN10:31)

The same was said by a teacher participant who lamented the lack of use of technology in some special schools, indicating that it was useful for FP reading with learners with mild intellectual developmental disorders:

We don't have any technology that we are using. Projectors, tape recorders, you can see that nothing is working here. It can work for them because it's interesting. They will feel like they are on the higher level as well. They will want to learn. They will also be interested in technology and all that. And our learners are very good at technology. That's the other thing. And they are busy using their phones. (GW 20: 30-31)

A reading laboratory with reading programmes was also cited as the best for learners learning to read. A reading specialist, when asked to respond to how the school was embracing technology in reading, indicated that this was the only way to go, as was demonstrated by the Department of Education:

I feel like our school is doing a lot in this regard, except for some contextual factors. For example, the Department provided or donated that new computer lab to us. There is a lot that we can do there. The school just needs to put it into

function because it has lots of programmes that can assist learners in all areas of need. (EN8:27-28)

Again, principal participant (P1) weighed in on the importance of using technology in reading in special schools. She remarked: *“Learners love and understand technology better than reading from books. Therefore, we utilise the CAM1 programme to assist them”* (P1.01:5.5.4).

Participant EN3 stated her view as follows: *“Foundation Phase learners learn best through having fun. Online educational games teaching learners spelling and phonological awareness would be helpful”* (EN 3:11).

Our result on the use of technology suggests that special school teachers highly regard assistive technology in reading as beneficial to struggling readers. The finding at least suggests that using technology to learn to read is one of the best instructional practices to employ with learners with mild intellectual developmental disorders. If fully implemented, the learners struggling with reading can benefit.

5.3.1.4 Theme 4 Impact of Teaching Reading in Special Schools

The theme reports on the impact of teaching FP reading in special schools to learners with a mild intellectual developmental disorder as viewed by the reading teacher participants, reading specialist, and principals in these schools. The related sub-themes: assessment, analysis, reporting and evaluation will be discussed. Theme 4’s sub-themes, inclusion and exclusion criteria are depicted in Table 5.11

Table 5.10

Summary of the Criteria Used in Selecting Items

Theme 4 Impact of teaching Foundation Phase reading in special schools		
Sub-theme	Inclusion Criteria	Exclusion criteria
4.1 Assessment of reading	All FP assessments	No Exclusion
4.2 Analysing results	All FP Assessments	No exclusion
4.3 Reporting	Learners, parents, school	Other stakeholders

4.4 Evaluation	Foundation Phase reading	Other Phases

5.3.1.4.1 Sub-Theme 4.1 Assessment Of Reading in the Foundation Phase

The participants indicated that they assess reading differently, with some assessing it as a component of the language subject and others assessing it on its own. The results demonstrate two things: first, there is ongoing assessment on FP reading in special schools, but there is no common policy to inform assessment compared to mainstream FP reading. Also, the findings from documentary analysis further complement these findings as they confirm that reading is not assessed as a stand-alone subject in the FP in special schools. For example, one participant, a reading specialist (EN8), commented: *“Even though there isn’t anything that we are formally assessing reading, but the reading of the learners is assessed per term to see how far they have gone”* (EN8:43).

Further asked if the learners were assessed according to a benchmark level, the specialist responded: *“There isn’t a thing like that with the reading, the way we assess it; it’s normally how much has he improved or has he improved in reading by giving them different levels of books”* (EN8:46).

Another participant (SE16:23) indicated what she assessed reading and that she did this monthly: *“First, I check do they pronounce words correctly ... once a month, I mustn’t lie, once month. Because I see [them] twice in a week”* (SE16:23-25)

However, yet another participant indicated how she assessed reading in the FP in her own way, commenting: *“Each term, every term, twice a term, we have oral and reading. Yes, and, we have unprepared speech where they are now given a topic to say what do you know about this?”* (AE10:20).

It was, however, made clear by a principal participant (P1:01) how FP reading is assessed in special schools: *“We do not assess reading separately but we hold (SAT) meetings once per term to discuss the performance of learners in the phase and come up with strategy to improve reading”* (P1.01:5.53).

These views tie up well with those of a reading specialist who pointed out that learners’ progress was assessed once a term. However, the specialist further indicated that she

does a baseline assessment at the beginning of the year and whenever a new learner comes to the school. This is captured in the following excerpt:

For identification that goes with screening assess and then you identify and support, of which in my case and with other educators I work with, first, before I start with the learner, it's very important that I find out on which level the learner is reading at. I always put it in terms of levels. I will rate it on the scale of 1 up to 5. I do that with every new learner that I receive. Mainly the Foundation Phase ones I start with. (SE16:23-24)

Another aspect of assessment, but very different from reading, was suggested by another reading specialist, who indicated that it was important to know the learner coming for reading. This means that knowing the learners well leads to better teaching and learning, as the teacher will design instruction and intervention to meet the needs of the FP learners. The specialist expressed these views: *"Just a short interview will get them a good start, or maybe sometimes we don't go that far because of time. But now I do create time, I see through them"* (SP00:77).

5.3.1.4.2 Sub-Theme 4.2 Analysis of Reading Results

This section will dwell on the feedback reading teachers get from their assessments of the FP learners in the special schools. Participants expressed different views when asked how many learners they expected would read at grade level when they exit the FP. One teacher participant had this to say: *"Five out of twenty"* (SE16:36).

This means that only 25% of the learners could read at grade level in the end. Another teacher participant said the same, commenting: *"Maybe, I'll be lucky to have five more able to read, maybe it will just be five out of twenty"* (SE28:36).

Again, one principal pointed out why some learners will not succeed in reading at grade level: *"I am not sure how many learners; most of them struggle with reading. I cannot tell, maybe how many learners. But most of them are reading on the lower grade levels. They are not there"* (GW20:37).

There is a slight improvement, most learners are from schools where vernacular is home language, yet English is the language of reading here, they struggle with reading. Not every learner in orientation class would read at grade level because they are functioning at different cognitive levels. (PO.01:5.56)

However, some participants were quite positive about their teaching and expressed the view that their learners would succeed in reading:

Only less than ten learners, who fail in my grade, the orientation two, none of the learners fail. In orientation one, the foundation of the school, only one failed. And it's those learners that you can see that they really struggled, but most of the learners are performing well. (EN8:39-40)

Some participants, such as EN10, who had a few months of experience teaching reading, were optimistic that the learners would be able to read, when she shared her experiences: *"So, I have got like 14, so I would say 10."*

This comment suggests that 71.4% would be able to read at grade level, which is a good achievement. However, the document analysis results show that class records over two years indicate that 46.1% of FP learners can read at grade level. It remains unclear from these results how many FP learners are making good progress in special schools in Gauteng, since they are not assessed at a benchmark level. But still, 46.1% of struggling FP learners being able to read at grade level at the end of the FP, as indicated by the reading records, is quite a significant and commendable achievement.

5.3.1.4.3 Sub-Theme 4.3 Reporting on Foundation Phase Reading to Parents

Most of the participants indicated that they reported to parents on learners' progress in reading but were not happy with the support they received in turn. One participant commented:

I think maybe it's because of whatever happened before they came here. The feedback that parents get from their mainstream schools, that your child can't read, your child can't do this and then, your child has to be taken to a special school. So, they are not yet comfortable. (TN8:57)

Another teacher participant said almost the same thing, that parents seemingly appear not keen about their children's reading:

If we can get the parents to be more involved. The lack of involvement from parents, I think, plays a major role of where these learners are. They get home, they change and go out, and their parents don't sit them down to help them with their homework. Even when you call and ask the parent doesn't even check how the child is doing. But if parents could just give themselves time, sit down

with their children one on one. Remember I have 17 learners. And when they go home, it's just their child, so it will be easier if parents meet us halfway, which they don't. (EN9:26-28).

From this contribution, the situation becomes clear, what it means for the learner with a mild intellectual development disorder. Teacher participants JE28 and SE16 went even further to point out that parents had no interest in the work of learners in special schools. Their views are also captured in the following excerpts: *"We can give homework, but some parents will help the learners, some other parents are very busy, they come late"* (SE 16:38).

"Unfortunately, we don't get feedback. Because in most cases even if we give them homework, it seems there are very few who can monitor it. There are very few parents who show interest" (JE28:39).

One other principal added and shared this view: *"The parents are not helping their children with reading because they feel that it is the duty of the teachers to teach these learners. Most of them are negative when it comes to reading"* (JW P1:23).

Yet another principal said the same, as captured in this contribution: *"I think those parents, they also need to be capacitated. To say 'parent, please be interested in your children's school work' So here at school, parent involvement is lacking, I don't want to lie"* (JS PS: 36-37).

From these results, most participants indicated that they were not getting enough support from their parents. However, parental support is important in the FP when a child is making a transition from home to school. Both the parent and the teacher are teachers. Therefore, the result has some implications for the instructional and interventional practices the reading teacher might employ. For example, the teacher might give up on reading homework to the disadvantage of the FP learner.

5.3.1.4.4 Sub-Theme 4.4: Evaluation of Foundation Phase Reading Programmes

The participants expressed mixed views about the impact of the reading curriculum they offer in the FP in special schools. When asked whether reading barriers were being broken or whether learners with mild intellectual developmental disorder were benefitting, some participants acknowledged progress, others were not sure, and

some kept in line with similar studies in the past and believed that there is little progress in reading in primary schools. These views were captured in the following contributions made by the participants: *“There is improvement and there is progress at the end of the day. Just that it needs someone who’s there to supervise, who’s there to monitor, to say let’s keep going guys”* (GE 10:26).

Another teacher participant was not confident that the teaching itself would yield good results in the end. She pointed out: *“I really must have skills, reading skills. Reading skills go step by step. Teachers must be trained to teach to next level. So, we need to be trained”* (SE16:34-35).

Similarly, another teacher participant pointed out that barriers in reading were not being overcome, as learners do not continue to read at home. She said this when asked if barriers to reading are being overcome:

I don’t think they are, because the only time they read is when they are at school. Once they leave the class, reading is done. They’ll do it again tomorrow in the class. So, I wouldn’t say these barriers are being broken. (E9:24)

The same view was also raised by teacher participant GW 20, who also commented that barriers to reading existed and said: *“They still exist. The barriers to reading, there are so many things that block learners from that ability to read”* (GW 20:38).

One principal, however, expressed the view that some progress was being made. She noted: *“There is slight improvement. The learners need to be drilled more”* (P1.01:5.4.4).

However, one reading specialist noted that it was not that easy to judge if there was any progress learners were making in reading, since reading development is a dynamic process. She remarked:

Hey, that one is surprising. You know, there are some area of study there. Because I have noticed with some learners when you think you haven’t made any difference and let it go. Then later in a year or months down the line you discover that the learner can read. (EN 8:56-57)

This finding cast a new light on the impact of teaching reading in the FP in special schools. The results confirm that something is happening in FP reading, although

teacher participants on the ground are not seeing the progress they would want to see. The results from this qualitative analysis, when combined with the results of quantitative analysis, will further indicate what needs to be done to improve the teaching of FP reading in special schools to achieve the desired goals.

The results also suggest that it is difficult to make a conclusive judgement on learners' progress in mastering basic reading skills since it is a cognitive process, like the example of a struggling reader, who, from nowhere, could read. The researcher also had a similar experience of cracking the code in learning to read in grade three when he learnt that in reading, the letters ba-be-bi-bo-bu represent the sounds we make when we speak, the first letter sound mattered, and all the other letters just supported the first letter to make the word.

5.4 CHAPTER SUMMARY

Key findings emerged from the review of the data gathered in this study. First, there is no clear reading policy for the FP in special schools; all the teaching strategies are adapted. Second, in special schools, reading is not timetabled in most cases; it does not stand as a subject on its own. Teachers again expressed the view that there was no time to teach reading, citing too much work and no time to teach reading. The solution was for FP teaching to focus on reading. Third, it was highlighted that learners with mild intellectual developmental disorders can also learn to read, though they struggle. Fourth, it was pointed out that parental support is lacking. Fifth, the need for a library aligned with reading in special schools was cited. Sixth, technology was cited as the way forward for learning to read in special schools. Lastly, the findings indicated some reading going on in the schools, although learners are not yet there. The results demonstrated that it was also not accurate to judge the ability of learners to learn reading by mere figures. Learning to read is cognitive, and some incapable learners can just unexpectedly demonstrate the ability to read. These findings will be discussed further in the next chapter.

5.5 INTEGRATION OF QUANTITATIVE AND QUALITATIVE DATA

The study used a mixed methods approach to explore teaching reading to learners with mild intellectual developmental disorders in special schools in Gauteng. The quantitative and qualitative data for this investigation were collected separately, and analysed, and are integrated in the next chapter through a comparative analysis.

5.5.1 Comparative Analysis

Comparative analysis is a research method that involves comparing two or more datasets, methods, or theories to identify similarities, differences, and relationships (Creswell, 2014). In the context of this mixed-methods research, comparative analysis was used to integrate quantitative and qualitative data, allowing the researcher to triangulate findings and increase the validity and reliability of the results. Quantitative and qualitative results were compared to identify areas of convergence and divergence and integrated to provide a comprehensive understanding of the research problem. For example, comparison of quantitative and qualitative results in this study showed some convergence and relationships, as shown in the table below. The convergence of the quantitative and qualitative results is depicted in Table 5.12 below. These converging findings and the diverging and related findings are discussed further in Chapter 6.

Table 5.11
Convergence of the Quantitative and Qualitative Results

Survey- Questionnaire items (Quantitative)	Interviews- themes and sub-themes (Qualitative)
Item 5: Teaching reading in the FP	Theme 1: FP reading curriculum
Item 8: Basic reading skills	Sub-theme 1.1: Phonological awareness Sub-theme 1.2: Basic reading skills
Item 6: Time for formal reading 10: Interventional strategies	Theme 2: Contextual factors influencing instruction and intervention practices
Item 1: Class size 3. Learners taught	Sub-themes 2.1: Learner with special needs
Item 21-27: Reading teacher	Sub-theme 2.2: Teacher-special needs
Item 18: How school supports FP reading	Sub-theme 2.3: Resources for reading
Item 13: Organising reading classes	Sub-theme 2.4: Organisational system
Item 6-7: Reading time allocation	Sub-theme: 2.5: Teaching reading time
Item 18: Learning reading environment	Sub-theme 2.6: Learning reading space for MID

Survey- Questionnaire items (Quantitative)	Interviews- themes and sub-themes (Qualitative)
Item 5: How reading is taught in special schools	Sub-theme 2.7: Reading policy
Item 8: Teaching reading in special schools	Theme 3: Teaching FP reading in special schools
Item 8(a): Reading instructional practices	Sub-theme 3.1: Instructional practices
Item 10: Reading interventional practices	Sub-theme 3.2: Interventional practices
Item 8(a)(q): Reading technology	Sub-theme 3.3: Reading technology
Item 3: Impact of teaching FP reading in special schools	Theme 4: Impact of teaching FP reading in special schools
Item 3(a): Assessing FP reading	Sub-theme 4.1: Assessment of learning to read
Item 3(b): Reading progress in FP	Sub-theme 4.2: Analysing reading results
Item 8(n): Reporting reading progress	Sub-theme 4.3: Reporting learner reading progress
Item 3(b): Reading ability when exiting FP	Sub-theme 4.4: Evaluation of reading programme

CHAPTER 6: DISCUSSION OF THE FINDINGS

6.1 INTRODUCTION

In the previous chapter, the quantitative and qualitative results of the study were presented. Tables and graphs were used to summarise the quantitative results, and themes and sub-themes used to summarise qualitative data. In this chapter, the discussion focuses on the quantitative and qualitative findings, which are integrated in the discussion through a quantitative-qualitative comparison (Creswell, 2014). The discussion incorporates the literature control and the integration of the conceptual framework that were reviewed in Chapter 2, and in Chapter 3. The discussion highlights areas of convergence, divergence, new insights and silences of the findings.

6.2 INTEGRATED DISCUSSION OF RESULTS AND CONCEPTUAL FRAMEWORK

The discussion of the findings follows the framework outlined in Chapter 5 and the conceptual framework in Chapter 3. The discussion in each section commenced with drawing out quantitative and qualitative results, and then discussing convergence, contradictions, new insights, silences and significance of the finding to classroom practices.

6.2.1 Foundation Phase Reading in Special Schools

The findings of the current study indicate that reading is not a stand-alone subject in special schools. As a result, teaching reading to struggling readers in these schools' FP present significant challenges, partly because reading is not allocated dedicated time slots in the timetable. Instead, it is often integrated with language subjects like English, making it difficult for teachers to provide focused support to learners who need specialised and extra help. This was revealed by the results from the survey which demonstrated that only 4.3% of respondents indicated that they were teaching reading as a stand-alone subject in the FP. In many cases, as reported by the survey, reading was included in the language subjects. This was contrary to what teacher participants in the structured interviews wanted: to see reading as a stand-alone subject in special schools. Again, the findings from the qualitative results reveal that teachers in special schools are eager to teach FP reading (JE: 1) if allocated more time to do so. Given enough time to teach reading in the FP, it was indicated that the barriers to reading can be overcome. FP reading teachers preferred concentrating teaching on reading

and numeracy only rather than overloading the struggling readers with many subjects at this stage. Guarding against overloading struggling readers is emphasised by the cognitive load theory in the conceptual framework. The literature review highlighted the basic reading skills that FP learners are supposed to master to read (NRP, 2000), and that's what teachers want to see and not so many other subjects as is the current practice.

Learning to read has been highlighted as the focus of primary education in the FP (Gibb, 2022; Raimjanovna, 2023; Sparks, 2021; Wyse & Bradbury, 2022). Yet, in the current study, it was found that it is not a stand-alone subject or even timetabled. In other words, the result informs us that there is no common approach in the teaching of reading in the FP in special schools in Gauteng. This result has implications for policy. If the struggling reader is not learning to read in a referral school, it means there is nothing to learn at school. It means, the education system would have disadvantaged the learner for life. It was also highlighted in literature that once learners get reading right in the FP; reading transcends all forms of learning (Gumede & Boakye, 2020; Sparks 2021). The implication is that it is not necessary to overload the struggling reader in the FP with subjects if they cannot read. Rather, focus on learning to read only. Once they can read, they then start to read to learn in those other subjects.

6.2.2 Foundation Phase Reading Curriculum

The results indicate that there is a silence on an endorsed reading curriculum for the FP in special schools. This was revealed by one of the principals when interviewed. The quantitative results also show that the teachers adapt what to teach from the mainstream reading curriculum. Alternatively, teachers design their own work they deem as appropriate for learners with mild intellectual developmental disorders.

Despite these challenges, the findings further indicate that the foundational reading skills (Sargiani et al., 2021) are being taught in the FP in special schools. This was revealed by both quantitative and qualitative results. Teacher participants confirmed that they taught phonemes, phonics, decoding, alphabetic principle and comprehension, which are all foundational skills as suggested by Ehri (2020). The foundational reading skills are also incorporated in the conceptual framework as part of the complex system when teaching children to read. The challenge as pointed out

from the results was that teachers were not getting the chance and time to teach these basic skills since the FP timetable in special schools was packed with other subjects rather than reading. The findings are also silent about the current framework for teaching FP reading in African languages (DBE, 2024), given that English is the preferred language of teaching reading due to the diverse nature of languages in special schools in Gauteng.

6.2.3 Time Allocation for Teaching Reading

When it comes to time allocation for learning to read, both the quantitative and qualitative results concurred that FP reading was not allocated enough instructional time as it was not timetabled. In the survey, most of the respondents were concerned that reading was being taught in other subjects and not as a subject on its own. Whitbread et al. (2021) posit that teaching learners with a mild intellectual developmental disorder demands direct instruction and more time. In addition, Allor et al (2010) recommend explicit, consistent comprehensive and direct instruction which is phonics-based over a substantial period when teaching these learners to read. Time allocation for teaching reading is the responsibility of the school as the organisational structure in the conceptual framework. The mere fact that teachers complained about lack of time to teach reading and that schools do not allocate reading on the timetable on its own, suggest that there is no effective teaching of reading in the FP in special schools.

The FP reading programme in mainstream schools of South Africa is known as and called Literacy Learning Programme (DoE, 2008). The aim is to teach the foundations of reading, writing and basic literacy. The programme's core elements are reading and writing focus time, listening and speaking, writing and additional languages. The time allocated for the whole programme is 1 hour 50 minutes per day which is a total of 9 Hours 10 Minutes in a week.

Even if this programme was adapted for special schools, it is already packed. The programme stipulates that only one hour only should be dedicated to reading and writing every day (DoE, 2008). The finding that the FP timetable is already packed with other subjects, inform us that the teaching of reading in special schools is not being prioritised. Therefore, policymakers should seek ways to address this need.

6.2.4 The Foundation Phase Learner in Special Schools in Gauteng

Study findings indicate a strong link between quantitative and qualitative results in confirming that special school learners in the FP are learners coming from mainstream schools. These are boys and girls who are struggling to read, learners speaking different languages, and varying in ages. Both results are in line with previous findings (Girirajan, 2020; Shaprio, 2019), confirming that intellectual disability affect boys and girls. Again, the results converge to indicate below-average memory functioning in these learners (Shree & Shukla, 2016), and therefore, learning to read at a slower pace. This study's outcomes further reaffirm established research trends which confirm that boys tend to struggle more with reading than girls (Hutton et al., 2015; Krashen, 2017; Mullis et al., 2017; OECD, 2015; Smith & Wilhelm, 2017).

The new insight from this study is that the struggling reader in the FP is a learner who is overloaded with schoolwork that he/she struggles to learn to read. Furthermore, the findings reveal that the learner comes from a background where the parent shows little interest in the reading of their child. This is confirmed by results from both quantitative and qualitative analysis indicating that most teachers were concerned that parental involvement in FP reading was lacking. The learner, again, is in a reading class where learners speak as many as eleven other different home languages or more (Van der Mescht, 2018).

Furthermore he/she is a learner whose home language is IsiXhosa for example, but is assigned a foreign language, English (Pretorius et al., 2016; Prinsloo, 2021) to be the home language at school, and made to learn to read in that language (Spaull, 2017). Relatedly, the learner could be a foreign learner speaking a home language like Shona and learning to read in English, but in a class of twelve different languages. As such, the school as the host must decide on the language of instruction for FP reading. Lots of controversy surrounds use of English language (Pala & Hugo, 2022; Prinsloo, 2021) as the medium of instruction in schools in South Africa (Landsberg et al., 2017). Learning reading in the English language is often blamed for poor reading standards in primary schools.

Another insight arising from the qualitative findings is that intellectual disability blocks the learner from reading, leaving the special school teacher without direction. In turn, this influences the instructional and interventional practices that the reading teacher

employs with learners. In such cases, professional development workshops will help the reading teacher develop skills to tackle the problem.

Another finding is that there was a convergence of results reporting no overcrowding in FP reading classes. This finding sharply contrasts related research findings attributing poor reading in schools to overcrowding (Phala & Hugo, 2022). Therefore, overcrowding does not influence the teacher's reading instructional and interventional practices in special schools in Gauteng. This should be seen as a positive development in teaching reading in special schools. In the realm of FP reading instruction, small classes offer a transformative advantage for learners with mild intellectual developmental disorders. With reduced classes, teachers can provide personalised attention, tailored instruction, multisensory and adaptive teaching and nurturing support (Foreman, 2017), allowing learners to strive in a comfortable and inclusive environment (Bourke & Dunn, 2015). Small classes facilitate targeted phonics instruction. Teachers can focus on individual learners' phonemic awareness, decoding, and comprehension skills. Reduced classes are also ideal for differentiated instruction, emotional support and motivation (Foreman, 2017).

6.2.5 The Reading Teachers' Demographics and Teaching Background

The findings from both qualitative and quantitative analyses agree in portraying the profiles of the FP teachers in special schools in Gauteng. The findings show that the teacher profiles differ greatly in gender, age, qualification and teaching reading experience. Teacher profile is portrayed as teacher capacity in the conceptual framework (See Figure 4.9) and has an influence on the teaching of reading in the FP in special schools.

6.2.5.1 Foundation Phase Reading Teachers by Gender

Descriptive statistics were used to summarise the number of teacher participants teaching FP reading by gender. Gender has a substantial impact on teaching. According to Waejie (2023), gender influences teachers' biases in the classroom, and at a school level, on positions held by teachers. Previous research studies on gender have also revealed that 95% of primary school teachers worldwide are female (UNESCO, 2019), while 85% of early childhood education teachers are female. Regionally, 90% of primary school teachers in Europe are female (Eurostat, 2020), in North America, 82% of teachers are female, and in Australia, 85% of teachers are

female. In South Africa, 75% of FP teachers are female (DBE, 2020). This study also found more female teacher participants in special schools than males, as shown by Figure 5.2 in Chapter 5.

Only 28% of the teacher participants in the study were male reading teachers. This finding is supported by the work of Wenjia Li (2023), who posits that gender issues at the institutional level are reflected in the roles of educators, with more women as educators but more men as heads. Additionally, Wenjia Li (2023) acknowledges how gender roles influence teaching in the classroom, with women seen as prioritising diverse teaching methods.

However, the findings do not explain why there are more female teachers than male teachers in schools' FP. What is clear is that gender has some influence on the teaching methods the reading teacher employs, and this is likely to influence how MIDD learners respond to reading instruction in the classroom.

6.2.5.2 *Reading Teachers by Age*

The quantitative and qualitative findings both confirm that most of the FP teacher participants were in the age group 30-39 years, followed by 40-49 years, then 25-29 years, and young teachers under 25 years. Very few teachers are in the age group 50-59 years. As pointed out in the literature, the teaching of reading in the FP is a complex and multifaceted process, influenced by various factors, including the teacher's age. Teachers' ages impact their teaching style, experience, and effectiveness (Kyriacou, 2013). The implication here is that most teachers in special schools, the 30-39 age group, have established their teaching practice and gained experience in managing classrooms. It was highlighted in the literature that this age group is also more confident and creative in their teaching approach, incorporating innovative strategies and technologies.

These statistics mean that FP reading in special schools, and most cases, is being taught by capable teachers. In addition, young teachers below the age of 25 years bring a fresh perspective and high energy levels to the teaching of reading in the FP, indicating another angle of strength in the teaching of reading in special schools. However, in special schools, young teachers may have challenges with classroom management, planning, and adapting instruction to the needs of learners with mild intellectual developmental disorders, as was suggested by Wiggins (2015). This is

where the young teachers may benefit from mentorship and coaching to develop their teaching skills (Ingersoll & Merrill, 2017). The 40-59 age group is another boost for FP reading; the teachers in this age group have extensive experience and expertise in reading instruction (Day, 2017). Their weakness might be complacency and unwillingness to adapt to change and stay updated on the best instructional and interventional practices in the FP. This is how age influences the instructions and interventions employed by the teachers in the reading room. On another note, the findings discussed in this section also highlight that the information gathered in this study came from knowledgeable people, all trained as teachers, and with wide experience of teaching reading to learners with intellectual developmental disorders.

6.2.5.3 *The Reading Teacher and Experience*

Related research findings affirm that experienced teachers show greater effectiveness in reading instruction, as the NRP (2000) reported. Hanushcek et al. (2005) posit that teacher experience positively impacts learner reading achievement. Experienced reading teachers demonstrate better classroom organisation and management. Further, experienced teachers employ improved instructions and interventions as well as better reading assessment and feedback.

As mentioned, the findings from the current study show that reading in the FP is taught by qualified teachers with vast teaching experience. For example, up to 32 years of teaching experience were reported. Both quantitative and qualitative results confirmed that all teacher participants had some experience teaching FP reading.

The finding that reading in the FP in special schools is being taught by experienced teachers gives hope that they can do the work better than previously thought if they can get all the support needed. Teacher incompetence to teach foundational reading skills in South Africa due to a lack of training and experience was cited in the literature as a barrier to reading (DoE, 2008; Henning, 2016; Will, 2019). Therefore, this study cannot be cited as a barrier to FP teaching of reading in special schools in Gauteng.

6.2.6 *Diverse Reading Material and Resources for Foundation Phase Reading*

Resources for reading were another sub-theme arising from the qualitative data analysis, as well as an item investigated in the survey, and a component of the conceptual framework. Reading skills development for special school learners with

mild intellectual developmental disorders requires a supportive environment (Gambrell, 2015). This is the organisational system in the conceptual framework, as shown in Figure 4.9 above. One crucial aspect of this environment is the provision of diverse reading materials that foster engagement, motivation, and reading (Krashen, 2004). The findings in the current study highlight the need for more reading resources for the FP that are appropriate for the needs of learners with mild intellectual disorders. The finding is consistent with other research findings on reading that pointed out a shortage of reading books and a lack of reading materials in primary schools (Fleitch & Dixon, 2019; Mudzielwane, 2014; Phala & Hugo, 2022; Van der Mescht, 2018).

In addition, the findings of the current study indicate the shortage or absence of reading specialists in special schools. In the survey it was highlighted that only 35.7% of the schools had reading specialists. This finding is contrary to the purpose of special school in Gauteng, which is to provide specialist support in areas of need (DBE, 2020; DoE, 2001).

Again, the findings also reveal that there is minimal use of technology in reading. Though most participants acknowledged the importance of reading technology in teaching the struggling readers, the majority rather lamented the lack of computers in the reading room to start with. Existing literature in this regard reports on research findings showing that technology-based reading instruction can improve phonemic awareness, phonics, fluency, vocabulary and comprehension skills (Williams, 2023). To this should be added reading apps, recording apps, eBooks, digital texts, and digital walls that were not mentioned by teacher participants in the survey and interviews.

Further, the current study found that reading teachers in the FP were concerned about the absence of school libraries in special schools. Teacher participants in the structured interviews confirmed that libraries instil a sense of reading in the learner and could provide a wide variety of reading material from which the learner can freely choose what to read. In confirmation of this finding, Ellis (2022) found out that libraries can help children in the FP to read. As such, teacher participants highlighted the need for libraries in special schools catering to FP reading. Digital audiobooks and reading apps are recommended as useful tools to help struggling readers.

Relatedly, both quantitative and qualitative findings cast a new light on the fact that special schools were not taking advantage of social media, e.g., WhatsApp, for

teaching and learning reading. To this end, there is a need to explore further how the social platform can be used to enhance the teaching of reading in the FP.

Therefore, this study's insight is that no special reading materials are designed for learners with a mild intellectual disorder in special schools. Instead, FP teachers depend on their own materials to teach learners to read.

6.2.7 How Reading Classes are Organised

The finding here shows that reading teachers organise their classes in different ways. The majority, 35.7%, as indicated in the descriptive statistics in Chapter 5 (See Figure 5.3, mixed groups created for reading.) Another 30.9% of teacher participants indicated that they teach as a whole class, 12.2% created mixed groups, and the other 21.4% engaged individual learners. The findings from the qualitative analysis also indicate that reading teachers preferred ability grouping according to reading levels. It was also indicated that cases needing individual attention were referred to a reading specialist.

In this regard, one of the reading gurus of the time indicates that neither approach is likely to do much for children's achievement in reading (Shanahan, 2024). This view is supported by Hiebert (1987), who posits that grouping does not substantially affect learning and is only beneficial to the extent that it improves instruction in ways that can make a difference. For example, small group teaching matters when skills are being taught separately, close monitoring of learning is required, or work is differentiated. Optiz (2008) advocates for dynamic, flexible grouping that changes based on learners' needs.

However, as the number of groups grows, it becomes problematic for one teacher to manage them (Ford & Optiz, 2008). It was pointed out in Chapter 2 that one challenge that young reading teachers in special schools face is managing learners with difficult behaviour. Time is lost during the transition from one group to the other. Furthermore, learning opportunities go down as learners will have less time with the teacher (Ford & Optiz, 2008). To this end, how the reading teachers organise their classes for reading depends on the teacher, but it should not be seen as a major factor in determining instructional and interventional practices employed by the reading teacher and how Learners with MIDDs master foundational reading skills.

6.2.8 Learning Reading Environment

The reading environment plays a crucial role in shaping the reading experiences of learners in the FP. It was shown in the literature review that the physical and psychological environment can significantly impact reading instruction and intervention (Jehril & Chan, 2020). A comfortable and well-lit reading area can promote relaxation and reduce eye strain, allowing learners with mild intellectual developmental disorders to focus on learning to read (Wiggins, 2015). An attractive, well-resourced reading space promotes engagement and motivation (Krashen, 2004). The survey questionnaire and a checklist for reading room observation were used to investigate the learning environment for reading in special schools.

The investigation revealed that no overcrowding was reported in either case. About 71.3% of respondents in the teacher survey indicated that classes were manageable, while the other 28.7% disagreed. Similarly, the results from the checklist also indicated that there was no overcrowding. This finding contradicts other research findings in the South African context, alleging poor reading in the FP to overcrowding (Phala & Hugo, 2022; National Reading Strategy, 2008).

However, the learning space failed to meet architectural requirements for learning space for learners with a mild intellectual development disorder, in terms of folding chairs, shape, furniture layout, carpeted floors, seating alcove, sunspace, cold colour painting and soft music. Jehril and Chen (2020) recommend these architectural strategies to meet the needs of intellectual developmental disorders in primary schools. Other design requirements include two doors, insulated walls, and a sloped ceiling to prevent echoes. Research reported in the literature strongly posits that the physical environment can either support or hinder reading instruction and intervention (Gambrell, 2015; Krashen, 2004; Wiggins, 2015).

The research further found that projectors and computers were lacking in the reading rooms when it comes to teaching and learning. Again, this agrees with earlier findings on reading resources in the current research. The finding is also in line with other findings that there is a lack of reading resources in the FP (Pretorius, 2024)

Furthermore, the finding shows that though most reading environments are not overcrowded, many still do not meet all the architectural requirements for a reading

room for MIDD learners. This finding presents a new insight into teaching FP reading in special schools.

6.2.9 Reading Policy for Foundation Phase

A reading policy was cited in the literature as a vital document that outlines the principles, goals, and strategies for teaching reading in schools. A reading policy would ensure that all teachers in the FP in special schools are using consistent approaches, promoting coherence and continuity in reading instruction (Kika et al., 2022). By promoting consistency and coherence, supporting inclusive practice, and enhancing teacher confidence and competence, a reading policy can help ensure that all FP learners receive high-quality reading instruction (Florian, 2015). By including key components such as a statement of purpose and principles (Kika et al., 2022), goals and objectives, teaching approaches and strategies, and assessment and monitoring procedures, a reading policy can provide a comprehensive framework for teaching reading in special schools (Gibb, 2022).

On reading Policy for the FP, both qualitative and quantitative findings are silent about a specific reading policy for learners with mild intellectual disability in special schools in Gauteng. The known reading policies for the FP, curriculum and assessment policy statement (CAPS) on English Home language (DBE, 2022) and National Reading Programme for Grades 1 to 3 (Kika et al., 2013) are designed for mainstream primary schools. This result gives new insight into the teaching of FP reading in special schools, in that the reading teacher decides what has to be taught. Therefore, the absence of a specific reading policy means teachers must adapt what they teach or improvise. In this regard, this study discovered that the participants would develop their own reading programmes, with modified content, AS WELL AS differentiated instruction and assessment. This finding shows that teachers in these schools are demonstrating their commitment to providing effective reading instruction by employing differentiated instruction despite the lack of a clear reading policy for these schools. This highlights the need for professional development to support the effort of FP reading teachers in special schools.

The finding that special school teachers employ differentiated reading instruction ties up well with the work of William (2024), which states that differentiation allows teachers to accommodate learners' diversity by providing tailored learning experiences that

maximise each learner's potential. Other studies show that in the context of a multi-tiered system of support (MTSS) identified in the conceptual framework, differentiation is a critical component in tier 1 instruction, because it enables all learners to access the core curriculum despite their varying abilities (Williams, 2024).

While reading teachers in the FP in special schools are doing an admirable job of employing differentiated instruction, the lack of a clear reading policy in these schools is still a concern. A clear reading policy would provide teachers with guidance and support, helping to ensure consistency and coherence in reading instruction (DoE, 2013). Relatedly, progress monitoring and data-driven instruction are seen by Williams (2023) as essential components of differentiated instruction. The results further demonstrate that all this cannot happen in reading without a policy to guide the teaching of reading in the FP. A reading policy would ensure unified approaches and learning objectives in the FP across all special schools in Gauteng. A reading policy would also provide guidance and resources for effective instruction and align instruction to meet national and international standards. Therefore, the result casts a new light on the need for an endorsed reading policy to guide FP reading in special schools in Gauteng. Special schools should not depend on adapting but on trying to stand independently.

6.2.10 Reading Instructional Practices

This section focuses on the reading instructional practices employed by FP teachers in special schools during differentiated instruction as discussed in the previous section. Research investigation found from the analysed quantitative and qualitative data that there were some practices that stood out from the rest, such as reading to the teacher, reading aloud, decoding, modelled reading, free reading and oral comprehension. These findings support the conceptual framework highlighting the complex interplay between teacher, contextual, and instructional factors that impact reading development for MIDD learners.

6.2.11 Reading Aloud

The results from the teacher survey and teacher structured interviews confirm that reading aloud, either to the teacher, peer or self was a popular practice with most participants. To this end, most teacher participants in the survey indicated that they practised this with their classes daily or weekly, and once a month at the least. Existing

literature confirms that reading aloud worldwide is the most practised in the reading classroom in the FP (Gabrielatos, 2002). This does not mean it is the best way of teaching reading in the FP, as the practice has its own drawbacks. For example, reading aloud draws the learner's attention to pronunciation, negatively affecting comprehension (Wallace, 1992).

However, it helps FP learners match sounds with the symbols by segmenting or decoding the whole word (Eysenck 1990). Again, reading aloud raises phonological awareness. The findings in this study, therefore, confirm that the practice is popular and relevant to FP reading in special schools since learning to read starts with phonics (sounds) and graphemes (letters representing the sounds), which have to be read aloud.

6.2.12 Decoding

Both quantitative and qualitative results and findings confirmed that teaching decoding was another reading instructional practice indicated by teacher participants as an effective teaching method in special schools. Decoding is described by Calderwood and Stearns (2023) as a cognitive ability to translate a word from print to speech by using knowledge of sound-symbol (letters) correspondence. Knowing how graphemes map to phonemes and then decoding enables beginners to read words (Sargiani et al., 2021). However, this result does not explain in detail how the teachers teach decoding in special schools. Other research findings show that systematic phonics instruction effectively teaches decoding (Torgesen, 2004). Related literature further indicates that segmentation, blending, chunking and sight words are some of the word-decoding skills leading to the ability to read (Sargiani et al., 2021). In other words, that is what phonological awareness is all about, and to master this, is a process. However, both qualitative and quantitative results are silent on the importance of practice and reinforcement in developing decoding skills, emphasising the need for learners to engage in regular reading activities (Rasinski, 2017).

6.2.13 Modelled Reading

Modelled reading is a teaching strategy where a teacher or able learners read aloud to other learners to demonstrate fluent, expressive and engaged reading. For example, shared reading, guided reading, and digital modelled reading using audiobooks and videos. Reading aloud increases engagement and motivation

(Allington, 2012), which is essential in the FP reading. Further, the literature review cited reading aloud as a crucial component of effective reading instruction (Allington, 2012).

The findings of the current study indicate that the teacher participants employed modelled reading as an instructional practice. Results obtained from teacher interviews demonstrated that teacher participants read to learners as well as learners read to other learners in pairs, groups or to the whole class. Both quantitative and qualitative findings indicated the importance of teacher modelling in reading instruction, highlighting the need for teachers to model reading strategies for struggling readers (Gambrell, 2015). As further pointed out in the literature, modelled reading can promote reading engagement and motivation, particularly when teachers model with enthusiasm and passion (Ivey, 2017).

6.2.14 Free Reading

Free, independent, self-selected, or voluntary reading all mean the same. This study's integrated findings suggest that free reading is another popular reading instructional practice with FP teachers in special schools. The quantitative findings indicate that free reading is widely used in these schools, while qualitative findings provide insights into the experiences and perceptions of learners and teachers. Research posits that free reading improves fluency and increases motivation and learner engagement. Digital tools such as e-books and reading books are worth considering for the FP.

The findings suggest that free reading can help improve motivation and confidence in learners with mild intellectual developmental disorders. These findings have implications for reading instruction and policy. They suggest that free reading can be a valuable addition to reading programmes, particularly for learners with mild intellectual developmental disorders. The findings also highlight the importance of providing learners with choices and autonomy in their reading and providing teachers with support and guidance in implementing free reading activities.

6.2.15 Assessing Reading Comprehension

The quantitative results found that most teacher-respondents preferred assessing reading comprehension daily or weekly. This was revealed by quantitative results obtained for Item 8f of the survey, which sought to determine how common the practice

was in the FP. The survey results revealed that most respondents (73.2%) confirmed that they employed this practice once a week. The other 23.2% of the respondents indicated that they assess reading comprehension daily. Oral comprehension was also identified as common practice by teacher participants in the interviews. This finding aligns with the five pillars of reading in the FP: phonemic awareness, phonics, fluency, vocabulary, and comprehension (NRP, 2000). This is what reading teachers in the FP have to teach and assess using different strategies.

6.2.16 Assessing Spelling And Vocabulary

Vocabulary is one of the five pillars of FP reading, as the NRP (2000) recommended. Vocabulary is the knowledge of word meanings and usage. Teaching strategies involve vocabulary instruction, vocabulary assessments, and vocabulary building as an intervention.

Effective teaching of FP reading involves explicit instruction in phonics, decoding, and spelling (Kilpatrick, 2015). Spelling is assessed to monitor learners' reading progress and growth, as spellings evaluate mastery of phonics and decoding skills. Spelling skills improve with age and instruction (Gentry, 2004), and spelling development follows a predictable sequence (Bear et al., 2012). Results from spelling assessments inform reading instruction and intervention, as Moats (2000) noted. Frequency of assessment is either regular (e.g., weekly), periodical (e.g., per term) or as needed (e.g., after instruction) using standardised tests, curriculum-based assessments, diagnostic assessments or technology-based assessments (online), for example, the Renaissance online assessment platform for K-12 education.

According to the findings obtained from the survey, assessing spelling and vocabulary were the other two common practices employed by special school teachers when teaching FP reading. This was confirmed by 64.2% of respondents who indicated that vocabulary was assessed once a week, with the other 21.4% assessing vocabulary daily. Most respondents (53.5%) also indicated that they assessed spelling once a week, and the other 16% indicated that they assessed spelling daily. However, the qualitative results are silent about these two practices, which complement each other in the learning of reading.

6.2.17 Reading Interventions for the Foundation Phase

Regarding reading interventions, both quantitative and qualitative results confirmed that reading interventions were being employed in the FP in special schools in Gauteng. The findings, when further expressed in the context of the MTSS model (Wanzek et al., 2018) as identified in the conceptual framework, strongly demonstrate that Tier 2 and Tier 3 interventions were found in this study. Teacher-based interventions are Tier 2 interventional practices, and intervention programmes fall under Tier 3. The Tier 3 interventions are formal (Wanzek et al., 2018), evidence-based programmes (Richardson, 2018), have a time frame, and should be implemented with fidelity (Richardson, 2018).

The findings in this study revealed that most teacher participants (41%) strongly agreed that they employed their own interventions. A further 35.7% said more of the same. The findings also reveal that teachers are unsure about the interventions' time frame. Relatedly, 62.5% of the respondents confirmed that their schools did not follow any intervention programme. In the survey, most respondents also confirmed that interventions had a time frame (53.5%), with 35.7% of participants being neutral. Further, 37.5% of participants strongly agreed that interventions are formal, but with 35.7% being neutral. Again, most respondents confirmed that interventions are formal. Surprisingly, 57% of respondents did not see early identification of learners in need of reading intervention as important.

The survey identified that most teachers employed the following Tier 2 interventional practices during reading instruction: peer teaching, reading to the pictures, using visual aids, repeated reading, making time for struggling readers, modelled reading, providing feedback after reading, one on one reading, using Thrash charts, group reading and involving a reading specialist. When further probed to determine which interventions were more active, teacher participants highlighted that all interventional practices are interlinked. As a result, they were all effective. The following Tier 3 interventions were also identified in this study: Early grade reading assessment, D/CAPS, CAMI, and Technical occupational curriculum.

However, most teacher participants indicated they were not following any Tier 3 intervention programmes in schools. This finding, therefore, provides new insight into reading intervention practices employed by teachers with learners with a mild

intellectual disability. First, most teachers employ their own interventional practices that they deem to work for their learners. Second, teachers in special schools say all interventions work for learners as they interlink. Third, special school teachers believe that no reading intervention programmes are being followed in the FP. In addition, most teachers, as demonstrated by results from the survey, know that interventions have a time frame. Both quantitative and qualitative results reveal that the Thrash chart and phonics are the most common interventional practices cited by FP teachers in special schools in Gauteng when helping learners with a mild intellectual disability to learn to read.

6.2.18 Technological Integration in the Teaching of Foundation Phase Reading

Technology integration in reading is the effective use of technology to enhance the teaching of reading instruction, engagement, and outcomes (International Reading Association, 2019). Different types of technology integration are highlighted in the literature to support the conceptual framework that can be employed in the FP reading in special schools. First, digital texts such as eBooks, audiobooks, and interactive texts. Second, reading software, such as phonics and decoding programs, such as Phonics Hero (Kumar et al., 2020). Third, assistive technology includes text-to-speech and speech-to-text software like Riverside and Dragon (Kamil et al., 2017). Fourth, there are digital walls. Related research findings report that digital walls increased reading fluency by 25% (Kumar et al., 2020) and those interactive digital walls improved reading comprehension by 30% (Patel, 2018). In addition, digital walls enhanced student engagement and motivation by 40% (Singh et al., 2018).

The current study's findings confirm that the capacity and will of FP teachers in special schools to teach learners with a mild intellectual development disorder to read are compromised by a lack of technology. This finding was revealed in both qualitative and quantitative results presented in Chapter 5. Teachers lamented the lack of projectors, whiteboards, recorders, and other visual aids. Technology integration in teaching reading to learners with mild intellectual developmental disorders has become increasingly important in recent years.

Research has shown that technology can provide many benefits, including increased engagement, motivation, and access to learning opportunities (Bouck et al., 2018; Kamil et al., 2017). In this regard, Williams (2023) believes that “digital tools such as

interactive whiteboards, e-books, and audiobooks can provide learners with a more engaging and interactive reading experience". Further, using technology in teaching is seen as the only solution to the reading challenges these learners face. Computers play a vital role in supporting FP reading instruction, offering a range of benefits to learners, teachers, and parents. Computers enable learners to access personalised reading material such as digital books (Leu et al., 2013) and interactive stories (Kamil et al., 2011), multimodal learning experiences (Rose et al., 2014), and access to online reading resources (O'Bannon & Thomas, 2014).

Qualitative results from teacher interviews went as far as discovering that FP teachers believed that even the social media platform WhatsApp could be incorporated into the teaching of reading, and this would benefit learners with mild intellectual disability both at home and school. The integration of technology in the teaching of reading, as desired by the teachers on the ground, will go a long way in reading instruction and reading development for learners in special schools. The provision of such resources rests squarely on the organisational system of the school as suggested by the conceptual framework. Technology, among other problems in teaching reading in special schools, was also cited as one of the challenges by FP teachers.

6.2.19 Challenges in the Teaching of Reading in Special Schools

In analysing the sub-theme relating to challenges teachers in the FP face when teaching learners to learn to read, most respondents and participants highlighted teaching time and technology. This finding is confirmed by the results of the survey and teacher interviews, indicating that reading was not timetabled. Other participants indicated that they were only teaching reading twice a week and that this was not enough to teach struggling readers foundational reading skills.

Further, participants noted that the teaching of reading was not prioritised in special schools. Contrary to existing literature, in South Africa, research indicated that teachers lacked the capacity to teach reading (Condy & Blease, 2014; DoE, 2008; Van der Merwe, 2011); the findings confirm that teachers made it clear that there was no time for teaching reading. As mentioned in other sections, a lack of technology was another major challenge cited. Again, the absence of a reading specialist in special schools was also identified by the participants. Furthermore, the results from both the survey and teacher interviews confirmed the lack of parental involvement in the

teaching of reading in the FP in special schools. Together, these three findings were cited as the major challenges faced by reading teachers in the FP in special schools in Gauteng. This, again, is a new insight into how contextual factors influence the teaching and learning of reading in special schools.

The lack of teaching time can have significant implications for teaching reading to FP learners in special schools. Research has shown that learners with mild intellectual developmental disorders require more time and support to develop reading skills, and that a lack of time can lead to poor reading outcomes (Parette et al., 2005). Parette (20005) noted that “learners with mild intellectual developmental disorders require a more intensive and explicit approach to reading instruction, which can be challenging to implement in a limited time frame.” The lack of support from reading specialists can also have significant implications for teaching reading to these learners. As highlighted in the literature, specialist support such as reading specialists and special education teachers can provide valuable expertise and guidance to FP reading teachers (Bouck et al., 2018). The same is true with a lack of technology, which can be disadvantageous to the learner, which can be addressed by text-to-speech software and multimedia materials that can support the learner with mild intellectual developmental disorder (Moyer, 2017).

Therefore, a lack of teaching time, technology, and specialist support negatively impacts the teaching of reading in the FP for learners with mild intellectual developmental disorders. By understanding these implications, educators and policymakers can develop targeted solutions to support FP teachers and improve reading outcomes for learners with mild intellectual developmental disorders in special schools in Gauteng.

6.2.20 Foundation Phase Learner Progression and Outcomes in Reading

A convergence of results in this study indicates that learners in the FP in special schools in Gauteng are making some progress in mastering foundation reading skills, but they are not yet there as expected by the teachers. The finding is confirmed by the results from the survey, which shows that most teacher-respondents (41%) indicated that half of their classes were struggling with phonological awareness. Further, another 26.7% indicated that more than half the class struggled with phonological awareness, and 10.7% of respondents confirmed that all learners struggled to read in the FP. Only

12.5% of respondents had classes with only a few learners struggling with phonological awareness and 8.9% indicated that learners were mastering foundational reading skills.

Related literature (Sargiani et al., 2021) confirms that phonological awareness is an umbrella process involving several skills: phonemic awareness, graphemes, segmentation, blending, and decoding. Together with the alphabetical principle and phonics, these are the foundation reading skills taught in the FP.

It was pointed out earlier that the teacher should not be quick to judge that a learner cannot master the foundational reading skills and assume that they cannot read. The findings in this research attest that there can be surprises when learners can crack the code and start to read. This was confirmed earlier by results from the teacher interviews and the researcher's reflections in the reading classroom.

6.2.21 Assessing Foundation Phase Reading

Both the quantitative and qualitative findings in this study confirm that FP learners are somehow being assessed in reading in special schools. Qualitative findings make it clear how the process is being done. Put together, the findings highlight four things, as set out below.

First, reading is not assessed separately as a stand-alone subject in most cases. Reading IS only assessed separately in a few cases. This contrasts with findings from the literature review that assessment is key to teaching FP reading (Landsburg et al., 2017). This should be the focus of FP teachers in special schools in Gauteng. However, this is not the case since reading is embedded in the subjects of language. The reading teacher might not be able to enforce the standard assessment requirements, but through the departmental head, can advocate for effective assessment in the FP.

Second, the fact that reading is not being assessed separately in most cases confirms that all the basic reading skills are not being assessed. The importance of assessing the basic foundational reading skills was highlighted. These skills are “phonological awareness, phonics, fluency, vocabulary, and comprehension” (NRP, 2000, p.1), which are the foundations for reading development (See Chapter 2). This finding should direct reading assessment policy in the FP in special schools, considering that

these schools are there to provide specialist support to enable struggling readers to read. Therefore, if their reading progress is not being effectively monitored, it becomes difficult to determine their reading development when placed in special schools.

Third, reading levels are not being assessed to determine the progress learners are making in reading. According to the National Reading Strategy (DOE, 2008), assessment directs teachers' decisions on reading instruction and intervention. Again, decisions should be data-driven.

Fourth, it is unclear which assessment policy is being followed to guide assessment of FP reading, meaning the reading curriculum in this phase cannot be effectively evaluated. In the mainstream primary schools in South Africa, FP learning in reading should be assessed against a benchmark (Pretorius et al., 2016). The Early Grade Assessment (EGRA) is recommended as one of the key assessments for Grades 1-3 (GDE, 2018)

Therefore, these findings indicate that though assessment is crucial to the teaching of FP reading, teachers in special schools are not effectively assessing it. Clear policy guidelines are needed to strengthen the assessment of reading in special schools.

6.2.22 Feedback from Reading Assessments

The conceptual framework for this study (See Figure 4.9) incorporated assessment as a critical component of reading instruction in the FP. The quantitative and qualitative findings report mixed views from teacher and principal participants, as well as document analysis. According to Kaminiski (2021), assessment gives the teacher valuable feedback for planning teaching. Though reading assessment in this study was considered as not up to expected standards, the findings indicate that there was some form of feedback. The feedback expressed by some reading teachers was that, in some cases, only 25% of learners were expected to be able to read at grade level when they exit the FP. Others indicated that their classes were doing well, with an estimated above 50% of learners who could read at the end.

Document analysis revealed that 46.1% of learners in the documents analysed were passing reading. However, since the record of marks did not target specific skills, they could relate to reading fluency or vocabulary only and not all the basic reading skills. Therefore, the finding here should be interpreted with caution.

The findings from the quantitative and qualitative results in this section converge, and both confirm that teachers report to parents on learners' reading progress. Descriptive statistics in this study show that most teachers (69%) reported to parents each term, with another 18.6% reporting weekly and the other 13.6% reporting daily.

In addition, results from teacher interviews reveal that teachers were not happy with the parents' responses. Parents do not work hand in hand with reading teachers and learners in the FP in special schools in Gauteng. As suggested in the conceptual framework, schools should resolve this issue as hosts in the organisational system.

6.2.23 Teachers' Perception of Foundation Phase Reading Programmes

In evaluating the FP reading programme in special schools, the teachers in the survey and in the interviews expressed different views. The study's findings show that some reported seeing progress and were optimistic that reading would continue to improve. Others expressed the view that barriers were not being overcome. This was confirmed by participants who even felt they were not trained to teach reading. These views directly align with previous findings that in South Africa (Spaull, 2023) and worldwide (Reilly et al., 2019), learners in the FP fail to read at grade level. As already pointed out in the literature review, the scope of this problem and what could be possibly done is known, but learners continue to fail to read at grade level (Meiklejohn et al., 2021).

However, contrary to the popular view that FP learners face some challenges in reading at grade level, there is now new evidence to counter this view. As pointed out by one reading specialist in this study, and put in a special school context:

"We should not be too quick to judge the reading performance of the young struggling readers, but to see their failure to master foundational skills of reading as a process of learning to read".

In other words, mistakes made must be noted and then corrected for learners to learn to read. Again, as noted by a principal with wide experience in the teaching of FP reading, "There is slight improvement, but learners need to be drilled more". This means there is some improvement in the teaching of reading, but more work still needs to be done.

Furthermore, the current study's finding that some struggling readers can one day crack the code and start to read suggests that learning to read is a continuous process

that has its own surprises. To this end, it can be concluded that there is some progress in the FP reading in special schools and more can still be done if reading teachers get the support they need.

6.3 SITUATING THE FINDINGS WITHIN THE CONCEPTUAL FRAMEWORK

Interpreting the findings of this study in the context of the conceptual framework, confirms that learning to read in the FP in special schools is a process that is influenced by multiple interlinked factors (De Stefano et al., 2012; DoE, 2008; Van der Mescht, 2018). Learning to read includes phonological awareness, alphabetic principle, fluency and vocabulary. The multiple factors include the learners, the teacher, and the reading policy, curriculum, teaching practices, intervention practices, resources, time and parental support.

Again, the current study's findings demonstrate that learning to read is an integrated process as suggested by the conceptual framework (Ehri, 2020; Henning, 2016; Sargiani et al., 2021). As such, when teaching FP learners to learn to read, the reading skills should be taught in that order (Pollatsek & Treiman, 2015). For example, the skills taught to beginners are the skills taught by converting graphemes into phonemes, holding the sound in memory, and then blending them in the correct order (Pollatsek & Treiman, 2015). However, this needs specialised instruction and practice by specialists and trained reading teachers, not just any teacher without the skills. This is a challenge for educationists on the ground, as they need to staff the FP in special schools with skilled reading teachers who know their job.

The findings in this study also show that there are policies that should guide the teaching of skills in the FP (DBE, 2013). Unfortunately, there is no clear reading policy for special schools. Again, such factors as the reading environment, resources, time, the teacher, and the learner should be considered when teaching FP reading in special schools (Shree & Shukla, 2016). As suggested by the conceptual framework, all factors, such as the curriculum to be followed, resources, teaching practices and interventional practices come into play.

In all this, the reading teacher in front of the learners plays the most important role (Gibb, 2022; Gumede & Boakye, 2020). The organisational system influences this role to ensure a competent teacher. In the current study, all teachers who participated were qualified and had wide experience in teaching reading. This is contrary to earlier views

that FP reading was being taught by teachers who were not qualified to teach (DoE, 2005; Henning, 2016; Phala & Hugo, 2022; Will, 2019). Instead, the findings indicate that the current teachers are eager to teach reading, and their efforts are only hampered by other factors controlled by the organisational system. However, it emerged from the findings that there are cases that call for professional development in reading in special schools, which is the responsibility of the school's organisational system.

The final goal of linking the learning process and the various factors, as shown by the conceptual framework, is to enable FP learners to read at grade level. To that end, the study found that few learners meet the targeted outcomes in special schools. The findings also cautioned that this did not mean most learners cannot learn to read, as claimed in other studies (Marais & Wessels, 2020). However, it emerged in the findings that learning to read is a process and learners, especially the very young ones, are bound to make mistakes, which adults see as failing. However, learners can learn to read when the mistakes are noted and corrected effectively.

6.4 CHAPTER SUMMARY

This chapter highlighted the integrated findings of the quantitative and qualitative results first presented in Chapter 5. The findings were discussed in relation to the literature reviewed in Chapter 2 and the conceptual framework. The similarities, contradictions, and silences arising from the literature related to the findings were highlighted. Again, the conceptual framework was revisited, and the current study was put into context. On another note, this study revealed several unexpected insights into teaching reading to MIDD learners. Notably, despite reading not being timetabled, teachers expressed eagerness to teach reading, highlighting their commitment to supporting these learners. However, teachers' reliance on technology as a primary solution for reading instruction was evident suggesting a need for professional development and for the implementation of the assistive technology framework in special schools. Surprisingly, parents' limited interest in their children's reading progress raised concerns about parental involvement in their children's work.

In the next and final chapter of the thesis, Chapters 1 to 6 will be summarised, and conclusions will be drawn regarding the research questions that guided the study. The current study's contributions and limitations will also be highlighted. The chapter will

conclude with recommendations for teaching reading, teacher development, and further research.

CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

This chapter addresses the conclusions and recommendations of this convergent parallel mixed methods study, whose purpose was to explore how special school teachers of Gauteng teach reading and better understand the progress that FP learners with a mild intellectual developmental disorder make in mastering foundational reading skills. First, previous chapters are reviewed, followed by answering the research questions. The chapter concludes with a discussion of the contributions and limitations of the study and then recommendations for practice, teacher development, and further research.

The study was introduced in Chapter 1. The chapter included a discussion of the purpose and rationale of the study. A brief exploration of existing literature on intellectual disability and the teaching of foundation reading skills was made. The paradigmatic approach to centre the study within a body of knowledge was also described. The primary and secondary research questions to guide the study and the definition of key terms were outlined. A basic overview of the research methodology, including quality criteria and the ethical considerations applying to the study, was highlighted.

Chapter 2 presented a comprehensive literature review on FP reading. Key themes and findings from existing research were examined, highlighting major insights. The review synthesized theoretical perspectives, empirical studies, and methodological approaches, providing a foundation for understanding the complexities of teaching reading to MIDD learners. Gaps and limitations in current research were identified, justifying the need for further investigation. Chapter 3 focused on the conceptual framework to guide the research process. The school-wide model of reading, the cognitive load theory, the simple view of reading, the universal design for learning and the multi-tiered system of supports underpinned the conceptual framework. Chapter 4 described the research methodology, including the research design, participants, data collection and analysis procedures. Pragmatism, on which the study is grounded, and the philosophical background, was also discussed. Chapter 5 presented the research findings, highlighting the relationships between teachers' biographical profiles, contextual factors, and reading instructional and intervention practices. In Chapter 6,

the qualitative and quantitative findings were integrated by interpreting the results in the context of existing literature and the conceptual framework.

7.2 ADDRESSING THE RESEARCH QUESTIONS

In this section, the research questions formulated in Chapter 1 will be answered based on the results of the study presented in Chapter 6. The secondary questions will be discussed first, followed by the primary research question. It is common practice to present secondary research questions before the primary research question (Creswell, 2014; Maxwell, 1996). This approach served several purposes. First, secondary research questions provided a contextual framework for the research problem and its significance (Merriam, 2009). The primary research question then directly addressed the research problem or gap. By addressing the secondary research questions first, the researcher established a foundation for the study, demonstrating a clear understanding of the relevant literature and concepts. Second, presenting the secondary research question first allowed the researcher to narrow the focus of the study and identify the specific research gap that needs to be addressed (Bryman, 2016). Third, presenting the secondary research questions before the primary research question facilitated a logical and coherent structure for the study (Creswell, 2014).

7.2.1 Secondary Research Question 1

What are the special features of reading instructional and intervention strategies employed by special school teachers to support FP learners with mild intellectual developmental disorders in mastering foundational reading skills?

Based on the study's findings, special school teachers employ various instructional and interventional practices to teach learners with mild intellectual developmental disorders to read and master the foundational reading skills. This section unpacks these instructional and interventional practices to answer the question.

7.2.1.1 Reading Instructional Practices and Special Features

The findings from this study, to start with; indicated that FP teachers in special schools organise their reading classes mostly in mixed groups or they teach as a whole class. Very few teachers in the study opted for ability grouping. The reasons given, which are the special features identified, were that teachers avoid exposing the different

reading abilities of struggling readers as much as possible. The participants pointed out that (this way) when learning to read as a group, learners encouraged one another, rather than feeling embarrassed as individuals when they struggled to read. Mixed grouping allows group-guided reading.

Second, teaching decoding daily or at least once a week was another instructional practice employed by special school teachers. As the findings indicate, decoding is not a once-off process, but a continuous one. Decoding is the start of the reading process and predicts early reading success. Previous studies recommend systematic and explicit instruction. Decoding is the most important skill in the FP, encompassing the four foundational reading skills: phonological awareness and phonics, alphabetic knowledge, word recognition, and oral reading fluency. As pointed out in the literature, an expert FP teacher would teach this. The special features of decoding instruction and intervention strategies employed by FP teachers in special schools identified in this study include one-on-one instruction, more time with struggling readers, reduced load for both teacher and learner, and using assistive technological support.

However, time constraints, overload, and lack of technological support were some of the challenges cited as limiting effective reading instruction in the FP in special schools. Therefore, as part of the organisational system, the school must come up with research-based, workable solutions to address the challenges, as seen in the conceptual framework.

Third, the findings indicate that special school teachers evaluate reading activities. Most teachers did this every day, or at least once a week, as shown by the results. The literature pointed out that children having trouble learning to read need to be identified early and given support. The findings of the current study, presented in Chapter 6, confirm that teachers and learners in special schools get immediate feedback on reading activities. This finding also aligns with all other earlier research findings that effective instruction is accompanied by assessment and evaluation of the reading programme. However, reading is not a stand-alone subject in special schools and is being assessed as a component of a language subject. The implication is that there is no formal assessment of basic reading skills in most special schools, making it difficult to monitor the progress of learners with mild intellectual developmental

disorders in mastering foundational reading skills in special schools. This finding therefore informs the FP reading curriculum and assessment policy in special schools.

Fourth, reading aloud is another instructional practice highlighted in the research findings. The common practice or special features were to read aloud as a whole class or to oneself. It was confirmed in the literature that reading aloud is a common practice in primary schools, as it develops fluency, alphabetic knowledge, and gives the learner confidence. Again, reading aloud at the FP level helps children match sounds with symbols in written language. This is what makes the practice common in early primary grades, including in special schools, as pointed out in the literature.

Fifth, learners read aloud after the teacher, as highlighted by the special school teachers. The findings in this research show that the practice, when applied in special schools, will not embarrass a learner who cannot read. Again, the young readers will gather courage. Reading to the teacher exposes the weaker child, unlike reading after the teacher.

The findings also indicate that teachers model different reading strategies to learners. Modelled reading provides a high level of support to the struggling reader, as the literature explains. In the FP, it is a practice that can motivate struggling readers to show them the way to follow. As highlighted in the literature, the teacher demonstrates oral reading fluency through modelled reading. As such, the findings in this study show that modelled reading is one of the most common practices in the FP in special schools, and the special features are to support the learner in learning to read by demonstrating the correct way to read. By imitating the teacher, the learner also practises and learn to read.

The findings indicate that reading to other learners is an appropriate practice for teaching other learners to read in special schools. A special feature of this practice is that it gives learners struggling to read a chance to practice word recognition and become more accurate, leading to oral reading fluency, which is the bridge to comprehension, as indicated in the literature. The other special feature is that the practice helps shift the responsibility of reading from the teacher to the learner. The aim of teaching learners to read is to enable them to be independent readers, which comes with practice.

Using different reading materials is another practice employed in special schools. The findings show a high response to this item in the survey. It was indicated during the teacher survey and interviews that FP teachers in special schools improvise some of the reading material. This is done to meet the needs of the struggling readers. For example, newspapers take the place of reading books where the reading of textbooks is beyond the learner's reading level. In this regard, the findings further indicate that special school teachers make their own workbooks to meet the needs of learners with mild intellectual developmental disorders.

Teaching oral reading comprehension, as well as some forms of written comprehension, are other instructional practices that came out of the findings. Special features noted are to let learners respond to questions orally, where the learner struggles with reading. Gradually, oral comprehension is linked to reading and writing. In addition, oral comprehension enables learners to apply basic comprehension strategies in practice with teachers and on their own.

Multi-sensory instruction was identified as another special instructional strategy that benefits struggling readers in special schools. The findings established that special school teachers employ this teaching method to engage multiple senses (visual, auditory, kinaesthetic, tactile) and, therefore, enhance the learning of reading in the FP.

Besides the reading instructional practices identified hereafter, other practices, such as using computers and cell phones, were mentioned in the findings. The special features highlighted were computers and reading software used to assist in the teaching of reading. The computer is the tutor, and the learner with intellectual developmental disorder is the tutee. Literature confirms that there are such computer programmes to assist struggling readers. The finding also indicates that cell phones in special schools are being used to record learners reading, where schools fail to provide digital equipment for FP reading. The learner practised oral reading fluency and recorded, and then the recordings were played back as feedback to the learner. Cell phones can be a valuable resource in enhancing FP reading in special schools, and this study recommends their use in this context.

7.2.1.2 Reading Interventional Practices and Special Features

The findings of this study indicate that in most cases, teachers employ the same instructional practices as interventional practices. In other words, the teachers who participated in this study do not separate instructions and interventions when teaching. For example, reading aloud, model reading, reading to other learners, repeated reading using a computer, online reading, reading to the class, teaching sounds, teaching spelling, oral reading, funny reading games, and using videos were also identified as reading interventions. Only a few teachers identified one-on-one, D/CAPS, TOC, and involving a reading specialist as special interventions. There could be several for this.

First, the special school teachers lack knowledge of FP reading interventions. Second, they have no time for interventions since they do not even have enough time to teach reading, as pointed out in the findings. Third, they employ direct teaching as their interventional practice. Therefore, for this study, we presume that practically there is no time to employ reading interventional practices besides direct teaching.

In addition to the special reading instructional and interventional practices and their special features discussed in this section, there are other special considerations to make when teaching learners with an intellectual disorder. This was discussed in Chapter 2. Relatedly, it should be noted that interventional strategies aim to enhance the quality of instruction in Tier 1, in the context of the MTSS model. High-quality instruction in the first place in the regular classroom was highlighted in the literature as the best approach to help struggling readers. Together with professional development for the FP teachers, it surpasses all the other programmes that provide technology, alternative curricula, and other interventions. Therefore, the special features of direct instruction, high-quality instruction, and teacher development put the teacher in the spotlight as the key to helping struggling readers.

7.2.2 Secondary Research Question 2

What contextual factors influence the teaching of foundational reading skills in the FP in special schools, and how do these factors affect teaching practices and learners' reading outcomes for learners with mild intellectual developmental disorders?

The findings from qualitative results confirm that various factors, such as the learner, the teacher, resources, organisational system, time, reading space and policy were found to influence the teaching of FP reading in special schools.

7.2.2.1 *The Foundation Phase Learner in Special Schools*

The FP learner with a mild intellectual development disorder was found to be struggling with the learning of reading. Such a learner has low self-esteem and has been referred from the mainstream school due to poor performance in academic work. In addition, such a learner easily forgets, a point raised by most teachers. Again, such a learner is usually much older than peers in the mainstream but performing below their standard. These findings converge with the broader literature on intellectual developmental disorders to indicate that the FP classroom in special schools accommodates diverse learners at different stages of reading development: learners with varying reading abilities, needs, languages, and reading experiences. Therefore, the learners in special schools in Gauteng learn to read at a slower pace and would need intervention in reading to be able to read at grade level. Furthermore, the learners struggle psychologically.

7.2.2.2 *The Foundation Phase Reading Teacher*

The findings in this study confirm that the FP teachers teaching reading in special schools are both qualified and experienced, comprising more female teachers than male teachers. However, not all of them are qualified to teach reading, but some have only learned through experience. As such, the findings indicate that some would show a lack of confidence in the teaching of reading, especially when it comes to teaching Tier 3 learners to learn to read. This is where professional development in reading can be considered, so the teachers receive in-service training on teaching reading to learners with mild intellectual developmental disorders. The study's outcomes reaffirm established research evidence that an effective reading teacher for special needs learners requires the following skills: content knowledge, pedagogical expertise, classroom management, emotional intelligence, and continuous professional development.

7.2.2.3 *Resources for Foundation Phase Reading*

The findings of this study indicate that reading teachers in the FP need more resources if they are to teach reading effectively. The findings revealed that there are no specific

reading books for the FP in special schools. Teachers improvise with the reading materials and make their own books appropriate to their learners' needs. Most teacher participants in the study highlighted the lack of resources. For example, a lack of assistive technology, libraries and reading specialists, which they indicated were a must for these learners. As a result, the lack of appropriate resources limits teachers' efforts to teach the FP learners in special schools effectively to read. Coupled with limited time for teaching reading, it is recommended that the teaching of reading in the FP needs to be strengthened. The findings further reinforce the growing body of evidence that special education reading programmes, adaptive reading materials, assistive technology, and online reading resources are essential for teaching reading to learners with mild intellectual developmental disorders.

7.2.2.4 *Specialised Reading Instruction and Learning Support*

Special schools are referral centres for learners with special educational needs, such as a mild intellectual disability, and those who are not coping with mainstream work. The findings confirm that the special schools in Gauteng are such an example. The literature informs us that these schools provide specialised support to learners who might require interventions to develop to their full potential. The findings show that learners struggling with reading are appropriately placed in these schools. Another issue is the shortage of resources needed to teach them to develop their full reading potential.

As such, the organisational system of special schools also influences how the teachers organise their reading classes in these schools. Teachers receive learners of different ages and varying reading levels. The findings show that teachers rely on a mixed grouping of these learners to accommodate all struggling readers. If given the necessary resources, time, and support, FP teachers in these schools can effectively teach and support specialised reading for learners with mild intellectual developmental disorders.

7.2.2.5 *Time Allocation for Teaching Reading*

The findings indicated that reading in special schools in Gauteng is not a stand-alone subject and that it is not on the timetable. The teacher participants in the study expressed frustration that little time was allocated for teaching FP reading in special schools. Therefore, there is minimal teaching of reading in these schools. Teachers

are prepared to teach, but there is insufficient time. As such, limited time and resources are preventing the effective teaching of FP reading, and these factors should be seriously considered by host schools.

7.2.2.6 Reading Policy for the Foundation Phase

It emerged from the findings that there is no clear reading and assessment policy to guide the teaching and learning of FP reading in special schools in Gauteng. Individual schools and teachers decide on the reading curriculum. No common set of standards is followed for instruction and assessment. As a result, in some cases, no baseline assessments or assessment of reading levels are done to inform instruction and intervention. Research recommends that reading for struggling readers needs close monitoring, which requires teachers to know different components of reading to be assessed. Early Grade Reading Assessment (EGRA) was mentioned in the literature as being recommended by the DBE in South Africa, as a reliable and effective diagnostic reading tool to track individual learner's reading progress and detect reading difficulties in early grades. However, converging research findings in this study show that teachers in the special schools in Gauteng depend on informal assessments. No standard procedure is followed to assess specific reading skills, as it should be done since reading is not a stand-alone subject. In most cases, it is assessed as a component of a language subject such as Afrikaans.

7.2.3 Secondary Research Question 3

To what extent does the Foundation Phase reading environment in special schools in Gauteng promote the teaching and learning of basic reading skills for learners with mild intellectual developmental disorders?

Research informs us that environmental factors affect reading, which goes beyond the physical aspects and includes emotional, intellectual, and interactive aspects of the environment in which children read. For example, Kullmann (2013) discovered that natural light and ventilation can improve learners' mood and academic performance. Erikson (1997) found that colour and aesthetics can influence learners' emotions, behaviour, and learning. An attractive environment can promote a sense of calm, comfort, and engagement.

7.2.3.1 *Physical Reading Environment*

Studies report that an attractive learning environment can positively impact children's readiness to learn. According to Barrett (2015), a well-designed classroom can facilitate movement, collaboration, and exploration. The findings in this study reveal that learners with a mild intellectual developmental disorder are taught reading in the same ordinary classrooms as learners with no disability. There is largely a sense of rich print walls, though more could still be done. Regarding architectural requirements, the results show that they were not met comprehensively. The architectural requirements, such as two doors, sun space, mirrors, and appropriate seating, are the physical requirements for a reading room for learners with a mild intellectual disability that were not met.

7.2.3.2 *The Reading Environment*

Research informs us that the physical environment can influence children's behaviour, mood, and cognitive performance (Woolner, 2010). An attractive environment can promote engagement, motivation, and enjoyment, suggesting that a positive learning environment is required to boost reading skills.

This study used a checklist to investigate the physical learning environment. This research found that the reading classrooms were of the right sizes, with a small number of learners, and manned by qualified teachers with wide experience in teaching reading. Some reading rooms displayed rich print walls, the use of technology, and a few books. They exhibited the same style of rooms as in ordinary schools. However, the checklist indicated that the reading rooms did not meet some architectural requirements for a reading space for learners with a mild intellectual developmental disorder. For example, standards were not met for sound walls, carpeted floors, U-shaped furniture arrangement, and cold colours for painted walls (Erikson, 1977). There was also a lack of digital walls, which research recommends as effective for teaching reading to struggling readers.

Considering the requirements listed above, this study's findings demonstrate that the regular classrooms used in most schools as reading rooms do not promote the learning of reading by learners with a mild intellectual developmental disorder in special schools in Gauteng. In the South African context, research has recommended a reading room with a variety of print-rich walls, a thoughtful arrangement of furniture,

word walls, reading corners, theme tables, and different ways of displaying children's work. Therefore, it is recommended that special schools consider renovating the physical environment to meet the requirements of reading rooms for learners with mild intellectual development disorders.

7.2.3.2.1 Emotional Reading Environment

The findings confirm that the learners in these schools have an underlying disability and are referrals from other schools where they would have failed schoolwork. As such, the learners have low self-esteem, struggle to read and feel embarrassed to try it. The findings also confirm that most learners do not get the support they need in reading from parents, and findings show a lack of parental involvement in their reading. As a result, literature indicates that some children develop a negative response to reading and need motivation.

7.2.3.2.2 Intellectual Reading Environment

Most learners in the FP struggle with decoding, as indicated by converging research findings in the study. Research indicates that, as such, these children need extensive intervention. There were some cases where learners could not read Grade 1 work and did not want to try, as it was embarrassing. The findings in this study confirm that the learners were referred to a reading specialist in some schools. Where there are no specialists, the teacher participants confirmed that they did not know what to do next. However, teacher participants indicated that learners were progressing well in other cases. Therefore, the findings confirm that the FP classroom in special schools accommodates learners at different stages of reading development. As such, these learners exhibit varying levels of reading development.

7.2.4 Secondary Research Question 4

What is the relationship between special school teachers' and school principals' self-efficacy beliefs regarding teaching FP reading and the progress learners with a mild intellectual developmental disorder make at benchmark levels?

The findings of this study, to a greater extent, indicate that both teachers and principals expressed mixed views on the effectiveness of reading instruction and intervention practices employed in teaching reading in special schools to yield positive change. The interview and survey results show that some teacher and principal participants

saw progress, but others did not. For example, most teacher participants indicated that few learners could read at grade level when they exit the FP. The school principal participants shared the same view that learners were struggling in the study, but some progress was being made. On the other hand, as expressed by one principal, it is difficult to convince a 15-year-old to do grade 1 work; she saw this as impossible.

However, the findings show that there is broad agreement that reading is not being assessed separately in special schools. The findings indicate that the teachers and principals agreed that reading was being assessed within language subjects such as English or IsiZulu. As was indicated earlier, reading is not taught as a stand-alone subject. In addition, the findings also indicate that views converge to point out that reading in the FP is not being formally assessed in special schools. Both the teachers and principals, who participated in this study, agreed to a greater extent that there was no formal reading assessment. This finding ties up well with other findings in the study, such as no clear assessment and curriculum policy to guide reading in the FP.

7.2.5 Primary Research Question

What factors influence reading instructional and intervention practices employed by reading teachers in the FP in special schools, and how can these practices inform effective reading education for learners with mild intellectual developmental disorders?

In the current study, it was suggested in the conceptual framework that teaching reading is a complex process that involves the symbolic and organisational systems. The findings of this study demonstrate that it is not easy to overcome barriers to reading in special schools. Instead, it is a process that requires the two systems to work positively together. The findings further claim that teaching FP learners with mild intellectual developmental disorders to read is an even more complex process in special schools, as many factors influence the teaching and learning of reading.

The findings show that various factors, including disability, curriculum, the learner, the teacher, reading policy, learning environment, resources, parental involvement, assessment, and the organisational system of the school, influence the instructional and intervention practices employed by the teacher. These factors subsequently determine the extent to which the FP learners with intellectual developmental disorders master the foundational reading skills.

As indicated in the literature and supported by the findings, the reading teacher remains the key factor in FP reading in special schools. The ANOVA test results revealed a statistically significant difference in the teaching of MIDD reading between old and young teachers in special schools of Gauteng. Given that the p-value (0.012) was less than the significance level (typically 0.05), we rejected the null hypothesis (H₀): There is no significant difference in the teaching of MIDD FP reading between old and young teachers in special schools of Gauteng. The alternative hypothesis (H₁): There is a significant difference in the teaching of MIDD reading between old and young teachers in special schools of Gauteng is supported by the data. This suggests that teacher age is a significant factor influencing the teaching of FP reading in MIDD schools of Gauteng. These statistical results have implications for the teaching of reading in these schools that should be considered for practice.

It is clear in this study that all the participating teachers were qualified, experienced, and had a zeal to teach struggling readers to read. Even non-language teachers expressed willingness to get further training in reading. This allows the conclusion that teaching reading in the FP in special schools is in the hands of competent and willing teachers. The only stumbling block as expressed during the interviews and survey were limited time to teach, a lack of appropriate resources to teach the learner with an intellectual disability, a lack of support from parents, no technology integration, no special curriculum and no guiding policies which led them to improvise and adapt everything they teach learners to read. In the end, the present findings report little progress in acquiring foundational reading skills by learners with a mild intellectual developmental disorder in the FP in special schools, as reported by the teachers and principals in the study.

The learners in this study, viewed as a factor, are struggling readers, affected by mild intellectual developmental disorders, over-aged for their grade, unwilling to read at grade one level, and therefore, learners with low self-esteem. The findings in the current study confirm that the reading teacher must plan for differentiated instruction and intervention. In addition, there is that unwilling reader, who might need assistive technology and some motivation to read. When everything has been done, the findings in this study report some progress in reading as confirmed by some teachers and school principals. Therefore, it is clear from these findings that the learner with a mild intellectual developmental disorder influences the instructional and interventional

practices, and, in the end, this influences the extent to which the learner master the basic reading skills.

Regarding the reading curriculum for the FP, teachers adapt the mainstream curriculum and modify it to suit the needs of special school learners. The findings indicated that no endorsed reading curriculum exists for the FP in special schools. In this regard, teachers end up teaching whatever they can and employ any instructional and interventional practices as there are no set standards to guide teaching and assessment. To this end, fewer learners than expected benefit from the teaching, as demonstrated by the findings of this study.

Based on the findings, the physical learning environment for FP reading in special schools is the same old traditional classrooms, which lack the special architectural features to meet the needs of learners with mild intellectual developmental disorders. In this regard, they are not ideal for specialised learning of reading, resulting in low acquisition of basic reading skills. Further, the findings were that teachers needed some technological tools that were lacking to teach learners to read in these classrooms. The same could be said of other resources like e-books. The findings indicate that there are no books for FP reading in special schools.

This leads to the conclusion that there is a lack of appropriate reading resources for the FP in special schools, which, as indicated by the findings, leads to low mastery of foundational reading skills.

The teachers and principals also reported a lack of parental support from most parents. The findings indicate that this affects the reading homework given to struggling readers. For this reason, reading progress is slowed as learners only read at school. This was confirmed by the interview results, with participants expressing their frustration with parents who do not attend parent meetings and fail to help with homework.

How teachers organise classes for reading was confirmed in the findings as a factor influencing instruction and intervention practices employed in the reading room. It was earlier reported that learners sit in mixed groups to conceal differences in their reading abilities and avoid embarrassing some learners. In these groups, reading aloud, group reading and peer tutoring were employed. Therefore, mixed grouping was employed as an interventional and instructional practice to motivate learners to read. However,

in the absence of a formal assessment, the real effect of this sitting arrangement cannot be ascertained.

The findings also reveal that the FP reading and assessment policy in special schools to guide the teaching of reading is only an adapted version of the standard one. This means that the instructional and interventional practices and assessments employed by FP teachers in special schools might not meet the required standards. Relatedly, due to a lack of a clear assessment policy, it can be concluded that FP teachers are not assessing learners' reading levels and plan for appropriate instruction and intervention.

In summary, research findings have confirmed that contextual factors influence the teaching of Foundational Phase reading in many ways. In the end, and to a greater extent, contextual factors hinder or slow down the progress FP learners with a mild intellectual developmental disorder can make in reading in special schools.

7.3 CONTRIBUTION OF THE STUDY

This section highlights how the current study contributes to theory, methodology, and practice. The study has touched on various aspects of reading, and the findings are likely to add valuable knowledge to teaching FP reading in special schools.

7.3.1 Contribution due Focus Area of Study

Studies that have been carried out on reading in South Africa have mainly concentrated on reading to learn. This study, however, focuses on how children start learning to read in primary schools. Learners start by learning how to read before they can start to read to learn in all other subjects. As such, learning to read starts in the FP from Grade R to Grade 3 in South Africa. In this regard, FP reading is a vital area of research to focus on. Therefore, shifting the focus from how to read from Grade 4 onwards and focusing on the foundations of reading in school is a great contribution to the theory of reading.

Other theories, such as the theory of learning and motivation, inform the theory of learning to read. Linking these theories together creates a strong base that informs research, teaching, and learning to read. Such knowledge enables educators to consider the most effective ways of teaching children to read. Again, when this knowledge is applied in the classroom, it helps enhance teaching ability and support

learning reading activities. To this end, the findings of this study contribute to existing theories of reading motivation, learning, and intervention. Therefore, the findings of this study, in a way, add valuable knowledge to the theory of teaching and learning of reading.

7.3.2 Methodological Contribution

This study makes various contributions to research methodology, as highlighted in Chapter 4. It is mixed methods research following the convergence parallel design and collecting quantitative and qualitative data at the same time is challenging. How data was collected and analysed in this study sheds some light on how to face these challenges in the future.

Another contribution the study can make to methodology is to caution future researchers that permission letters granting entry to sites in Gauteng, and the actual entering of the sites, are two different things. Entry is not assured, even with those letters. On some sites, the researcher could only get easy entry to some sites based on his position as a government employee and teacher. The other way that makes it easy to enter sites is to be flexible, remain calm, and clearly explain the purpose of the visit. These findings are highlighted in Chapter 4.

Furthermore, the researcher gained valuable knowledge of thematic analysis. Though it was a challenge, a lot was learned, and this knowledge is expressed in the findings. The process followed in this study, reported in Chapter 4, can further help other researchers in the future.

7.3.3 Contribution to Practice

The interaction with teachers and principals during the survey and interviews invoked a sense of responsibility in teaching reading to learners with mild intellectual developmental disorders, which is confirmed by their responses. Some FP reading teachers in special schools confirmed the findings in their feedback. The findings of this study inform teachers on the success or failure of their efforts to teach learners with mild intellectual developmental disorders to read.

Furthermore, the findings may provide FP teachers with some ideas on how to persuade older struggling readers to read Grade 1-3 work. When put into practice, the findings presented in this study may provide reading teachers with guidance on

teaching FP learners in special schools. Most scholars have dwelt only on reading in mainstream schools for too long and left out the special schools.

7.4 REFLECTING ON THE LIMITATION OF THE STUDY

This study only focused on teaching reading to learners with mild intellectual developmental disorders, leaving out all other disabilities in special schools. The exclusive focus on MIDD may limit the applicability of the findings to other disability categories. This was an opportunity to explore how reading in the FP is being taught across all the other disabilities. There are more than one hundred special schools in Gauteng catering to different disabilities.

The study was carried out over a short period, and the short duration of the study may not capture long term trends or changes, potentially limiting the findings' relevance to extended periods. It would have been ideal to track FP learners' progress in learning over a longer period. A sample of reading records from a few schools was not deemed enough. In addition, it was found that the records say one thing and the teachers say another. Again, in the absence of an assessment policy and assessment of reading to a benchmark, reading records might not reflect the actual reading development of learners with mild intellectual developmental disorders placed in these schools for specialist attention.

Another limitation was that most of the study participants were female teachers. These statistics suggest that there are more female teachers in the FP than male teachers, meaning that most views raised here are biased towards female teachers. Furthermore, the study engaged FP teachers only, leaving out the learners. It would have been ideal to get a learner's perspective. Reading in school involves teaching and learning, and there is always the teacher and the learner.

Given these limitations, the study's findings should be interpreted with care. Future research should aim to address these limitations by incorporating diverse disability categories, longer study periods, more comprehensive data collection, and inclusive participant demographics.

7.5 RECOMMENDATIONS

This section presents the recommendations for training policy development, practice, and future research, based on the findings of the study.

7.5.1 Recommendations for Training

From the study findings, it is highly recommended that teachers who teach in special schools are trained to meet the needs of learners with special educational needs. However, the findings confirmed that not all the participants were trained to meet special education needs. Therefore, the findings of my study inform continuous professional teacher development (CPTD) programmes for reading FP teachers in special schools. The findings confirm that there is a need to develop some teachers to be competent with instruction, assessment, and interventions for struggling readers. This approach will benefit teachers appointed to the FP who are trained in other subjects, not reading.

The same can be said of teachers' training. The training of FP teachers in South Africa should focus on teaching reading and incorporate assistive technology training. Once the teacher's training gets it right, teaching reading in the FP will also come right. Relatedly, special programmes to further train special school teachers would, in the end, benefit learners in reading in these schools.

7.5.2 Recommendations for Policy Development

The evidence provided in Chapters 1 and 2 highlights the severity of the reading problem in primary schools internationally. The findings of this research, highlighted in Chapters 5 and 6, show how teachers struggle to teach reading in special schools, resulting in little progress being noted. This issue calls for special attention if poor performance in reading in the FP is ever to be resolved. Therefore, this study calls for policymakers to develop policies to guide the teaching of reading in the FP, especially in special schools in South Africa.

First, special schools have no endorsed reading curriculum for the FP. Schools decide what to teach instead of policy directing what has to be taught. This was revealed during interviews with special school reading teachers and principals. Theoretically, as the conceptual Framework suggests, a reading policy influences instruction and intervention in the classroom. A reading policy should set standards on what must be taught and assist with reading assessment, which is currently not done in special schools.

Clearly, there should be an assessment policy to guide assessment and set standards. This will enable teachers to assess learner progress based on set benchmarks. Such results can allow curriculum evaluation because assessment is based on a standard measure. The policy should also direct the hiring and placement of teachers to teach reading in the FP. Teaching reading is an expert's job and not for every other teacher.

Therefore, the DBE in South Africa is responsible for developing a curriculum and assessment policy and a practical reading programme for the FP special schools. The department should also collaborate with the Department of Higher Education and Public Service to set teacher qualifications for the FP and special schools.

7.5.3 Recommendations for Practice

This study's findings indicate that learners and teachers in special schools are overloaded with work. They cannot teach or learn reading effectively because of an overload. Teachers in the study confirmed that their timetables were fully packed with other subjects and they had no time to teach reading on its own. Again, there is little reading instruction since it is not a stand-alone subject in the FP. Coupled with this are the assessments and submissions, which consume more of teachers' time than teaching reading. It is therefore recommended that policymakers should come up with a practical reading programme for special schools in the FP. Such a programme should consider teachers' views that learning to read is the utmost need for learners with mild intellectual developmental disorders placed in special schools for reading. All the other learning in other subjects can come later when the learners can read.

When it comes to reading instruction, the research findings highlight the need for regular progress monitoring of FP reading so that instruction and intervention are data-driven. In addition, standardised reading assessments are recommended to check reading development in the FP. The findings further demonstrate that special schools should consider technology integration in teaching FP reading. In this regard, policymakers should allocate time, resources, and professional development for FP reading in special schools.

Special schools should also prioritise the teaching of reading in the FP together with numeracy, and nothing else. The argument raised in this study was that it is pointless to overload learners with work they cannot read. In addition, it is recommended that reading should be a stand-alone subject in the FP in special schools to give teachers

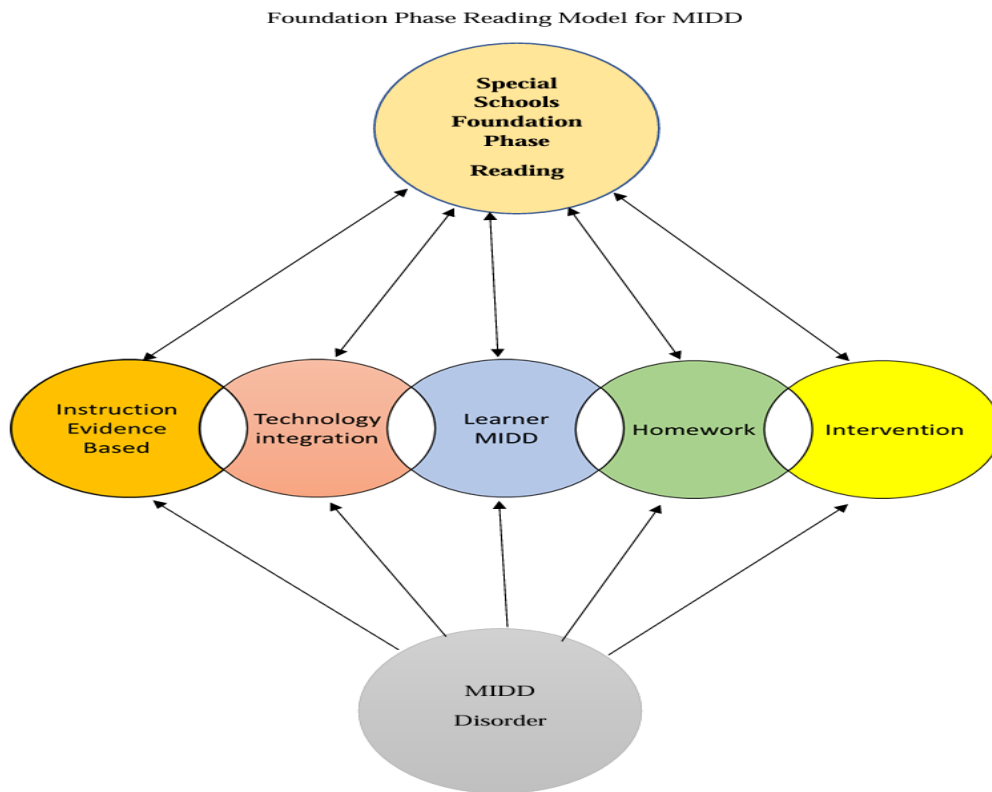
enough time to teach reading only. The literature revealed that the inability to read was the biggest challenge for learners with mild intellectual developmental disorders placed in special schools. The findings in this study suggest that teachers already understand how reading should be taught in the FP, but they need resources and enough time to teach the struggling readers. The ANOVA test result indicating that teacher age has influence in the teaching of FP reading should also be taken into consideration since it has some practical implications for MIDD schools. There are implications for professional development, to develop training programmes for teaching reading tailored to the needs of teachers across different age groups. Again, mentorship and peer support, pairing experienced teachers with younger teachers to facilitate knowledge sharing and support.

The other recommendation was to persuade parents of the FP learners in special schools to be part of the reading team. Collaboration between teachers and parents in the FP is vital. The findings confirmed that most of the parents do not support struggling readers. In most schools in South Africa, the school governing body (SGB) is responsible for running the school and has the power to convince parents to take charge of the reading of their children, and in this case, parental intervention to discuss the importance of early grade reading for these learners.

Research findings, therefore, identified technology integration, parental support, adequate instruction time, games, repeated reading, and multi-sensory instruction being effective for FP learners in special schools. These findings informed the development of a targeted reading model, Figure 7.1 below, designed to support MIDD struggling readers in special schools who are in the FP. The development of a tailored reading instructional model for learners with mild intellectual developmental disorder in special schools in Gauteng has a potential to improve reading instruction for these learners. By leveraging research-based strategies and adapting to their unique needs of MIDD learners, this model can help bridge the reading gap and unlock the full potential of these learners.

Figure 7.1

Reading model for MIDD Foundation Phase



7.5.4 Recommendations for Future Research

As a result of the findings and limitations identified in this study, it is recommended that researchers in special schools and those researching reading consider the following recommendations: First, get in touch with the school to inform them of your visit, even if it was agreed upon and known. There are always some surprises in special schools, and this can make entry to restricted sites like the special schools in Gauteng difficult.

This research was limited to teaching FP reading in special schools for learners with mild intellectual development disorders only. Further research is recommended to include learners with other disabilities to learn more about the teaching and learning of reading in special schools and compare the progress learners with disabilities make in reading.

Further research is also recommended to find out why female teachers dominate the FP in special schools and how this influences the teaching and learning of reading in

these schools. Further studies should also investigate why parents show little interest in the learning of their FP children in special schools. Research should also investigate technology-enhanced reading instruction and interventions for learners with a mild intellectual developmental disorder. Using the cell phone as a reading tool for learners struggling to read needs further research to find out how to harness the power of cell phones to enhance FP reading in special schools. Cell phones have become an indispensable tool in modern life. However, their potential as a learning tool in special schools, particularly the FP, remains largely untapped.

Furthermore, follow-up research is needed to determine the impact of FP reading in special schools as reflected by reading performance in the intermediate and senior phases. At a school level, the findings will help evaluate how the school reading programme benefits the learners.

7.6 CONCLUDING COMMENTS

The study highlighted the potential of specialised reading instruction and intervention to improve reading outcomes for learners with a mild intellectual developmental disorder (MIDD) in special schools in Gauteng. The study yielded several key takeaways. First, the findings of this study have shown that teachers' biographical profiles, particularly their teaching experience and reading specialist training, significantly influence their instructional and intervention practices. Second, the findings highlight the importance of providing diverse reading materials to meet the unique needs of MIDD learners. Third, the findings emphasise integrating technology in teaching reading to FP learners in special schools. Fourth, the findings suggest ongoing professional development in the FP to enhance teachers' knowledge and skills in supporting learners with MIDD. Fifth, the findings accentuate the importance of collaboration among teachers, parents, and other stakeholders in developing an effective reading programme for special school learners with mild intellectual developmental disorders.

This study was guided by the primary research question: "What factors influence reading instructional and intervention practices employed by reading teachers in the FP in special schools, and how can these practices inform effective reading education for learners with mild intellectual developmental disorders?"

Reflecting on the findings obtained, it was concluded and accepted that various factors influenced the teaching of reading in special schools, and the way FP learners with a mild intellectual developmental disorder master foundational reading skill. Contextual factors such as the learner's disability, the teacher, the curriculum, the reading environment, and reading and assessment policies were found to be the major factors affecting FP reading in special schools. The findings demonstrate that these factors influence reading instructional and interventional practices employed by the teachers. Furthermore, it was found that reading instruction and intervention have some influence on the FP in special schools in Gauteng. However, learners with mild intellectual developmental disorders are not yet meeting the desired goal, which is to be able to read at grade level. Some progress is being noted, but more can be achieved by integrating technology into the learning and teaching of reading. More importantly, developing a reading guideline tailor-made for learners with a mild intellectual disability, as well as parents being fully committed to their children's reading, the teaching of FP reading in special schools will achieve the desired goal.

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APPENDICES

APPENDIX A: SURVEY QUESTIONNAIRE



Faculty of Education

Department of Educational Psychology

FOUNDATION PHASE READING

UNIVERSITY OF PRETORIA

SURVEY

Teaching reading to learners with intellectual developmental disorders: Practices in the Foundation Phase

Dear Sir/Madam

The questionnaire is addressed to Foundation Phase teachers for the purpose of collecting data on the teaching and learning of reading in special schools of Gauteng. The information gathered is only used for research and academic purposes meant to benefit learners in these schools. Your time, effort and contribution in completing this questionnaire is greatly appreciated.

Thank you.

READING CLASS

1. How many learners in all in the Foundation Phase do you teach? Write a number. **Boys** **Girls**

2. What is their average ages

- Oldest (years) Youngest (years)

3.

4. Please complete the following statement by placing a cross (☒) in the column

	All/almost all •	More than half •	About half •	Less than half •	None •
a) About how many of these learners read at grade level?					
b) How many learners in this class can be good readers when they exit the Foundation Phase?					
c) About how many learners are in need of a reading intervention program?					
d) How many learners struggle with phonological awareness?					

5. From your experience what could be the reading level of the learners you teach?

Most are above average	
Most are average	
Most are below average	
Reading level vary greatly	

TEACHING LEARNERS TO READ.

6. How do you organize your class for formal reading?

Teach as a whole class	
Create ability groups	
Create mixed groups	
Individualised teaching	

7. Which of the following best describe how you teach learners to read?

Reading is included in all subjects	
Reading as a separate subject	
Both ways	

8. How much time do you allocate for formal reading?

Total number of teaching hours for all subjects in a week	
Total number of hours for teaching formal reading.	

9. How do you rate the adequacy of time allocated for reading? Circle the scale

Adequate Not adequate

10. When reading, how often do you do the following:

	Every day	Once a week	Once a month	Once a term	Once a year	Never
a) Assign reading as part of homework.	☐	☐	☐	☐	☐	☐
b) Teach phonics.	☐	☐	☐	☐	☐	☐
c) Teach learners decoding strategies.	☐	☐	☐	☐	☐	☐
d) Evaluate reading activities given to learners	☐	☐	☐	☐	☐	☐
e) Assess learners' reading levels.	☐	☐	☐	☐	☐	☐
f) Assess learners for reading comprehension	☐	☐	☐	☐	☐	☐
g) Take learners to the library.	☐	☐	☐	☐	☐	☐
h) Read aloud together as a class.	☐	☐	☐	☐	☐	☐
i) Teach learners reading fluency	☐	☐	☐	☐	☐	☐
j) Evaluate a reading intervention program.	☐	☐	☐	☐	☐	☐
k) Assess learners' library activities	☐	☐	☐	☐	☐	☐
l) Assess learners for spelling.	☐	☐	☐	☐	☐	☐
m) Plan for reading intervention	☐	☐	☐	☐	☐	☐
n) Report on learner's progress to parents.	☐	☐	☐	☐	☐	☐

o) Let learners use computers to read.	☐	☐	☐	☐	☐	☐	☐	☐	☐
p) Let learners use textbooks to learn to read.	☐	☐	☐	☐	☐	☐	☐	☐	☐
q) Use reading material on the internet.	☐	☐	☐	☐	☐	☐	☐	☐	☐
r) Learners read after the teacher	☐	☐	☐	☐	☐	☐	☐	☐	☐
s) Ask learners to read aloud on their own.	☐	☐	☐	☐	☐	☐	☐	☐	☐
t) Model for learners different reading strategies.	☐	☐	☐	☐	☐	☐	☐	☐	☐
u) Teach new vocabulary	☐	☐	☐	☐	☐	☐	☐	☐	☐
v) Give learners time to read to other learners	☐	☐	☐	☐	☐	☐	☐	☐	☐
w) Give learners time to read anything of their choice.	☐	☐	☐	☐	☐	☐	☐	☐	☐
x) Use different reading materials for different levels.	☐	☐	☐	☐	☐	☐	☐	☐	☐
y) Let learners answer oral questions on their own	☐	☐	☐	☐	☐	☐	☐	☐	☐
z) Let learners write in response to what they read.	☐	☐	☐	☐	☐	☐	☐	☐	☐

TEACHER READING INTERVENTIONAL PRACTICES

10. To what extent do you agree or disagree with each of the following statements? Please select one answer per row.

	I strongly agree	Agree	Neither/nor	Disagree	Strongly disagree	Don' t know
•						
•						
a) The school follows an intervention program.	☐	☐	☐	☐	☐	☐
b) I employ my own interventions.	☐	☐	☐	☐	☐	☐
c) Reading interventions are for the whole class.	☐	☐	☐	☐	☐	☐
d) Reading interventions have a time frame.	☐	☐	☐	☐	☐	☐
e) Reading interventions are formal.	☐	☐	☐	☐	☐	☐
f) Interventions used are known programmes.	☐	☐	☐	☐	☐	☐
g) Interventions are once off.	☐	☐	☐	☐	☐	☐
h) Early identification of learners at risk is crucial.	☐	☐	☐	☐	☐	☐

11. List reading intervention practices which you have used with your classes.

12. Which of these intervention practices do you consider to be effective for struggling readers?

13. Which other interventions do you also consider to be more beneficial for struggling readers?

14. How do these reading interventions benefit the learners?

15. What would you say are the challenges learners with mild intellectual developmental disorders face when learning to read?

16. How do you help these learners feel part of the class?

16.1. From your experience, is this helping to improve the learners' reading skills?

- Yes ☐
- No ☐
- Not sure ☐

•
Why do you say so?

•

17. When instruction and interventions fail to work what do you normally do?

18. What else needs to be done for reading in the Foundation Phase?

19. Name three problems you face in addressing the needs of struggling readers.

20. Indicate the extent to which you agree or disagree on how the school supports reading in the foundation phase.

	Strongly agree	Agree	Disagree	Strongly disagree
The school has a reading specialist.	☐	☐	☐	☐
Reading is taken seriously at the school.	☐	☐	☐	☐
Professional development for reading is available.	☐	☐	☐	☐
Computers are readily available.	☐	☐	☐	☐
Parents have great interest in their children's reading.	☐	☐	☐	☐
Class sizes for reading are manageable.	☐	☐	☐	☐
I always get the support I want.	☐	☐	☐	☐

PERSONAL INFORMATION

21. Gender

Male ☐

Female ☐

22. For how long have you been employed as a teacher? years.

23. How long have you been teaching reading in the Foundation Phase years

24. For how long have you been teaching in the school? Years.

25. Your age group?

Under 25 ☐

25 – 29 ☐

20 – 39 ☐

40 – 49 ☐

50 – 59 ☐

60 + ☐

26. Do you hold a teaching qualification? Yes ☐ No ☐

27. If yes, to what extent did you study the following in teacher training?

	Specialized	Introduction	Not study
•			
•			
a) English second language.	☐	☐	☐
b) Teaching reading.	☐	☐	☐
c) Special education.	☐	☐	☐
d) Remedial education.	☐	☐	☐
e) Psychology.	☐	☐	☐
f) Reading instructions.	☐	☐	☐
g) Intellectual disabilities.	☐	☐	☐
h) Teaching theories.	☐	☐	☐

Thank you once more for your time, effort and patience in completing this questionnaire.

APPENDIX B: INTERVIEW SCHEDULE FOR TEACHERS

READING IN THE FOUNDATION PHASE

UNIVERSITY OF PRETORIA

TEACHERS' INTERVIEW

Teaching Reading to Learners with Intellectual Developmental disorders: Practices in the Foundation Phase

1. Opening

My name is Stewart Karengwa (13336054) and I am a research student from the University of Pretoria of the Faculty of Education. I would like to interview you to get first-hand information about the teaching of reading in the Foundation Phase at your school.

2. Purpose

I would like to ask you some questions about your knowledge, experiences, understanding and perception of reading practices you employ and how your learners respond to instruction. This information will help teachers, learners, parents, and other stakeholders in special education to understand how learners with mild intellectual disability master foundational skills of reading.

3. Motivation

All the information gathered from you will be confidential and only used for educational purposes that will benefit Foundation Phase reading in special schools or further research on reading.

4. Time line

The interview should take about 15 minutes. Should we continue if you are available to respond to some questions?

Thank you

5. Main interview

5.1. Demographic information.

Gender? _____

1. How long have you been working as a teacher. _____ Years, reading teacher ____ y reading specialist _____ y
2. For how long have you been with this school? _____
3. Do you have a teaching qualification? _____
4. In which subject area did you specialize in during teacher training?

5. In which age category do you fall?

5.2. Teacher training and experiences.

1. How did you become a reading teacher in the school?

2. What motivates you to teach reading in the Foundation Phase?

3. What are your goals as a Foundation Phase reading teacher?

- **5.3 Teaching reading in the Foundation Phase.**

1. Which reading materials are you using for Foundation Phase reading?

2. How are your boys and girls performing in reading?

3. Which reading skills are you focusing on in the Foundation Phase?

4. Which reading instructional and interventional practices you are familiar with?

5. Why?

6.0 Assessing reading.

6.1 How do you assess your learners for reading?

6.2 When do you assess these learners?

6.3 What progress are your learners making in reading?

6.4 What are some of the challenges and needs of Foundation Phase learners in reading at this school?

6.5 How do you keep your learners connected with reading material you choose for them?

6.6 Which technologies are you incorporating in your reading programme?

7.0 Effectiveness of reading instructional and interventional practices

7.1 In your opinion, to what extent do you think your learners are mastering the foundational skills of reading?

7.2 Why do you say so?

7.3 How many of your learners read at grade level?

7.4 From your experience are the barriers in reading being broken?

7.5 What makes your teaching effective?

7.6 Do Foundation Phase learners at the school enjoy learning to read?

7.7 Are there any challenges you face in teaching Foundation Phase reading?

7.8 If yes, what needs to be done?

Well, it has been a pleasure finding out from you how the teaching and learning of reading is going on in the Foundation Phase at your school. I will quickly summarise the information that has been recorded during our interview.

8. Closing

8.1.

Summary_____

8.2 I would like to thank you for the time you took for the interview. Is there anything else you would like to add, or bring to attention regarding reading in the Foundation Phase at your school?

One more, thank you for the information and your time.

Thank you

APPENDIX C: INTERVIEW SCHEDULE FOR PRINCIPALS

READING IN THE FOUNDATION PHASE

UNIVERSITY OF PRETORIA

PRINCIPALS' INTERVIEW

Teaching reading to learners with intellectual developmental disorders: Practices in the Foundation Phase

1. Opening

My name is Stewart Karengwa (13336054) and I am a research student from the University of Pretoria of the Faculty of Education. I would like to interview you to get first-hand information about Foundation Phase reading at your school.

2. Purpose

This information will help researchers and other stakeholders in education to have a better understanding of reading in special schools of South Africa. The main goal is to improve and support reading in these schools.

3. Motivation

All the information gathered from you will be confidential and only used for educational purposes and research that will benefit special school learners, and teachers in reading.

4. Time line

The interview should take about 15 minutes. Should we continue if you are available to respond to some questions now?

Thank you

Let me start by asking you some questions about yourself

5.1 Demographic information.

1. Gender? _____

- How long have you been working as a teacher? _____ Years, reading teacher _____ y reading specialist _____ y
- How many years as principal? _____
- For how long have you been at the school? _____
- How many teachers are in the Foundation Phase? _____
- Some background during teacher training?

- How many learners in the Foundation Phase?

- In which age category do you fall? _____

5.2 Teacher training and special needs education

5.3 Teaching of reading in the foundation phase

5.4 Reading instructional and interventional practices.

1. What do you see as barriers to the teaching of reading to learners with mild intellectual disability in special schools?

2. How familiar are you with the state of reading in South African schools, and where do you see special schools?

3. Which reading intervention programmes have been implemented in the school?

4. What would you say has been the impact of Foundation Phase reading programme in the school?

5.5 Evaluation of Foundation Phase reading programme/s.

1. How does the school decide on a reading curriculum for the Foundation Phase?

2. Who evaluates and supervises the teaching and learning of reading in the Foundation Phase at the school?

3. How many times a year do you assess reading at the school?

4. To what extent does the school embrace technology in the teaching and learning of other subjects offered at the school?

5. What is your view on the state of reading material and equipment for the Foundation Phase?

6. What progress do you think learners in the Foundation Phase are making in reading?

7. What are the chances of learners reading at grade level as they exit Foundation Phase?

Thank you for the interview. It was a pleasure finding out from you how the school supports reading in the Foundation Phase. I will quickly summarise the information that has been recorded during the interview.

8. Closing

1. Summary of the interview.

I would like to thank you for the time you took for the interview. Is there anything else you would like to add or bring to attention regarding reading in the Foundation Phase?

- ***Once more thank you so much for the information and your time.***

Thank you

APPENDIX D: READING ENVIRONMENT OBSERVATION TOOL

Teaching reading to learners with intellectual developmental disorders: Practices in the Foundation Phase

Please tick the appropriate box of what has been observed in the reading classroom and add some comments.

Male ☐

Fem ☐

Criteria	Yes	Partially	No	Comment
1. READING CLASSROOM				
• ENVIRONMENT CONDUSIVE FOR READING.				
•				
• There is enough light.				
• Good ventilation				
• Enough chairs and tables				•
• Learners are not crowded				
• The room is relatively quiet				
2. READING MATERIALS AVAILABILITY				
• Each learner has own reading book appropriate to level.				
• Charts on phonics are enough appropriate for grade				
• Reading books appropriate for grade				
• There is a projector				
• There are computers				
• There is a library or reading corner.				
3. READING TEACHER				
• Teacher has a lesson plan				

• Teacher has records for learners				
• The teacher is enthusiastic with teaching reading				
• Teacher has knowledge of reading interventions				
• Teacher has knowledge of intellectual disability				
• Teacher has knowledge of phonics and teaching reading				
• Teacher motivates learners				
• Teacher can teach learners to read				
• Teacher knows his/her class				
• Teacher teaches individually				
4. LEARNERS				
• Learners follow instruction on reading from the teaches				
• Learners are enthusiastic with reading				
• Learners read in groups				
• Learners learn to read freely				
• Generally, it's a good reading class				
• Learners read in different ways (silent etc)				
• Learners read in peers				
General comment:				

APPENDIX E: SAMPLE REQUEST LETTER TO GAUTENG

EDUCATION DISTRICTS



Faculty of Education

Department of Educational Psychology

February 22, 2024

The Director

Johannesburg North District

Gauteng Department of Education

Dear Sir/Madam

I am a PhD student at the University of Pretoria. In partial fulfilment of my final thesis, I am currently undertaking research on ***“Teaching Reading to Learners with Intellectual Developmental Disorders: Practices in the FP”*** In this regard, I am requesting permission to carry out the study in your special schools.

I would be grateful if you can allow me to distribute a questionnaire to FP teachers in all schools, interview teachers and principals in some schools, observe the reading classroom and analyse class records for reading in some schools. I will only interact with the teachers and principals for a limited period. All the information gathered will be confidential and only used for academic purposes.

The results of my study are expected to help understand how learners with mild intellectual developmental disorders learn to read.

Please find attached the permission letter from the department.

Respectfully yours

Stewart Karengwa

APPENDIX F: RESEARCH REQUEST LETTER TO SPECIAL SCHOOL PRINCIPALS



Faculty of Education

Department of Educational Psychology

14 November 2023

Dear Principal

I am Stewart Karengwa, a PhD student at the University of Pretoria. The title of my study towards my PhD degree is ***“Teaching reading to learners with intellectual developmental disorders: Practices in the FP”*** The aim of the study is to investigate the teaching and learning of reading in the FP and to make recommendations to strengthen and improve reading for learners with intellectual developmental disorders in special schools.

I am working under the supervision of Professor Funke Omidire from the department of Educational Psychology at the University of Pretoria.

I am asking permission to carry out a survey at your school. The survey questionnaire will be distributed to FP teachers who in turn are being requested to complete and return them to you and then to the district.

Participation of the teachers in this survey is voluntary and confidential. They have the right to withdraw at any point during the research study without any consequences or explanations. You can be assured that their decision will be respected. Confidentiality and anonymity will be guaranteed always by using pseudonyms to the participants during the transcript phase. No participant names or personal information will be reported in my findings. All data collected will only be used for academic purposes.

You may ask questions before the time of participation. If you have any concerns regarding the data collection procedures, please notify me or my supervisor. As respondents, the teachers will have the opportunity to access the findings.

We will also request teachers' permission to use the data, confidentially and anonymously for further research purposes as the data sets are the intellectual property of the University of Pretoria and, where relevant, project funders. Further research may include *secondary data analysis, the use of the data for teaching purposes, data sharing, and open access data use. The confidentiality and privacy applicable to this study will be binding on future research studies.

* **'Secondary data analysis'** means that future studies may use data that exist from previous studies for research purposes to investigate a research problem.

'Data sharing' means that researchers make use of data that already exists.

'Open access data use' means that, all around the world, researchers agree to freely share data that already exist, and use this existing data in research.

Since their participation in the study is voluntary, please note that no participants will receive any monetary awards or awards in kind.

Please indicate by signing your understanding of information shared above, the purpose being to give your **permission**.

Kind regards

Stewart Karengwa

E- mail address: stewartkarengwa@yahoo.com

Contact number : 0747033878

Supervisor: Professor Funke Omidire

E- mail address: Funke.omidire@up.ac.za

PERMISSION FOR RESEARCH

I _____ give permission to Stewart Karengwa to include the school and FP teachers in his research on 'Teaching reading to learners with intellectual developmental disorders: Practices in the FP'

Signature: _____

Date: _____

APPENDIX G: CONSENT LETTER TO FP READING TEACHERS



Faculty of Education

Department of Educational Psychology

12 February 2024

Dear Teacher

I am a PhD student in the Department of Educational Psychology at the University of Pretoria. The title of my study is ***“Teaching reading to learners with Intellectual Developmental Disorders: Practices in the FP.”*** The aim of the study is to examine the teaching and learning of reading in the FP and to make recommendations to strengthen and improve reading for learners with mild intellectual developmental disorders in special schools.

I am working under the supervision of Professor Funke Omidire from the department of Educational Psychology at the University of Pretoria.

I kindly invite you to participate in this study. There are four parts to this research, a survey using a semi-structured printed questionnaire, an interview, observation of the reading room and documentary analysis of reading records. The survey questionnaire will also be distributed to other MIDD schools in Gauteng. The interview will be scheduled as per your availability and will take place at the school. The interview should take approximately 30 minutes.

The aim of the classroom observation is to observe the teaching and learning environment for learners with mild intellectual developmental disorders. The reading room will only be observed to identify the instructional practices employed by the teacher and not on teaching or the content of the lesson. The teacher will also be asked to avail reading records for the classes taught and to track reading progress of learners.

Your participation in this study is voluntary and confidential. You have the right to withdraw at any point during the research study without any consequences. You can be assured that your decision will be respected. Confidentiality and anonymity will be guaranteed always by using pseudonyms to the participants during the transcript phase. No participant names or personal information will be reported in my findings.

In participating in this research study, you will be asked for permission to make audio recordings of the semi-structured interview. The purpose thereof is to make transcription of data valid and authentic. The recording will be safely kept at the University of Pretoria. Only my supervisor and I, that will have access to the audio recordings. All data collected will only be used for academic purposes.

You may ask questions before the time of participation. If you have any concerns regarding the data collection procedures, please notify me or my supervisor. As a participant, you will have the opportunity to access and verify the recorded views and the transcripts of interviews made in case there is need to do so.

We would also like to request your permission to use your data, confidentially and anonymously for further research purposes as the data sets are the intellectual property of the University of Pretoria and, where relevant, project funders. Further research may include *secondary data analysis, the use of the data for teaching purposes, data sharing, and open access data use. The confidentiality and privacy applicable to this study will be binding on future research studies.

* **'Secondary data analysis'** means that future studies may use data that exist from previous studies for research purposes to investigate a research problem.

'Data sharing' means that researchers make use of data that already exists.

'Open access data use' means that, all around the world, researchers agree to freely share data that already exist, and use this existing data in research.

Since your participation in the study is voluntary, please note that no participants will receive any monetary awards or awards in kind.

Please indicate by signing your understanding of information shared above, the purpose being to give your consent to participate.

Kind regards

Stewart Karengwa

E- Mail address: stewartkarengwa@yahoo.com

Contact Number: 0747033878

Supervisor: Professor Funke Omidire

E- mail address: Funke.omidire@up.ac.za

PERMISSION FOR RESEARCH
I _____ give permission to Stewart Karengwa to include me as a participant in his research on ‘Teaching reading to learners with intellectual developmental disorders: Practices in the FP’ Signature: _____ Date: _____

APPENDIX H: CONSENT LETTER TO SPECIAL SCHOOL PRINCIPALS



Faculty of Education

Department of Educational Psychology

14 February 2024

Dear Principal

I am a PhD student in the Department of Educational Psychology at the University of Pretoria. The title of my study is “Teaching reading to learners with intellectual developmental disorders: Practices in the Foundation/Orientation/Induction/Preparatory Phase” The aim of the study is to examine the teaching and learning of reading in the FP/Orientation/Induction/Preparatory Phase or the (lowest phase at the school), and to make recommendations to strengthen and improve reading for learners with a mild intellectual developmental disorder in special schools

I am working under the supervision of Professor Funke Omidire from the department of Educational Psychology at the University of Pretoria.

First, I am asking permission to carry out the research at your school. Secondly, as one of the participants, you are also being kindly invited to participate in the principals’ interview. The interview will be scheduled as per your availability and will take place at the school. The interview should take approximately 30 minutes.

There are five parts to this study and Foundation/Orientation/Preparatory/Induction Phase (**the lowest phase at the school**) teachers are also being invited to participate:

- Principal interview (using semi-structured interview schedule)
- Teacher interview (using semi-structured interview schedule)
- Teacher survey (using semi-structured questionnaire)
- Observation of the reading teaching, and learning environment

- Analysis of reading records of learners

The survey, teacher interview, observation of reading environment, and analysis of reading records will involve two FP teachers. The interview will be scheduled as per the teacher's availability and will take place at the school. The teacher interview should take approximately 30 minutes.

The survey questionnaire will be distributed to 34 MIDD schools in Gauteng. Four of your FP teachers are also invited to participate. **Please may you help to facilitate the return of the completed questionnaire to the researcher using the enclosed postage envelope.**

The aim of the classroom observation is to observe the teaching learning environment for learners with mild intellectual disability. The learners will not be active participants in the observation. It is only the teacher who will be involved in order to identify some reading instructional and interventional practices in the reading room. The teacher will also be asked to avail reading records for the classes taught.

Your participation in this study and that of teachers is voluntary and confidential. You have the right to withdraw at any point during the research study without any consequences or explanations. You can be assured that your decision will be respected. Confidentiality and anonymity will be guaranteed always by using pseudonyms to the participants during the transcript phase. No participant names or personal information will be reported in my findings.

In participating in this research study, you will be asked for permission to make audio recordings of the semi-structured interview. The purpose thereof is to make transcription of data valid and authentic. The recordings will be safely kept at the University of Pretoria. Only my supervisor and I, that will have access to the audio recordings. All data collected will only be used for academic purposes.

You may ask questions before the time of participation. If you have any concerns regarding the data collection procedures, please notify me or my supervisor. As participants, you will have the opportunity to access and verify the recorded views and the transcriptions of interviews made in case there is need to do so.

We would also like to request your permission to use your data, confidentially and anonymously for further research purposes as the data sets are the intellectual

property of the University of Pretoria and, where relevant, project funders. Further research may include *secondary data analysis, the use of the data for teaching purposes, data sharing, and open access data use. The confidentiality and privacy applicable to this study will be binding on future research studies.

* **'Secondary data analysis'** means that future studies may use data that exist from previous studies for research purposes to investigate a research problem.

'Data sharing' means that researchers make use of data that already exists.

'Open access data use' means that, all around the world, researchers agree to freely share data that already exist, and use this existing data in research.

Since your participation in the study is voluntary, please note that no participants will receive any monetary awards or awards in kind.

Please indicate by signing your understanding of information shared above, the purpose being to give your consent to **participate**.

Kind regards

Stewart Karengwa

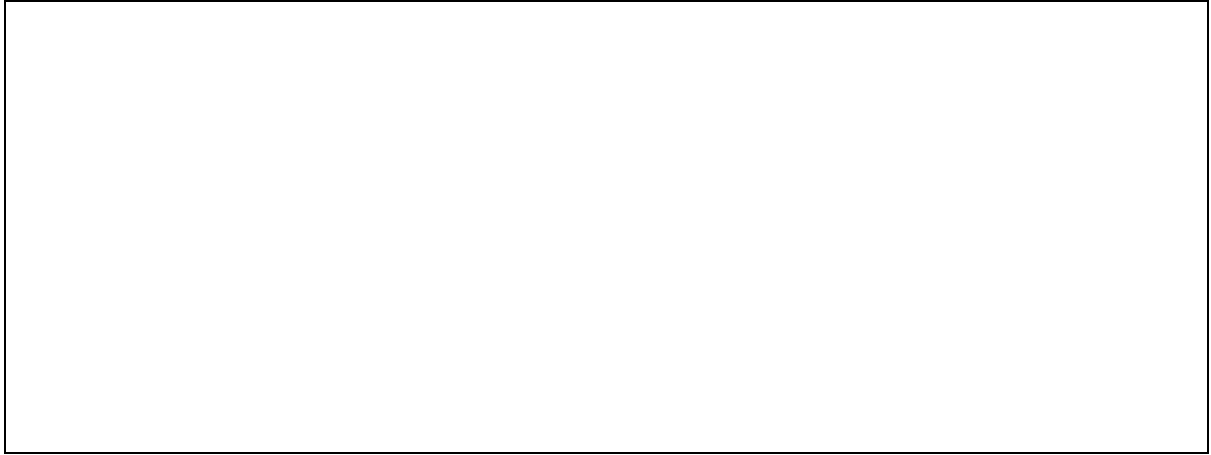
E- mail address: stewartkarengwa@yahoo.com

Contact Number: 0747033878

Supervisor: Professor Funke Omidire

E- mail address: Funke. omidire@up.ac.za

PERMISSION FOR RESEARCH
I _____ give permission to Stewart Karengwa to carry out the study at the school and to include me as a participant in his research on the teaching of reading to learners with intellectual developmental disorders: Practices in the FP Signature: _____ Date: _____



APPENDIX I: DATA COLLECTION SCHEDULE



Faculty of Education

Department of Educational Psychology

Teaching Reading to Learners with Intellectual Developmental Disorders: Practices in the Foundation Phase

Proposed Data Collection Schedule

STAGE	STEPS	SCHEDULED DATE
Ethics application	Ethics application submission	November 2023
Permission to enter sites	1.Ethics clearance UP 2.GDE application 3.Consent letters to principals 4.Consent letters to teachers	December 2023
Permission for research Collecting responses	1.Clearance from GDE 2.Permission and request for help to district offices 3.Permission letter from schools 4.Consent letter from teachers	January 2024
Survey Using semi-structured questionnaire	1.Permission for research 2.Consent from school principals 3.Consent from teachers	January 2024
Teacher interviews using open-ended questions	1.Interviews, audio recordings 2. Playing back audio to participants	January-February 2024

Principal interview Using semi-structured questionnaire	1.Consent from principals 2.Interview audio recording 3. Playing back audio to participants	January-February 2024
Reading site observation using observation tool Teacher interview	1.Consent from principals and teachers 2.Observation of sites/lesson 3.Taking field notes 4.Taking pictures 5. Recording	January-February 2024
Reading assessment records 4 Analysis of formative and informative assessments	1.Consent from teachers and Principals 2.Teaching letter sounding, decoding, Word reading, passage Reading, comprehension by the teacher 3.Tracking progress with teacher 4. Analysing data from reading records	January-February 2024
Collection of responses Survey questionnaire	1.Collecting survey questionnaires from districts	February 2024
Collection of progress reports	1.Collecting reports from Teachers	February – April 2024

Formative and informative assessments	2. Analysis of reading progress reports. 3. Data analysis. 4. Title registration. 5. Application for submission	
Final draft combined chapters	1. Writing up the final draft. 2. Final draft to supervisor.	
Final report	3. Final report. 4. Submission	May – June 2024

APPENDIX J: DESCRIPTIVE RESULTS FOR THE SURVEY

QUESTION	DATA CAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONSES																										COMMENTS	SUMMARY						
		GW	ES	TS 2	JE	GW 1	JS	JW 3	GE 1	EN 3	GS	SN	JW 2	JW 1	JS 1	JN	EN	JW 4	SED, W3	TS 4D	GE 2	SED W1	SED W2	TS 1C	SED W4	GE 4	TS 2B			GE 3	TS 1B				
	READING CLASS	9	10	24	150	10	10	9	15	13		11	11	6	8	12	16	7	9	11	10	11	9	13	9	10	4	9	4	1 Boys					
	1 Number of learners taught	7	12	54	30	5	3	10	6	6		14	6	15	11	6	3	11	12	6	9	7	8	10	8	8	6	4	6	2 Girls					
	2 Average age of learners	15	16	17	16	14	15	15	15	16		14	14	14	15	14	14	14	15	14	15	16	15	16	14	12	15	13	15	Years					
	3 Learners reading at grade level	a	3	5	4	4	5	5	5	4		5	5	3	5	3	4	3	5	2	4	5	5	5	5	5	5	6	5	1 All					
		b	3	3	4	3	3	3	3	4	2		5	3	5	4	2	4	2	4	4	2	4	4	4	4	4	4	4	2	More than half				
		c	2	2	1	1	2	2	2	1	3		2	2	3	3	2	1	3	1	1	1	2	1	1	1	1	1	1	1	1	Half			
		d	3	3	1	2	3	3	3	2	3		2	3	3	2	3	1	3	1	1	2	2	1	1	1	1	1	1	1	1	Less than half			
		e																													5. None				
	4 Reading Level of class	a																													1. Most above average				
		b									2				2		5		2													2. Average			
		c	3	3					3	3	3		3	3		3					3	3										3. Below average			
		d			4	4	4								4	4		4	4		4	4	4	4	4	4	4	4	4	4	4	4	Levels vary greatly		
	TEACHING READING																																		
	5 Organise class for reading	a	1	1	1		1	1	1				1		1		1		1													1. Teach as class			
		b											2																				2. Ability groups		
		c	3	3		3	3	3	3	3	3		3				3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	Mixed groups	
		d										4	4	4		4	4	4	4														4. Individuals		
	6 Reading timetabling	1	1	1		1	1	1	1	1				1	1				1	1		1											5. In other subjects		
												2																					6. Reading stand alone		
		3	3		3	3	3					3	3	3	3	3	3	3	3		3		3	3	3	3	3	3	3	3	3	3	7. Both ways		
	Total Teaching load	28	30	20	0	30	26	28	28	28		30	26	29	30	28	0	27		30	0	25	28	0	0	30	0	28				Periods			
	7 Teaching reading on his own	4	3	1	0	0	4	4	0	4		3	3	2	0	3	0	3	3	3	3	3	2	0	0	2	0	2				Periods			

QUESTION	DATA CAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONDENTS																										COMMENTS	SUMMARY			
		GW	ES	TS 2	JE	GW 1	JS	JW 3	GE 1	EN 3	GS	SN	JW 4	JW 1	JS 1	JN	EN	JW	SED, W3	TS 4D	GE 2	SED W1	SED W2	TS 1C	SED W4	GE 4	TS 2B			GE 3	TS 1B	
9	How often do you do the following	a	2	2	6	2	2	2	2	2	3		2	2	2	2	1	2	1	6	2	2	1	2	6	6	0	6	2	6	1. Everyday	
	Teach phonics	b	2	2	2	1	2	2	2	1	2		2	2	1	2	2	2	4	2	6	2	2	2	2	2	2	2	2	1	2. Once a week	
	Teach decoding strategies	c	1	1	2	2	1	1	1	2	2		3	1	2	2	1	2	1	0	1	3	1	2	6	2	6	6	2	6	3. Once a month	
	Evaluate reading activities	d	1	1	2	4	1	1	1	4	1		4	1	4	1	1	2	1	6	1	6	1	3	6	6	6	6	3	6	4. Once a term	
	Assess reading levels	e	4	4	2	4	4	4	4	5	5		4	4	3	4	4	2	4	2	1	2	2	2	2	2	2	2	2	2	5. Once a year	
	Assess comprehension	f	2	2	1	2	2	2	2	2	2		3	2	2	2	2	1	2	2	4	2	2	2	2	2	2	2	2	2		
	Take learners to the library	g	3	4	6	2	3	4	2	6	6		3	3	3	3	4	6	4	6	6	2	6	6	6	6	6	6	6	6		
	Read aloud as class	h	1	1	2	2	1	1	2	2	2		2	4	2	1	2	1	1	2	2	2	1	2	2	1	2	2	2	2		
	Assess decoding strategies	i	2	3	2	2	2	2	2	2	1		3	3	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2		
	Evaluate reading programme	j	4	4	2	4	4	4	2	5	6		4	4	2	4	4	1	4	2	2	2	2	2	2	2	2	2	2	2		
	Assess library activities	k	4	4	6	4	4	4	2	6	6		3	4	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
	Assess spelling	l	2	2	1	3	2	2	4	2	1		2	2	3	2	2	2	2	6	2	6	6	6	6	6	6	6	6	6	6	
	Plan reading interventions	m	3	2	2	3	3	3	3	4	2		2	4	1	3	2	1	2	2	2	2	2	2	2	2	2	2	2	2		
	Report progress to parents	n	4	4	2	4	4	4	4	4	3		4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4		
	Learners use computers reading	o	6	5	6	2	6	6	5	2	6		3	4	6	6	3	5	3	3	3	3	3	3	3	3	3	3	3	3		
	Use textbooks for reading	p	6	6	2	1	6	6	4	1	2		2	4	2	6	3	1	3	3	3	3	3	3	3	3	3	3	3	3		
	Use internet reading	q	1	6	4	2	6	6	3	6	6		3	3	6	6	3	2	3	3	3	3	3	3	3	3	3	3	3	3		
	Read after teachers	r	1	1	1	1	1	1	4	1	1		1	4	2	1	2	1	2	2	2	2	2	2	2	1	2	2	3	2		
	Read aloud alone	s	1	1	2	2	1	1	3	2	1		2	3	2	1	2	1	2	2	2	2	2	2	2	1	2	2	2	2		
	Teacher model reading strategies	t	2	1	4	2	1	1	4	2	1		4	3	4	1	3	2	2	2	2	2	2	2	2	2	2	2	2	2		
	Teach new vocabulary	u	1	2	1	2	2	3	3	2	2		2	6	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2		
	Reading to other learners	v	2	1	2	3	1	1	3	2	2		2	6	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2		
	Time to reading anything	w	2	2	2	2	2	2	3	2	2		2	6	3	2	3	1	2	2	2	2	2	2	2	3	2	2	2	2		
	Use different materials different levels	x	1	1	2	2	1	1	2	1	1		2	2	3	1	1	1	1	2	2	1	2	2	2	2	2	2	2	2		
	Answer oral questions	y	2	2	1	2	2	2	2	1	1		2	2	3	2	2	1	2	1	2	1	1	1	0	1	2	2	1	0		
	Read and respond in writing	z	2	2	2	2	2	2	2	1	2		2	2	3	2	3	1	2	1	2	1	2	2	0	2	2	2	1	0		
	TEACHER INTERVENTION PRACTICES																															
10	Extent you agree or disagree																															
	School follow intervention programme	a	5	5	4	1	5	5	5	5	3		4	1	4	5	2	4	2	2	2	2	2	2	2	2	2	2	2	2	1. Strongly agree	
	I employ own intervention	b	2	1	4	5	1	1	1	1	1		1	1	2	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2. Agree	
	My interventions have time frame	d	3	2	4	4	2	2	2	4	1		4	2	4	2	3	1	2	1	1	1	1	1	1	1	1	1	1	1	3. Neither/nor	
	My Interventions formal	e	3	3	4	5	3	3	3	1	2		3	3	4	4	3	1	3	1	1	1	1	1	1	1	1	1	1	1	4. Disagree	
																															5. Strongly disagree	

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONSES																									COMMENTS	SUMMARY					
		GW	ES	TS 2	JE	GW 1	JS	JW 3	GE 1	EN 3	GS	SN	JW 2	JW 1	JS 1	JN	EN	JW	SED, W3	TS 4D	GE 2	SED W1	SED W2	TS 1C	SED W4	GE 4			TS 2B	GE 3	TS 1B		
	Intervention known programme	f	3	3	4	4	4	4	4	1	3	5	4	5	4	2	1	2	1	1	1	1	1	1	1	1	1	1	1				
	Interventions once off	g	3	4	4	5	4	4	4	3	3	4	4	5	4	2	2	2	2	2	2	5	2	2	2	2	3	1	2	2			
	Early identification at risk learners	h	2	4	5	4	4	4	4	5	3	5	4	5	4	3	5	3	5	4	5	1	4	5	2	5	2	5	5				
	Intervention for whole class	c	3	3	1	2	2	2	3	1	1	1	3	4	2	2	1	2	1	1	1	5	1	5	4	1	5	1	1				
	Group work			0		0		0	0						0																		
11	List interventions employed																																
	Reading aloud	1		1					1																								
	Modelled reading	2								2				2		2		2															
	Reading class	3			4																			3									
	Reading to teachers	4	4		4																												
	Create more time	5								5															5	5							
	Computers	6			6										6							6											
	Thress chart	7											7					7		7			7		7				7	7			
	Peer teaching	8									8																						
	D/CAPS	9																															
	TOC	10																															
	One-on-one	11				11																											
	Providing feedback	11																															
Phonics				13								13				13	13		12	13	13	13	13	13	13	13	13	13	13	13	13		
12	Most effective interventions			0			0	0					0		0																		
	Reading aloud	1			1													1		1													
	Modelled reading	2				2											2				2	2	2										
	Reading to class	3																3							3								
	Reading to teachers	d															4									4							
	Create time	e															5		5														
	Closing computers	f			6									6				6									6						
	Thress chart	g															7																
	Peer teaching	h										8						8															
	D/CAPS	i																9															
	TOC	j																10															
	One-on-one	k	11							11								11		11							11		11				
	Phonics	l				13							13				12	12		12													
Repeated	m				13													13	13														

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONSES																									COMMENTS	SUMMARY			
		GW	ES	TS 2	JE	GW 1	JS	JW 3	GE 1	EN 3	GS	SN	JW 2	JW 1	JS 1	JN	EN	JW	SED, W3	TS 4D	GE 2	SED W1	SED W2	TS 1C	SED W4	GE 4			TS 2B	GE 3	TS 1B
13	Which intervention is beneficial?		0			0	0	0	1	0		0	1	0	0				1	1	1				1	1	1	1	5. Using computers		
	1. Reading to peers			1																									6. Online teaching		
	2. Funny reading games												3			3						3							7. Visual aids		
	3. Reading to class																												8. Teaching phonics		
	4. Use technology	3			3	3													5						1				9. Peer teaching		
																							6								
14	How the intervention benefits learners		0			0	0	0		0				0	0																
	1.Video help learners comprehend	a	1		1									1			2				1										
	2.Boosts confidence	b	2		2																										
	3.Improves reading fluency	c			3								3	2																	
	4.Feedback	d																													
	5.See picture and words	e				5				5										5		5	5	4	5	5	5	5	5		
15	Challenges learners face in reading																														
	1.Decoding	a	1	1	1		1	1	1	1			1		1						1										
	2.Can not read letters	b			2		2		2		2		3									2	2					2			
	3.Spelling	c	3	3	3		3						3		3																
	4.Can not read words	d				4							4			4	4	4	4			4	4	4	4	4	4	4	4		
	5.Phonics	e	5																												
	6.Reading English words	f								6																					
	7.Alphabet	g	7				7	7				7																			
	9.No reading books	h							8																						
	10.Dysgraphia	i																9													
	11.Too much work- not reading	k																													
15.1	Is this helping learners improve?	a	1	1	1	1	1	1	1	1	1		1	1	1	1	1						1					1	1.YES		
		b																		3	3	3	3				3	3		2.NO	
		c																												3.NOT SURE	
15.2	Why say so?																														
	1.They read at their own pace	2	2	2			1	1					1						0	0	0	0	0				0	0			
	2.Not embarrassed reading one								2																	2					
	3.Positive comments encourage learners				3	3							3																		
	4.Knowing learners strengthen relationships																														
	5.Learners develop confidence	5	5		5				5				5				5				5										

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONSES																										COMMENTS	SUMMARY	
		GW	ES	TS 2	JE	GW 1	JS	JW 3	GE 1	EN 3	GS	SN	JW 2	JW 1	JS 1	JN	EN	JW	SED, W3	TS 4D	GE 2	SED W1	SED W2	TS 1C	SED W4	GE 4	TS 2B			GE 3
16	When instruction intervention fails what do you do ?													0			0													
	1.SBST	a	1			1	1	1	1	1		1																		
	2.Change teaching method	b															2		2											
	3.Read for learners	c										3			3						3	3	3		3	3	3	3	3	
	4.Individual attention	d								4															3	3		4		
	5.Re-design activity	e	5							5																				
	6.ISP	f				8																								
	7.Visual aids	g	7	7								7																		
	8.SNA	h																												
	9.Use games	i		6																										
	10.Word search	j		10																										
	11.Rhyme search	k		11				11																						
	12.More remedial	l	12																											
16.1	How do you help learners to feel part of the class?																													
	1.Read on their own	a			1			1	1			1													1	1				
	2.Read short text	b														2														
	3.Write simple sentences	c																												
	4.Read for them	d										3						3		4				4	4	4	4			
	5.Call them by their names	e			4	4					5	5																		
	6.Practice the alphabet	f																												
	7.Reading to teacher	g	7	7			7	7				7	7	7																
	8.Reading as class	h		8						8							8		8		8	8					8		8	
17	What else needs be done for FP reading?												0									0								
	1.Library	a							1			1						1												
	2.Lot of visual aids	b											2	2																
	3.More reading	c	3	3	3		3	3	3		3	3																		
	4.Inform Parents	d								4	4				4	4		4	4				4	4	4	4	4	4		4
	5.More time	e											5			5			5											
	6.Workshops for reading teachers	f	6	6			6			6		6	6																	
	7.Rich print classrooms	g				8																								

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONSES																										COMMENTS	SUMMARY		
		GW	ES	TS 2	JE	GW 1	JS	JW 3	GE 1	EN 3	GS	SN	JW 2	JW 1	JS 1	JN	EN	JW	SED, W3	TS 4D	GE 2	SED W1	SED W2	TS 1C	SED W4	GE 4	TS 2B			GE 3	TS 1B
18	How school supports Foundation Phase reading																														
	1.School has specialist	a	3	3	3	1	3	3	3	2			3	3	4	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	1. Strongly agree
	2.Reading taken seriously	b	3	2	2	1	2	2	2	2			2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2. Agree
	3.Professional development done	c	3	3	2	3	3	3	2	3			3	3	3	3	3	1	3	1	1	1	3	1	1	2	1	1	1	1	3. Disagree
	4.Computers available	d	2	3	1	2	3	3	3	4			3	3	4	3	3	1	3	4	4	1	4	4	4	2	1	4	1	1	4. Strongly disagree
	5.Parents involved	e	3	3	4	3	3	3	3	3			3	3	3	3	2	3	2	1	4	1	4	4	1	2	1	4	1	1	
	6.Class size manageable	f	3	2	2	1	2	2	2	2			4	3	3	2	2	1	2	3	1	3	1	3	3	3	3	3	3	3	
	7.I get all the support	g	2	3	2	2	3	3	3	3			2	3	3	3	2	1	2	1	3	1	3	1	3	4	1	4	2	1	
19	Gender	m				1	1			1				1		1		1			2						1			1. Male	
		f	2	2	2	2		2	2				2	2		2		2		2	2		2	2	2	2	2	2	2	2	2. Female
20	Experience as teacher	10		11	3	5	10	12	12	5	10		8	12	15	13	6	4	3	1	15	6	12	2	8	10	11	5	10	10	Years
21	How long as reading teacher?	5		3	3	1	2	2	3	2	2		5	2	11	2	4	2	2	1	15	6	12	12	3	5	11	5	2		Years
22	How long in the school?	5		7	3	1	3	4	4	0	4		5	5	9	4	4	2	3	1	7	6	12	2	8	5	11	5	10	8	Years
23	How old?	3		4	3	3	3	3	3	3	2						2		1	1				1							1. Under 25 years
													3	3					2				3					2	4		2. 25 - 29 years
															4	4					4		3	3		3	3	3		3	3. 30 -39 years
																															4. 40 - 49 years
																															5. 50 years
24	Qualified teacher	1		1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1. Yes
																															2. No

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER-SURVEY RESPONSES																												COMMENTS	SUMMARY
		GW	ES	TS 2	JE	GW 1	JS	JW 3	GE 1	EN 3	GS	SN	JW 2	JW 1	JS 1	JN	EN	JW	SED, W3	TS 4D	GE 2	SED W1	SED W2	TS 1C	SED W4	GE 4	TS 2B	GE 3	TS 1B		
25	To what extent did you do the following in teacher training?																														
	1.English second language	a	1	1	1	1	1	1	1	1	1	3	1	1	1	1	2	1	2	2	2	2	2	2	2	3	2	2	2		
	2.Teaching reading	b	2	2	3	2	2	2	2	2	2	3	2	2	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	1	Specialised
	3.Special education	c	2	3	2	2	3	3	2	3	3	2	3	2	3	2	2	2	1	3	2	2	2	1	2	2	2	1	2	2	Did introduction
	4.Remedial education	d	2	3	2	2	3	3	7	3	3	2	3	3	3	2	2	2	1	3	2	1	2	1	2	3	2	1	2	3	Did not
	5. Psychology	e	2	2	2	1	2	2	0	2	2	2	1	3	2	2	2	2	1	2	2	2	2	2	2	3	2	1	3		
	6.Reading instruction	f	2	1	3	2	1	1	1	1	1	2	1	2	1	1	2	1	2	2	3	2	2	2	2	3	2	2	3		
	7.Intellectual disabilities	g	3	2	3	2	2	3	3	3	3	2	3	3	2	3	2	3	1	2	2	1	2	1	2	3	2	2	3		
	8.Theory of teaching	h	2	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1	1	2	2	1	2	1	2	2	2	2	2		

UNIVERSITY OF PRETORIA

FACULTY OF EDUCATION PSYCHOLOGY

STEWART KARENGWA 13336054

QUESTION	DATA CAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONSES																								COMMENTS	SUMMARY					
		EN	TS	GN1	JN	GN2	TS1	TN	GN3	TN1	TSP1	TW	EN1	ES1	GE1:5	SE	SW	GW2:4	JC1	JEF	JN2	JSP1	JW	TSP2	ES2			GW 2:2	JSP2	JE 2	JE 2	
	READING CLASS	11	15	8	12	16	21	12	12	16	12	17	9	16	14	13	6	12	10	8	17	14	12	8	18	10	11	8	11	1 Boys		
1	Number of learners taught	5	9	10	7	4	6	7	9	2	3	2	6	0	4	2	9	6	5	6	2	2	4	5	3	5	8	6	3	2 Girls		
2	Average age of learners	15	15	15	15	14	15	14	15	13	14	13	13	15	14	14	13	13	14	14	15	14	15	15	14	15	14	15	14	13 Years		
3	Learners reading at grade level	a	3	5	2	5	5	4	3	5	3	1	5	1	5	3	5	5	2	2	1	5	1	1	5	4	4	4	4	1 All		
		b	2	3	3	4	3	4	1	4	3	3	4	4	3	3	4	4	4	2	2	4	2	3	4	2	3	5	3	2 More than half		
		c	3	2	5	3	2	2	1	3	1	1	2	3	2	3	2	2	2	3	0	1	2	2	4	2	2	2	2	2	3 Half	
		d	3	2	5	3	3	2	2	1	3	2	2	3	2	3	3	2	2	3	2	2	3	4	3	4	2	3	4	3	4 Less than half	
		e																													5 None	
4	Reading Level of class	a			1														1							1				1 Most above average		
		b	2						2		2	2				2				2							2	2	2	2 Average		
		c		3		3	3						3	3	3			3		3		3		3	3			3		3 Below average		
		d						4		4							4						4							4 Levels vary greatly		
TEACHING READING																																
5	Organise class for reading	a		1		1	1	1			1	1	1			1		1				1								1 Teach as class		
		b													2					2		2								2 Ability groups		
		c				3	3	3		3	3	3		3	3	3	3	3		3		3		3	3	3		3		3 Mixed groups		
		d			4				4		2													4				4		4 Individuals		
6	Reading timetabling			1		1	1	1			1	1	1		1	1		1	1								1			5 In other subjects		
				2														2		2										6 Reading stand alone		
		3			2		3	3	3				3				3					3	3	3	3	3	2	1	2	7 Both ways		
Total Teaching load		28	26	26	30	30	2	0	0	26	26	26	28	30	30	22	21	28	27	30	28	26	30	28	24	30	28	26	30	Periods		
7	Teaching reading on its own	3	4	2	0	0	2	0	0	4	2	0	4	1	2	0	2	2	0	4	0	1	2	2	2	0	0	1	0	Periods		

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONDENTS																								COMMENTS	SUMMARY					
		EN	TS	GN1	JN	GN2	TS1	TN	GN3	TN1	TS11	TW	EN1	ES1	GE1:5	S5	SW	GW2:4	JC1	JEF	JN2	JSP1	JW	TS P2	ES 2			GW 2.2	JS P2	JE 2	JE 2	
9	How often do you do the following	a	2	6	2	2	2	1	6	1	2	6	6	3	2	6	2	2	3	3	1	2	2	1	2	1	6	6	2	1. Everyday		
	Teach phonics	b	3	2	3	2	2	1	2	1	1	2	2	1	2	1	2	2	1	2	2	2	1	2	1	1	1	2	2	2. Once a week		
	Teach decoding strategies	c	3	6	3	1	1	0	2	6	2	1	2	2	1	6	1	2	3	1	2	2	2	1	2	2	1	2	1	3. Once a month		
	Evaluate reading activities	d	6	3	6	1	1	2	2	6	2	2	2	1	4	1	2	1	4	4	3	1	4	3	2	4	1	3	4. Once a term			
	Assess reading levels	e	2	4	2	4	3	6	1	2	4	6	3	4	3	5	3	5	4	4	5	3	2	5	1	6	4	6	5. Once a year			
	Assess comprehension	f	2	2	2	2	1	1	2	2	1	2	1	1	1	2	2	1	2	2	1	1	2	2	1	1	2	2	1			
	Take learners to the library	g	3	3	3	3	6	0	6	2	3	6	3	4	3	6	3	5	6	4	3	6	4	6	4	4	3	6	4			
	Read aloud as class	h	2	3	2	1	1	1	2	2	2	1	3	2	1	3	3	1	1	2	3	1	3	2	2	2	1	2				
	Assess decoding strategies	i	1	3	1	2	2	2	2	2	1	2	1	1	1	1	2	2	2	1	2	2	2	1	2	1	1	1	2			
	Evaluate reading programme	j	3	3	3	4	4	2	2	5	2	3	4	3	4	5	3	3	4	5	5	6	1	6	2	5	5	4				
	Assess library activities	k	3	3	3	4	3	6	0	6	2	4	4	4	4	2	4	5	6	4	4	6	4	2	6	4	2	1	6			
	Assess spelling	l	2	5	2	2	2	2	1	6	2	2	2	1	2	2	1	2	2	3	2	4	1	2	4	2	2	2	3			
	Plan reading interventions	m	3	4	3	3	1	0	2	5	3	4	3	1	4	2	1	2	3	2	3	4	2	3	4	2	2	4	4			
	Report progress to parents	n	3	3	3	4	4	4	3	4	3	2	4	2	3	4	3	2	4	3	4	2	2	4	4	4	2	3	2			
	Learners use computers reading	o	6	2	6	6	6	6	0	3	2	3	6	2	3	6	2	5	0	2	6	3	6	0	0	4	3	2	6			
	Use textbooks for reading	p	1	6	1	6	6	2	1	3	2	1	2	1	6	3	2	6	5	6	2	2	1	1	6	0	3	2	6	1		
	Use internet reading	q	6	6	6	6	6	6	0	3	2	3	1	6	1	4	2	6	5	6	2	1	3	6	3	3	6	3	2			
	Read after teachers	r	1	6	1	1	1	2	1	2	3	3	2	1	3	2	2	3	1	1	3	1	3	1	1	2	1	1	2	1		
	Read aloud alone	s	2	2	1	1	2	1	2	2	2	2	1	2	2	2	1	1	2	1	1	2	2	1	1	2	2	2	1			
	Teacher model reading strategies	t	6	2	6	1	1	2	2	1	2	2	1	1	2	2	1	2	1	1	2	1	2	1	1	1	2	1	1			
	Teach new vocabulary	u	2	2	2	2	2	1	2	2	2	1	1	2	0	1	1	1	2	1	1	2	2	1	1	2	2	1	2			
	Reading to other learners	v	2	2	2	1	1	2	2	2	2	2	1	1	2	2	1	1	2	2	2	2	2	2	2	2	1	2	2			
	Time to reading anything	w	2	1	2	2	2	6	2	2	2	1	2	3	1	2	3	2	3	3	2	2	2	1	2	3	2	2	3			
	Use different materials different levels	x	2	2	2	1	1	3	1	1	2	1	2	2	2	1	2	1	1	1	1	1	2	2	1	1	2	2	1	0		
	Answer oral questions	y	3	2	3	2	2	1	2	1	2	1	2	3	2	1	1	1	1	3	2	3	2	1	2	1	2	2	2			
	Read and respond in writing	z	3	2	2	2	2	1	1	2	2	2	2	1	2	2	1	2	1	2	1	2	1	2	2	3	1	3	2	3		
TEACHER INTERVENTION PRACTICES																																
10	Extent you agree or disagree	a	5	5	5	5	1	1	0	4	2	5	3	5	2	4	5	4	3	3	4	5	5	4	5	5	4	2	2	3	1. Strongly agree	
	School follow intervention programme	b	4	3	2	1	2	2	0	1	2	1	2	1	3	1	1	2	1	2	1	3	3	3	1	1	1	1	3	1	2. Agree	
	I employ own intervention	d	2	5	4	2	3	4	0	3	1	1	3	2	3	1	1	3	4	3	3	1	2	4	4	4	3	2	3	3	3. Neither/nor	
	My interventions have time frame	e	2	5	4	3	4	2	0	3	2	1	3	5	3	3	1	5	3	1	5	3	1	5	3	3	4	5	3	4. Disagree		

My Interventions formal		READING TEACHER SURVEY RESPONSES																										5. Strongly disagree				
QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	EN	TS	GN1	JN	GN2	TS1	TN	GN3	TN1	TS11	TW	EN1	ES1	GE1,5	S6	SW	GW2,4	JC1	JEF	JN2	JSP1	JW	TS P2	ES 2	GW 2,2	JS P2	JE 2	JE 2	COMMENTS	SUMMARY	
	Intervention known programme	f	2	4	4	4	4	0	2	4	3	2	4	3	3	3	4	3	2	1	1	3	1	3	1	2	4	3	3			
	Interventions once off	g	3	4	4	4	3	0	2	3	3	2	3	2	3	1	3	3	2	1	2	1	3	3	2	2	3	2	1			
	Early identification at risk learners	h	3	4	4	4	3	4	0	3	4	3	3	3	3	3	3	3	4	3	3	4	3	4	3	4	4	4	3			
	Intervention for whole class	c	1	4	1	2	2	1	0	2	1	1	0	1	4	3	0	0	2	3	4	2	0	4	6	0	2	3	0	8		
11	List interventions employed																															
	Reading aloud	1			1	1		1				1		1		1		1	1		1			1				1				
	Modelled recording	2	2		2					2	2															2						
	Reading class	3																														
	Reading to teachers	4				4		4				4		4			4			4				4					4			
	Create more time	5				5					5						5			5			5									
	Computers	6		6							6					6			6													
	Thress chart	7			1																											
	Peer teaching	8					8					8				8						8		8		8		8				
	DICAPS	9			9																											
	TOC	10				10	10	9		9																						
	One-on-one	11				11		10	11		11					11		1	11						11			11				
	Providing feedback	12						12											12							12						
	Phonics	13	13		13						13		13	13					13		13								13			
12	Most effective interventions			0		0	0																									
	Reading aloud	1						1		1		1		1		1				1			1			1	1	1				
	Modelled reading	2						2		2		2		2		2					2		2			2	2					
	Reading to class	3									3															3	3					
	Reading to teachers	d																					4									
	Create time	e																									5					
	Closing computers	f	6					6	6	6			6	6	6		6		6				6		6				6			
	Thress chart	g																									7					
	Peer teaching	h											8		8					8	8						8		8			
	DICAPS	i						9			9																9					
	Feed back	j								10																	10					
	One-on-one	k			11				11			11						11	11			11		11			11					
	Phonics	l	12								13																12					
	Repeated	m			13																		13		13	13						

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONSES																								COMMENTS	SUMMARY	
		EN	TS	GN1	JN	GN2	TS1	TN	GN3	TN1	TSP1	TW	EN1	ES1	GE1	SE	SW	GW2.1	JCI	JEF	JN2	JSP1	JW	TS P2	ES 2			GW 2.2
16	When instruction intervention fails what do you do ?																											
	1.SBST	a	1		1	1	0		1	1		1							1		1					1		
	2.Change teaching method	b	2				2					2		2	2		2				2		2		2	2	2	2
	3.Read for learners	c						3				3		3	3					3		3			3		3	
	4.Individual attention	d					4			4		4											4					
	5.Re-design activity	e		5								5		5		5		5			5							
	6.ISP	f							6		6		1						6			6						
	7.Visual aids	g	7			7		7		7							7				7		7			7		
	8.SNA	h			8		8			8	8	8		8					8	8	8				8		8	
	9.Use games	i				9										9									9		9	
	10.Word search	j																										
	11.Rhyme search	k																										
16.1	How do you help learners to feel part of the class?						0	0																				
	1.Read on their own	a			1	1														1					1			
	2.Read short text	b																										
	3.Write simple sentences	c																										
	4.Read for them	d	4		4		4			4									4						4			
	5.Call them by their names	e				5								5					5									
	6.Practice the alphabet	f										6							6			6					6	
	7.Reading to teacher	g	7			7				7									7							7		
	8.Reading as class	h		8						8					8										8			
17	What else needs be done for FP reading?				0			0																				
	1.Library	a	1						1						1					1				1				
	2.Lot of visual aids	b	2			2		2		2			2		2		2		2		2		2			2	2	
	3.More reading material	c	3	3		3	3			3	3	3		3		3	3					3			3		3	
	4.Inform Parents	d	4											4							4					4		
	5.More time	e	5		5			5		5	5	5			5		5		5		5	5			5		5	
	6.Workshops for reading teachers	f								6		6							6									
	7.Rich print classrooms	g		7					7						7						7					7		

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER SURVEY RESPONSES																								COMMENTS	SUMMARY						
		EN	TS	GN1	JN	GN2	TS1	TN	GN3	TN1	TSP1	TW	EN1	ES1	GE;5	S5	SW	GW2;4	JC1	JEF	JN2	JSP1	JW	TS P2	ES 2			GW 2.2	JS P2	JE 2	JE 2		
18	How school supports Foundation Phase reading																																
	1.School has specialist	a	1	3	3	3	1	0	3	2	1	1	3	3	3	4	3	2	3	2	4	2	3	3	4	1	2	3	2	1	Strongly agree		
	2.Reading taken seriously	b	2	2	3	2	2	0	2	2	1	4	2	3	3	1	4	2	2	1	2	2	1	2	1	1	1	2	2	2	Agree		
	3.Prefessional development done	c	3	3	3	3	0	0	3	3	4	2	3	4	3	2	3	3	1	2	4	1	4	3	4	3	2	3	3	3	Disagree		
	4.Computers available	d	3	3	4	3	4	0	3	3	3	4	2	3	3	1	4	3	3	3	1	2	3	4	3	3	2	2	2	4	Strongly disagree		
	5.Parents involved	e	2	3	3	3	4	0	2	4	3	4	1	3	3	4	1	3	1	4	3	4	3	4	3	3	4	1	3				
	6.Class size manageable	f	2	2	3	2	1	0	2	2	1	2	2	1	1	1	2	1	2	1	2	1	2	1	2	1	1	2	2				
	7.I get all the support	g	2	2	2	3	2	0	2	0	3	4	3	1	3	4	3	3	2	4	3	2	4	3	2	2	2	2	3	3			
19	Gender		1	1		1												1			1						1	1	1	Male			
			2		2		2	2	2	2	2	2	2	2	2	2	2		2	2		2	2	2	2	2		2	2	2	Female		
20	Experience as teacher		4	7	#	10	12	8	2	8	6	15	4	18	15	16	3	10	16	7	9	11	16	#	13	6	8	10	13	8	Years		
21	How long as reading teacher?		4	3	16	4	2	4	1	1	2	6	1	9	5	5	2	7	8	1	3	2	8	10	3	3	3	6	2	1	Years		
22	How long in the school?		4	3	13		4	5	0	7	4	1	1	4	5	7	2	5	4	1	5	2	6	8	2	3	4	5	1	2	Years		
23	How old?							1			1					1																	
			2	2						2									2						2	2			2	2	25 - 29 years		
							3		3		3						3			3	3			3				3			3	30 - 39 years	
					4	4							4	4	4			4				4						4			4	40 - 49 years	
					5																		5								5	50 years	
24	Qualified teacher		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Yes	
																															2. No		

QUESTION	DATACAPTURE SURVEY QUESTIONNAIRE	READING TEACHER-SURVEY RESPONSES																								COMMENTS	SUMMARY				
		EN	TS	GN1	JN	GN2	TS1	TN	GN3	TN1	TSP1	TW	EN1	ES1	GE;5	S5	SW	GW2;4	JC1	JEF	JN2	JSP1	JW	TS P2	ES 2			GW 2.2	JS P2	JE 2	JE 2
25	To what extent did you do the following in teacher training?																														
	1.English second language	a	1	1		1	1	1	0	1	1	1	2	2	2	1	3	3	3	2	1	3	2	1	1	3		2	1	3	
	2.Teaching reading	b	1	2		2	2	1	1	1	1	1	2	2	1	2	2	2	2	1	1	2	1	1	2	2		2	1	2	1
	3.Special education	c	2	2		2	3	1	3	2	2	2	2	3	1	2	2	3	3	2	2	3	2	3	2	2		3	2	3	2
	4.Remedial education	d	2	2		2	3	1	0	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2		2	2	2	3
	5. Psychology	e	2	2		1	2	1	1	2	2	1	2	2	2	1	2	2	2	2	2	2	2	2	2	2		2	2	2	
	6.Reading instruction	f	1	3		2	1	1	2	1	1	3	2	1	1	2	1	1	1	1	1	1	1	1	1	1		1	1	1	
	7.Intellectual disabilities	g	3	3		1	2	1	2	3	2	3	2	3	2	2	2	3	3	3	3	2	2	2	2	2		3	3	2	
	8.Theory of teaching	h	1	2		1	1	1	2	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	

APPENDIX K: TRANSCRIBED DATA- TEACHER INTERVIEWS

1 EN8	Good morning, ma'am. My name is Stewart Karengwa and I am from the University of Pretoria. We are carrying out a survey on reading in FP. There are one or two things that we want to find out from you, but we thank you for allowing us to record and to allow us to carry out the interview.
2	May I go to the main interview? Here we start with demographic information. If you don't mind, ma'am, how long have you been working as a teacher?
3	It comes from 2006. From two years before. This year, this is the 18th year. And for how long have you been a reading teacher? Hmm.
4	It's over 10 years ago, so we started reading in 2012. And as a reading specialist, for how long have you been a specialist? Being a reading specialist is something that started here in this school in 2011.
5	Not COVID-2019. I think around the COVID time. And for how long have you been at this school?
6	This is the seventh year. Yeah, you have been here for quite a long time. And how many teachers are in the FP?

7	that you work with? I work with Rumi Nutsi Chasi.
8	Sir, do I mention them by grade, register or by work, like by workload? Yeah, well anything just a rough idea of how many... About nine.
9	And do you have any background in reading during teacher training? And especially related to reading? I do most by experience. But the training I have which puts me in a better position to do it is inclusive education, which I did.
10	And how many learners do you have in the Foundation? Roughly, an estimated number of learners? I would say about 150. Yes, about 150.
11	Now, let's go to the next session, which is on special needs teaching and experience. So, you said your only background with reading is what you did inclusive education. Is there any other background that you have in reading? Yes, sir. It's an experience I got from...
12	the literacy project that I have worked on since 2012. That was from 2012 to 2017 when I came here at school. I think that is when I saw that reading is the area of need. Because that institution was mainly...
13	about reading and basic mathematics, but it started as for reading specifically. So, it was more of a reading clinic. And was that organized by the department? It's...

14	NPO, Non-Profit Organization, and it's also not a government institution, but it works with government schools. Where the women who are struggling in medicine, in literacy, reading, are taken on...
15	some hours during the day, but they are taken from government schools. I think you said it's a remedial clinic. Yes. Now, do you have any other background that you have besides that one? For reading. Before then I hadn't done reading.
16	I was a science teacher. And how do you assign your teachers for foundation-phase reading? For foundation-phase reading, I think.
17	For here at the school, it's not me who's responsible for that, but the deputy principal for the curriculum is the one who assigns them. Then I work with the people she has assigned to me on a yearly basis. So those teachers, as I am doing the foundation,
18	the main foundation of the school. By the time they go to the next grade, I always know who's who and what their level of reading is. Then we take it from there. So, for other teachers, when they get them, I work closely with them in giving feedback and updates on, okay, you can start from here.
19	with the program that we are using. And then that is how we work. Now and then I check with them on how the learners are progressing. Should there be a need for some learners, I take them myself. What is your background?

20	intellectual development disorders.
21	My background knowledge on that is mainly based on the causes or the modules I have done when I was doing honors in inclusive education. That is why I saw a lot, I learned a lot, I gained a lot of knowledge on barriers.
22	to learning and reading is also mentioned a lot there because it can be the main barrier to learning when learners don't know how to read. Yeah, definitely. There is no learning if learners cannot read. Now we are going just into that section on reading instructional and educational practices. How do you identify learners
23	for reading? I think you mentioned it, I have to say. For identification, that goes with the screening, assessing, and then identification and support. Of which, in my case and with the other educators I work with, first, before I start with the learner, it's very important that I find out.
24	on which level is this learner. So, I have my own diagnostics, the way of diagnosing levels of reading learners, where I use basic, very basic text to check on which level the learner is reading at.
25	I always put it in terms of levels. I will rate it up to 5. From the scale of 1 up to 5. So, I do that, like with every new learner that I receive. I do that. Mainly the FP ones that I start with. Do you do it with every learner?

26	some learners whom you just have to interact with. I do it when the learner is new to my eyes or at school.
27	I think we also discovered quite a lot in that area. Now, to what extent does the school embrace technology in the learning of reading in the foundation? I feel like our school is doing a lot with regards to that, except for some contextual factors. For example...
28	provided or donated that new computer lab to us. There is a lot that we can do. The school just needs to put it into function because it has lots of programs that can assist learners in all areas of need. It's more like a special needs computer lab, that one. The programs, the software that are in there.
29	provided or donated that new computer lab to us. There is a lot that we can do. The school just needs to put it into function because it has lots of programs that can assist learners in all areas of need. It's more like a special needs computer lab, that one. The programs, the software that are in there.
30	Only us that need to put it to work. Now, you mentioned that the department has donated special programs for reading. Now, do you see that lab as for specialist teachers?
31	That lab is for specialist teachers, definitely. But I have learned that due to large numbers, enrolment, and classes, the space, for now it's used as a classroom. The program hasn't started. We've been waiting for...

32	The last time we were waiting for the official opening by the department to say now you can use it. But since I am one of the people who received training on how to use it, it will come handy. Okay. So, we are happy to hear that in the future you will make use of that new library when it's opened.
33	and that learners would actually benefit out of it. Now, how would you go about it?
34	Hey, that's so nice. I'm in support. I'm in support of the learners team this year. Of which now that term one is about to end, we are concluding term one. We will know exactly who needs support or who needs extra coaching.
35	in school and those learners. We agreed upon the team to take learners to different people but then when it comes to those who need that program, I will be the one.
36	because I was the one who was trained in the main reading, so I'll be taking the learners there. Oh, well, that's wonderful for the learners. Now let's move on to the next section, it's on evaluation of FP reading programs. How does the school decide on a reading curriculum for the FP?
37	How does it decide? How did it decide? Yeah, in fact, how it decides to say this is what you are going to adopt? First, it was decided based on the progress of the learners. Because before the reading was added to the school, before I was allocated reading.

38	there was a need. We had large number of learners failing. Like, for example, in year one you would get about 20 something learners failing the grade or having to repeat the grade. But since that reading program started, we have seen numbers going down in a way that in my phase or in my grade last year.
39	Only, it's less than ten learners who fail. In my grade, orientation two, none of the learners fail. So, we don't have repeaters. In orientation one, the foundation of the school, only one learner failed. And it's those learners that you can see that.
40	they really really struggled but most learners are performing well. Once they master reading, they progress, also improve. So that's how the school decided if we can do something about this reading problem at the school.
41	we may achieve something, and it eventually happens. Now who evaluates and supervises the reading and learning of reading in the Foundation? The immediate supervisor is me
42	the person who oversees it, or is the deputy principal responsible for curriculum, which is Miss Bego. And how many times a year do you assess reading at the school? It's, reading I would say is a term.
43	Even though there isn't anything formal that we are formally now assessing the reading, the reading of the learners is assessed termly to see how far they've gone. So, if you may come to me at the end of the term, I will tell you how So and so is doing.
44	Because even the teachers who have experienced some challenges with some learners, I have intervened because you know the learners sometimes, they would say, I don't know, I don't

	know how to read just to get the teacher off their back. Then I would intervene and tell no. So and so is at this level.
45	he should be able to read this and this and eventually you find that they are, when the teachers get that information, they are actually reading. And when you make these assessments, like we said, it's every term that you assess. Do you assess them according to benchmarks?
46	There isn't anything about reading, the way we assess it. It's normally a thing how much he has improved or has he improved by giving them...
47	the different levels of books. The books, the readers in my class are in levels. So, every time when I buy books, I buy them when they come in different levels where there is enough scaffolding to assist the learner progress.
48	First, the elements of writing that you assess, it has to be can the learner identify all. Can the learner see sounds? When the learner sees a word that they don't know, what is the first sound that they make? Is it the sound that is in that word or that is starting that word?
49	So that is the first area. And then for some learners, they have a different way of learning the reading. You will find that the learner is more of taking pictures of the words. So, you will find that he is looking at the whole word at once. And then the next level, it will be when the learner reads in phrases. That is...

50	quite impressive because you can see this one, the pace also improves with reading and phrases. So, when a learner can read just three words at once, three words at once, even if the learner stumble, like stumble between the words, but the progress starts
51	, when the learner can just say those words without sounding them out. So those are the levels and then the text concentration. And what is, what is in your view the state of reading material and equipment that you use in the FP? Can I come again? What in your view?
52	What do you say is the state of reading materials and reading equipment that you use in the FP? First, it's flashcards. Flashcards, we can't shy away from flashcards. You have to create flashcards. Oh yes. We use flashcards.
53	Audios. You know reading goes with listening. Yes, yes, yes. When they can listen to a text.
54	and then you put them into reading it. It won't be the same as taking them straight to the text. So, we have a motto that we use with them, that eyes and ears mix power. And when they say power, they touch the brain, because we want to show that the brain is less powered when you are looking but not listening.
55	and when you are listening but not looking, which we call parity, when the learner will hear others reading and see what they are saying but is not looking. Okay. Eyes, ears, together, power. Touch the brain and say power. Okay, power. I like that one. And...

56	What progress do you think learners in the FP are making in reading? Hey, that one is surprising. You know, there is some area of study open there. Because I have noticed with some learners, you know, with some learners, when you think of it, you haven't made any difference. Then you let it lie.
57	Then later, in a year or maybe months down the line, you discover that the learner can actually read. If I can make an example for you, sir, there is a learner in BCI, he is in year one. This learner was reading last year. I felt like I wasn't making much difference onto him. But...
58	to my so-called friend this year. He can read. Like I've been giving them different books in that grade. He can read. He takes a book and reads it. Like he doesn't even ask me or call me or raise a hand. He reads. And he will keep reading. Yeah, that's good. That's good. So, it is like that.
59	And the overall in school, what would you say is the progress most of the learners are making? The progress, the rate of progress is definitely above 50%. I would like to think I've reached over 60%. As. the specialist in the school? As the specialist in the school. With the learners that I have taught
60	then the progress they are making when they go on, I think it is definitely above 60. That means you are doing quite well. And lastly, please voice any questions, comments or concerns you may have regarding reading in special schools.
61	You know, I think reading in special schools, if it was according to me, everyone would be a reading specialist. Every teacher at a special school must be a reading specialist. Because I've seen it

	with some learners who make progress with me, but then when they get to other grades or with other teachers, it dies down.
62	all written specialists, all who were taking that rest. Like when learners pass from orientation to year one, year ones are also given the chance to do reading. But from year two, year three, year four, more of our learners are like on their own. Since they are special learners, you know some ones it's late.
63	to lie, it just dies. If they will always be refreshers. Especially, I've been inviting English teachers at the school, with the ones who are doing higher grades, to come on board and get to know the program that I am using. I have seen with the orientation teachers, they use it.
64	Thank you so much for the interview. It was a pleasure finding out from you how the school supports reading in the Foundation's Phase.
65	I will quickly summarize some of the information that has been recorded during the interview where lastly you mentioned to say it's your wish to see every teacher being a reading teacher and that teaching learners to read especially those in special schools is not an event, it's a process where from orientation or from FP when you pass them on to the intermediate phase.
67	need that support. And you also mentioned that... There has been senior phase at this special school. Oh yes. Then you also mentioned that you are doing quite well with your classes, where something like above 50% might also lead up above the grade level. And where you also mentioned

68	you teach phonological awareness, you teach word reading, then those are some of the areas that you assess. And that assessment is made three times a year. And there is also this interesting area, although we didn't discuss it, the feedback that you get from the parents.
69	for the good work that you are doing. But from this discussion, I hope the parents are also contributing and they are happy with their learners. So thank you so much for the interview, ma'am. And there is one thing in this program. Yes. Gestures. We use gestures. Because gestures help us remember.
70	Okay, so it's ears, eyes...
71	Power, actions. Ah, that's perfect. No actions, with most of the words. To help memorize them, we use our body. We don't learn by brain only. Our whole body learns. Ah, I'm glad that I've been learning from the specialist. I won't forget that one. Eyes, ears. Together, make power. Together, power. Touch power when you see.
72	That's your again.

APPENDIX L: EXAMPLE - DESCRIPTIVE RESULTS PRINCIPAL INTERVIEWS

1	EN P1 00:01 Good morning, sir. Thank you, sir. My name is Stewart Karenga. I'm from the University of Pretoria. I'm here to find out more about reading in the school, and I would need your input. If you allow us, we can record the discussion. No, I don't have a problem with the recording of the discussion. Thank you so much. Okay. Maybe we can go straight to the...	Code
2	00:31 the demographic information that you would want to use. How long have you been working as a teacher? Well, I started working as a teacher in 1990, and for now I think I'm having 32 years of work experience as a teacher. Nothing else but being a teacher.	
3	00:53 Yeah, that's a wide experience. Now, so to say for all these years, you have been a reading teacher for the subject. Yes, yes. I've been teaching learners almost everything, reading included, especially English, anything English. OK. And how many years as the principal?	
4	01:18 Well, I think I've been a principal for about two years. Okay. How many teachers do you have in the FP? I think we have got plus minus, let me go through them. Plus, minus, we've got six educators in the Foundation. Oh, that's good.	

5	01:47	And do you have a background in reading during teacher training? Yes, yes, yes, yes, yes, yes, for sure. Okay. All right. Now, the other question is about the number of learners in the FP.
6	02:05	Like you said, there are six teachers. Do you roughly have any estimate? It can be around... Let me just go to my records first. I think there are about 120 as we speak.
7	02:25	Now, our next section is on specialist teaching and experience. You had said you have some background knowledge on teaching reading, which you trained for reading. Now do you have reading specialist in this school?
8	02:42	Not as yet, but we do not have a reading specialist at school. What we have, we just have got competent educators in the English language. And also in other languages because from the inception of the 2023 academic year, we introduced the vernacular languages. So for now...
9	03:11	What I can say is that we've got specialist educators who are teaching reading in English and in Afrikaans in Sesotho and in Sepedi.

10	03:27	
	That's quite good. Now, how do you assign your teachers for FP reading? Well, firstly, I look at their qualifications and if they've got qualifications that deals with early child development or related subjects or in their education, they did primary teacher's course or primary education.	
11	03:57	
	which they have specialized in, we assign them those FP because we do not want people who are not knowledgeable about teaching learners who are still up and coming when it comes to languages. We would prefer those who are specialist educators, especially in early childhood development and learning.	
12	04:27	
	What is your background with special needs education? Well, I would say that I do not have a specific background in special education, but what happened was that it just so happened that they needed a person who can teach the English language, and then I happened to be the educator who was available, and then everything that I learned, I learned through seminars, courses,	
13	04:56	
	workshops within the special education environment and everything that I gained was, I wouldn't say that I learned special education at university level, but I learned it first hand when I came here and then I became conversant with all special education needs and processes.	
14	05:22	
	So what about intellectual developmental disorders? Well, intellectual developmental disorders. So intellectual development disorders in special schools? Yeah, I think we've got barriers. We've	

	got special education. Special education has to do with barriers to learning. And most of our learners here have...	
15	05:49 a variety of challenges or barriers to learning and we cater for all those barriers and they vary depending on the level of their comprehension of the language and what I can attest to is that not much emphasis is put on the higher order intellectual reasoning it is based on the basics of the language	
16	06:17 and trying to implement the language in doing their chores. I think you can also bear in mind that special education is not only confined to languages and all that, it also includes vocational subjects. So we want to make sure that the learners are not only competent in using the language, but they are also competent in using their hands in the vocational studies environment.	
17	06:44 And that also takes us to the next question, which was, how do you identify these learners for the FP? Well, basically we give them a test to check to ascertain their level of competence in the language and based on their assessments.	
18	07:12 then we determine whether they qualify to go to the FP or to go to the upper level phases. But the only criteria that we use is the test that we give them to ensure that the learners are correctly placed. But not only that, also the background	

19	07:39	information that the referring institutions bring to us. We also look at it and then on the basis of what they say and on the basis of what we see in terms of their performance during the assessments that we give them is then that we can recommend that they go to the FP so that they can be conversant with our systems here.	
20	08:09	How familiar are you with the state of reading in South African schools? We've got a challenge because apparently it is not as it was in the past because we've got a challenge of these new technologies. So, learners are not familiar or are not comfortable with books and it becomes a challenge to encourage them.	
21	08:35	to read books because most of the time they are reading their gadgets like cell phones and all these electronic, new electronic gadgets which occupies most of their time. But we try by all means here at school to encourage them to read books as we know them, not electronic books but actual physical books. We've got set works that we assign to them from the FP up to the highest grades which is year four.	
22	09:06	we have designed set works for them. The FP are reading a book called George Speaks which is of their level and then the other grades like year two or three they are doing a book called	
23	09:31	We've got a variety of books. Leslie Bick's book and then the fourth, which is the senior grades, they are doing The Silver Sword by Ian Serena. We have carefully selected a set work of books to cater for	

	a variety of learning abilities of learners. So even the FP, especially the FP, we give them	
24	10:00 books that are easy to understand, with easy story line, easy to follow, so that they can be familiar with our systems here at school. Okay, that's right. And do you have a particular intervention program that you follow at this school? Yes, we do. We do have intervention programs in the sense that those learners who are battling, who can...	
25	10:28 who cannot read at all. There are committees that we have designed, the committees that we have instituted in the school, where those learners are referred to those specialist educators to try to assist, especially those learners who are really battling with reading. So they go through their paces, they teach them, they start by very simple things like they start with the consonants and the vowels so that at least they can catch up before they leave.	
26	10:57 the corridors of our institution. Okay. To what extent does the school embrace technology when teaching these learners? Well, the school is trying by all means because we have introduced we have got new gadgets in the form of new technologically advanced chalkboards we have got	
27	11:26 What do you call this? We've got projectors. We've got computers centers. Basically, we've got two computer centers at school. What I can say is that we've got almost all the necessary amenities and necessary infrastructure to keep our learners reading.	

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	What do you call this? We've got projectors. We've got computers centres. Basically, we've got two computer centres at school. What I can say is that we've got almost all the necessary amenities and necessary infrastructure to keep our learners reading.	
29	11:50	
	with the competence that we think would aid them in their future endeavours. Oh yes. And in what way does the school support the needs of teachers in the FP? The school is organizing almost on a monthly basis, courses where they would go to	
30	12:17	
	a variety of institutions like Saibono, like all other institutions that are offering workshops and seminars. So most of our educators are teachers, teachers, teachers, teachers, teachers,	
31	12:33	
	given the opportunities to go there to equip their knowledge and to equip themselves with the necessary skills. However, when they come back they don't only give us feedback of the quality of information that they gained or they've garnered in their courses, but also to ensure that they implement the training that they need.	
32	12:56	
	whatever skills they get from those workshops or seminars in classes and then we, the school fund those seminars. It's not from their pockets but it's from the pocket of the institution. There are funds assigned to those projects and almost every year we try to make sure that our educators go to seminars, and we pay in advance and then it works well so far.	

33	13:26	
	And now, do you think, there anything else that needs to be done when it comes to reading in the FP? I think what needs to be done is that in the coming years we think of expanding our library. Our library is not that big. We want to have a huge building to ensure that we stock as much books as possible. And not only that, we also incorporate the reading.	
34	13:56	
	time in our timetable to show that learners during our periods can be given enough time to go to our library to go and read. So we need a library that will be able to have enough stock of books, enough space for learners to read during contact time. And that is what is in the pipeline. And in due course, I think that it will be finished and then we will definitely make sure that...	
35	14:24	
	Our library is not only big, but it teaches us for the needs of our learners. Thank you so much. Coming on to the evaluation of Foundation for the Reading programs, how do you decide on a reading curriculum for the Foundation for the Reading?	
36	14:47	
	Basically, we look at the needs of the learners. And not only that, we also, like I said, we look at the level at which they are operating. And based on that, then we select the material.	
37	15:11	
	We select the material that is relevant or appropriate to their level of comprehension. And who evaluates and supervises the teaching in the learning of reading in the FP? We have got a FP head of department.	

38	15:35	
	and then working together with other heads of departments to ensure that there is synergy between what is happening in the FP and also what is happening in the phases above FP. So in that regard, all the educators are working together to ensure that whatever is being done in the FP is carried throughout our system to ensure that when our learners	
39	16:05	
	leave the portals of our institution, their knowledge is not only whole, but it's also compacted and coordinated. Okay, sir. And how many times a year do you evaluate reading in the FP? I think what we did was we have actually organized what we call	
40	16:34	
	activities. So with these activities we ensure that almost every term learners are being given a chance to read and accept a passage that is being given to them. In that way, every term there is a reading task in all the classrooms from the FP.	
41	16:57	
	up until the year four. So, what is happening is that every term there is a reading passage that all the learners are subjected to and their reading is being assessed and we to ensure that progress in their reading capacity is decent and if there are backlogs is then that they are being referred to specialist reading educators who are assisting them.	
42	17:24	
	But by and large, what we make sure is that for every term, all four terms, there are formal assessment tasks on reading, which compels them to read. The next one was to say, how does the school use the	

	results after analysing the reading assessments? How does the school use all those results?	
43	17:54 I think you touched on that one. Yeah, I think it's actually incorporated in our assessments. We make sure that we do not only assess the writing, corrections and all that, we are also the reading and the spoken language. So what we want to ensure is that our learners are able to read and to read flawlessly. And not only that,	
44	18:22 They are also able to write and write correctly. So, reading, writing and speaking is incorporated in our assignments and in our formal assessment tasks. Every time we've got all those three elements in our assessments. Reading, writing and speaking.	
45	18:51 Okay, thank you so much sir. I think we are coming to the end of our interview. If I might summarize some of the points that were raised, you didn't start reading.	
46	19:08 now but you did it even at college when you were training. And that most of the experience you gained in the classroom and through the workshops. And that you are quite conversant of what is happening in the FP.	
47	19:27 and that you have some plans for the school, for the foundation first, even to expand the library. Then you also highlighted the support that you give to the teachers and how the learners are assessed and how	

	you use those results. I would like to thank you for the time you took for the interview.	
48	19:53 Is there anything else that you would like to bring to the attention?	
49	19:58 to our attention regarding reading in the FP. Yeah, I think what I want to add is that reading in the FP, especially in LSE school, is not a simple task as in a normal school environment because our learners are in low level intellectual function.	
50	20:24 So our reading exercises and our reading tasks must be adjusted to their level of competence. So that is the challenging part. But by and large I would say that though it is a challenging task, the educators that we have in our establishment are doing a wonderful job. So far when the learners start from the FP.	
51	20:53 and reach the year four, we have witnessed a marked improvement in their reading capabilities and that gives us hope and gives us faith in our systems and makes us believe that we are on the right track. So that is what I wanted to say. Thank you. Thank you so much once more for the information and for your time. Thank you so much. Sure. Thank you, sir.	

APPENDIX M: CODES AND THEMES FROM TEACHER INTERVIEWS

UNIVERSITY OF PRETORIA
FACULTY OF EDUCATION
13336054

TOPIC; Teaching Reading to Learners with Intellectual Developmental Disorders:
Practices in the FP

CODES AND THEMES

TEACHER - EN8

Demographics and Teaching Background

1. **Code:** Experience as a teacher
Theme: Length of teaching experience
Description: Participants' teaching experience and number of years teaching reading.
 2. **Code:** Years as a reading teacher
Theme: Specialized teaching roles
Description: Experience and role as a reading teacher or specialist.
-

Reading Instructional Practices

3. **Code:** Reading identification methods
Theme: Diagnostic and assessment practices
Description: Methods used to assess learners' reading levels, including screening, diagnosing, and supporting.
 4. **Code:** Collaboration with other teachers
Theme: Teacher collaboration and support
Description: Working closely with other teachers, providing feedback, and giving reading updates.
 5. **Code:** Reading levels
Theme: Progression in reading
Description: Classification of learners into reading levels (e.g., scale of 1-5) and progression tracking.
-

Reading Curriculum and Support

6. **Code:** Curriculum decision-making
Theme: Curriculum evaluation and development

Description: The process of deciding on a reading curriculum based on learner performance and school needs.

7. **Code:** Learner performance

Theme: Impact of reading programs

Description: Measuring success of reading programs through student performance (e.g., fewer learners failing).

Special Needs and Inclusive Education

8. **Code:** Inclusive education background

Theme: Experience in special education

Description: Background in inclusive education and its impact on reading instruction.

9. **Code:** Reading barriers

Theme: Challenges to reading development

Description: Barriers to learning such as intellectual development disorders or reading disabilities.

Use of Technology

10. **Code:** Technology in reading

Theme: Integration of technology in teaching

Description: Use of technology, such as special reading programs and computer labs, to enhance learning.

Evaluation and Assessment of Reading

11. **Code:** Frequency of assessment

Theme: Continuous evaluation practices

Description: Regular termly assessments of reading progress.

12. **Code:** Use of benchmarks

Theme: Standardized assessment criteria

Description: Evaluation of learners against benchmarks, though informal assessment is often used.

Instructional Materials

13. **Code:** Teaching resources

Theme: Availability and use of materials

Description: Use of flashcards, audio, and other resources to assist in reading instruction.

14. **Code:** Multi-sensory learning

Theme: Use of multi-sensory approaches

Description: Emphasis on integrating listening and visual stimuli in reading lessons (e.g., "eyes and ears mix power").

Learner Progress

15. **Code:** Reading fluency and improvement

Theme: Learner progression and outcomes

Description: Observable improvements in learners' reading abilities, such as moving from phonics to phrase reading.

UNIVERSITY OF PRETORIA

FACULTY OF EDUCATION

TOPIC: Teaching Reading to Learners with Intellectual Developmental Disorders: Practices in the Foundation Phase

TEACHER-PARTICIPANT EN 9

Codes:

1. Experience as a Teacher

- "It's four years now."
- "As a reading teacher, I can say four years."

2. Subject Specialization and Training

- "PGCE in 2018, specializing in accounting and EMS."

3. Motivation for Teaching Reading

- "Lack of our learners not knowing how to read."
- "More than half of the learners in my class cannot read."

4. Challenges in Teaching Reading

- "Half are doing okay, the other half they struggle."
- "We don't really have reading materials."
- "When you cannot read, you don't do well in all your subjects."

5. Interventions in Teaching Reading

- "We have a reading lab where it's one specific teacher."
- "Using a computer, the words pop up, and the computer says the word for them to hear."

6. Assessment Practices

- "Yes, we do assess reading every term."
- "There is little improvement, but there is some improvement."

7. Parental Involvement

- "Parents don't sit them down to help them with their homework."
- "If parents could just give themselves time, it would be easier."

8. Learner Engagement and Enjoyment

- "They don't enjoy it because they feel embarrassed."

- "Most of them are from mainstream schools, and they couldn't read back then."

9. Barriers in Reading

- "The only time they read is when they are at school."
- "Once they leave the class, reading is done."

Themes:

1. Teacher Experience and Background

- Teachers' years of experience and educational background influence their teaching approach and comfort with teaching reading.

2. Lack of Resources and Infrastructure

- The lack of reading materials and libraries in special schools presents significant challenges for teachers trying to improve literacy.

3. Motivation and Struggles in Teaching Literacy

- Teachers are motivated to teach reading due to the high number of struggling learners, but they face challenges in engaging and improving literacy among their students.

4. Use of Technology in Reading Interventions

- Schools with limited resources are using technological interventions like reading labs to assist students with literacy skills.

5. Assessment and Progress Monitoring

- Regular assessments are conducted, but the progress is slow and minimal due to the learners' intellectual disabilities and challenges.

6. Role of Parental Involvement

- The importance of parental involvement is highlighted as a missing element in supporting learners outside of school.

7. Learners' Emotional and Psychological Barriers to Reading

- Emotional issues, like embarrassment and lack of self-confidence, play a role in hindering learners' ability to engage with reading material.

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PSYCHOLOGY

13336054

**TOPIC: Teaching Reading to learners with Intellectual Developmental Disorders:
Practices in the Foundation Phase**

Teacher Participant- EN 10

Codes:

1. Experience as a Teacher

- "It's four years now."
- "As a reading teacher, I can say four years."

2. Subject Specialization and Training

- "PGCE in 2018, specializing in accounting and EMS."

3. Motivation for Teaching Reading

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- "More than half of the learners in my class cannot read."

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- "When you cannot read, you don't do well in all your subjects."

5. Interventions in Teaching Reading

- "We have a reading lab where it's one specific teacher."
- "Using a computer, the words pop up, and the computer says the word for them to hear."

6. Assessment Practices

- "Yes, we do assess reading every term."
- "There is little improvement, but there is some improvement."

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- "Parents don't sit them down to help them with their homework."

- "If parents could just give themselves time, it would be easier."

8. Learner Engagement and Enjoyment

- "They don't enjoy it because they feel embarrassed."
- "Most of them are from mainstream schools, and they couldn't read back then."

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- "The only time they read is when they are at school."
- "Once they leave the class, reading is done."

Themes:

1. Teacher Experience and Background

- Teachers' years of experience and educational background influence their teaching approach and comfort with teaching reading.

2. Lack of Resources and Infrastructure

- The lack of reading materials and libraries in special schools presents significant challenges for teachers trying to improve literacy.

3. Motivation and Struggles in Teaching Literacy

- Teachers are motivated to teach reading due to the high number of struggling learners, but they face challenges in engaging and improving literacy among their students.

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- Regular assessments are conducted, but the progress is slow and minimal due to the learners' intellectual disabilities and challenges.

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- The importance of parental involvement is highlighted as a missing element in supporting learners outside of school.

7. Learners' Emotional and Psychological Barriers to Reading

- Emotional issues, like embarrassment and lack of self-confidence, play a role in hindering learners' ability to engage with reading material.

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PSYCHOLOGY

13336054

TEACHER PARTICIPANT-G19

Codes:

1. Teacher's Experience:

- Started working as a reading teacher in April.
- Specialized in English and Life Sciences.
- 1 year and 8 months at current school.

2. Teacher's Motivation:

- Passion and drive to see learners improve their reading and writing skills.
- Goals: Learners able to read on their own by the end of the year.

3. Reading Materials and Tools:

- Uses textbooks, worksheets, and online materials.
- Incorporates technology (computers, pens that highlight words and read aloud).
- Worksheets and oral activities for reading aloud.

4. Reading Techniques:

- Focus on phonics (pronunciation of alphabets and words).
- Grouping learners based on cognitive levels.
- Focus on word-by-word reading for learners struggling with pronunciation.

5. Challenges:

- Learners with short-term memory or limited concentration span.
- Need for brief, engaging, and educational breaks to keep learners focused.

6. Support from School and Parents:

- Receives support from the HOD and other educators.
- Positive feedback from parents (improvement in learners' speaking and writing skills).

7. Classroom Management:

- Organizes learners based on their reading capabilities.
- Uses code-switching (from English to learners' home languages like isiZulu) to aid understanding.

8. Learners' Progress:

- Progress observed in gradual improvements.
- Out of 12 learners, 8 are reading at grade level.

Themes:

1. Teacher's Role in Enhancing Reading Skills:

- The teacher's role is critical in diagnosing reading challenges and providing tailored support.
- Passion and a sense of responsibility drive their engagement in teaching reading.

2. Use of Technology and Resources:

- Integrating modern technological tools such as reading apps, online materials, and auditory pens enhances the reading experience and learning process.

3. Challenges in Teaching Reading:

- Attention span and short-term memory issues in learners present challenges, but structured breaks and engaging activities help maintain focus.

4. Learner Grouping Based on Ability:

- Grouping learners according to their cognitive and reading abilities is essential for providing appropriate reading support and instruction.

5. Parent and School Support:

- Positive reinforcement from parents and consistent support from the school environment create a supportive ecosystem for learners' reading development.

6. Reading Strategies:

- Phonics and oral activities are key strategies for improving reading skills. The emphasis on pronunciation and phonics is highly effective for learners struggling with reading.

7. Gradual Progress and Outcomes:

- Reading progress is gradual, with notable improvements in learners' reading abilities over time, reflecting the effectiveness of consistent practice and monitoring.

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FACULTY OF EDUCATION

PSYCHOLOGY

13336054

TOPIC: Teaching Reading to Learners with Intellectual Developmental Disorders: Practices in the Foundation Phase

MAIN 10 COMMON CODES AND THEMES

Common Codes

1. Duration of Teaching Experience
2. Specialization in Reading Instruction
3. Impact of Reading Programs on Learners
4. Curriculum Design and Adaptation
5. Teaching Strategies Used
6. Collaboration Among Educators
7. Evaluation Methods for Teaching
8. Motivational Techniques for Students
9. Challenges in Mastering Foundational Skills of Reading
10. Influence of Family and Environment on Learning to Read

Common Themes

1. Professional Development and Expertise
 - Highlights the significance of educators' experience and specialization in reading.
2. Effectiveness of Reading Instruction
 - Explores the perceived benefits and outcomes of reading programs on student learning.
3. Curriculum Flexibility and Relevance
 - Discusses the importance of adapting the reading curriculum to meet diverse learner needs.
4. Collaborative Teaching Practices

- Emphasizes teamwork and shared responsibility among teachers for student success.
5. Student Motivation and Engagement
 - Focuses on strategies to encourage a love for reading and active participation in learning.
 6. Assessment and Feedback Mechanisms
 - Investigates how educators evaluate reading progress and adapt their teaching accordingly.
 7. Social and Emotional Factors in Learning to Read
 - Examines the impact of students' backgrounds and home environments on their reading abilities.
 8. Diverse Learning Materials and Resources
 - Highlights the use of varied texts and resources to enhance reading instruction.
 9. Challenges in Literacy Development
 - Identifies common obstacles students face in developing reading skills.
 10. Role of Family in Education
 - Explores how parental involvement and family dynamics influence children's reading habits.

REASONS FOR CHOOSING THESE AS COMMON CODES AND THEMES

Common Codes

1. Duration of Teaching Experience
 - Many participants mention their teaching backgrounds and the length of time they've been in the profession, indicating its importance in shaping their perspectives on reading instruction.
2. Specialization in Reading Instruction
 - The role of reading specialists is frequently highlighted, suggesting that expertise in this area significantly impacts teaching effectiveness.
3. Impact of Reading Programs on Learners
 - Multiple participants reflect on the benefits or limitations of reading programs, emphasizing their direct influence on student learning outcomes.
4. Curriculum Design and Adaptation

- Teachers discuss how they adapt the curriculum to meet the needs of their learners, highlighting the importance of flexibility in educational approaches.

5. Teaching Strategies Used

- Various instructional methods are mentioned, showing that effective reading instruction relies on diverse and engaging strategies.

6. Collaboration Among Educators

- The theme of teamwork appears consistently, indicating that collaboration is essential for improving reading instruction and sharing best practices.

7. Evaluation Methods for Teaching

- Participants describe how they assess reading progress, demonstrating a commitment to ongoing evaluation and improvement in teaching methods.

8. Motivational Techniques for Students

- Many educators discuss ways to motivate students, indicating that fostering a love for reading is crucial to engagement and success.

9. Challenges in Reading Comprehension

- Common references to difficulties students face suggest that comprehension issues are a significant concern in reading education.

10. Influence of Family and Environment on Learning

- Participants frequently mention the impact of students' home lives, indicating that external factors play a critical role in reading development.

Common Themes

1. Professional Development and Expertise

- The consistent emphasis on experience and specialization reflects the idea that ongoing professional growth enhances teaching effectiveness.

2. Effectiveness of Reading Instruction

- Shared insights on the benefits of reading programs indicate a collective concern for improving literacy outcomes among students.

3. Curriculum Flexibility and Relevance

- Frequent discussions about adapting curriculum underscore the necessity of meeting diverse student needs in a dynamic learning environment.

4. Collaborative Teaching Practices

- The recurring theme of teamwork among educators illustrates the value of shared knowledge and support in fostering a conducive learning atmosphere.

5. Student Motivation and Engagement

- Many participants prioritize motivating students, highlighting the critical role of engagement in achieving literacy goals.

6. Assessment and Feedback Mechanisms

- The common focus on evaluation methods indicates a commitment to refining teaching practices based on student performance.

7. Social and Emotional Factors in Learning

- Frequent references to students' backgrounds reveal a deep awareness of how social and emotional contexts influence learning.

8. Diverse Learning Materials and Resources

- The variety of texts and resources discussed reflects an understanding that diverse materials enrich the reading experience and cater to different learning styles.

9. Challenges in Literacy Development

- Common mentions of obstacles students face reveal a shared recognition of the complexities involved in literacy education.

10. Role of Family in Education

- The importance of family involvement consistently emerges, emphasizing its critical impact on students' attitudes toward reading and learning.

APPENDIX N: CODES AND THEMES FOR PRINCIPALS INTERVIEW

UNIVERSITY OF PRETORIA

FACULTY OF EDUCATION

13336054

TOPIC: Teaching Reading to Learners with Intellectual Developmental Disorders: Practices in the FP

PRINCIPAL- EN

Codes and Themes from principal -participant interview

Based on the interview transcript, the following codes and themes emerged for analysis:

Codes and Themes

**Theme 1: Teacher Experience and Qualifications**

- ****Code: Years of Experience**** (e.g., "I started working as a teacher in 1990, 32 years of work experience")
- ****Code: Principal Experience**** (e.g., "I've been a principal for about two years")
- ****Code: Teacher Training**** (e.g., "I have a background in reading during teacher training")
- ****Code: FP Teacher Assignment**** (e.g., "Look at their qualifications in early child development")

**Theme 2: School Resources and Infrastructure**

- ****Code: Number of Teachers and Learners****(e.g., "We have six educators in FP," "120 learners")
- ****Code: Technology in Classrooms**** (e.g., "Projectors, two computer centers, technologically advanced chalkboards")
- ****Code: Library Expansion Plans**** (e.g., "We want to have a huge library to stock as many books as **possible**"

**Theme 3: Reading Instruction and Programs**

- ****Code: Reading Specialists**** (e.g., "We do not have a reading specialist at school")
- ****Code: Language Diversity in Reading**** (e.g., "Specialist educators in English, Afrikaans, Sesotho, Sepedi")
- ****Code: Intervention Programs**** (e.g., "Specialist educators assist learners who are struggling with reading")

**Theme 4: Special Education Needs**

- ****Code: Special Education Background**** (e.g., "I learned special education through workshops and seminars")
- ****Code: Barriers to Learning**** (e.g., "Our learners have a variety of challenges or barriers to learning")
- ****Code: Vocational Learning**** (e.g., "Not only languages, but vocational subjects to develop competency")

**Theme 5: Reading Assessment and Evaluation**

- ****Code: Reading Curriculum Selection**** (e.g., "We select the material based on learners' comprehension level")
- ****Code: Formal Reading Assessments**** (e.g., "Every term, learners are given reading tasks in all classrooms")
- ****Code: Assessment Results Usage**** (e.g., "Results are used to assess progress and refer struggling students to specialist educators")

**Theme 6: Professional Development for Teachers**

- ****Code: Training and Workshops**** (e.g., "Monthly workshops and seminars at institutions like Saibono")
- ****Code: Implementation of Skills from Workshops**** (e.g., "Teachers implement the skills they learn from workshops")

**Theme 7: Challenges with Reading Culture**

- ****Code: Impact of Technology**** (e.g., "Learners are more comfortable with gadgets than books")
- ****Code: Encouraging Physical Book Reading**** (e.g., "We encourage learners to read actual physical books, not just electronic ones")

**UNIVERSITY OF PRETORIA
FACULTY OF EDUCATION**

13336054

TOPIC: Teaching Reading to Learners with Intellectual Developmental Disorders: Practices in the FP

PRINCIPAL- EN

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Codes and Themes

**Theme 1: Teacher Experience and Qualifications**

- ****Code: Years of Experience**** (e.g., "I started working as a teacher in 1990, 32 years of work experience")
- ****Code: Principal Experience**** (e.g., "I've been a principal for about two years")
- ****Code: Teacher Training**** (e.g., "I have a background in reading during teacher training")
- ****Code: Foundation Phase Teacher Assignment**** (e.g., "Look at their qualifications in early child development")

**Theme 2: School Resources and Infrastructure**

- ****Code: Number of Teachers and Learners****(e.g., "We have six educators in Foundation Phase," "120 learners")
- ****Code: Technology in Classrooms**** (e.g., "Projectors, two computer centers, technologically advanced chalkboards")
- ****Code: Library Expansion Plans**** (e.g., "We want to have a huge library to stock as many books as possible")

**Theme 3: Reading Instruction and Programs**

- ****Code: Reading Specialists**** (e.g., "We do not have a reading specialist at school")

- **Code: Language Diversity in Reading** (e.g., "Specialist educators in English, Afrikaans, Sesotho, Sepedi")
- **Code: Intervention Programs** (e.g., "Specialist educators assist learners who are struggling with reading")

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UNIVERSITY OF PRETORIA

FACULTY OF EDUCATION

PSYCHOLOGY

13336054

TOPIC: Teaching Reading to Learners with Intellectual Developmental Disorders: Practices in the FP

PRINCIPAL - ES P1

Based on the interview transcript, here are potential ****codes**** and ****themes****:

**Codes:**

1. **Experience and Roles**

- Teaching experience (20 years)
- Acting as principal
- Management roles (School Management Team)

2. **Teaching Structure**

- Foundation and intermediate phase overlap
- LSEN school structure (Orientation 1, Orientation 2)

3. **Special Needs Education**

- Mild intellectual disabilities
- Learners 2-3 years behind peers
- Psychological report and support forms

4. **Reading Intervention**

- Reading center and departmental head
- Use of external courses (SACE, Department of Education)

- One-on-one support

5. ****Challenges****

- Learners struggling with reading
- Mainstream education not addressing needs
- Lack of specialized teacher training in reading
- Slow learner progress

6. ****Technology and Resources****

- Support centre with reading program
- Integration with computer literacy
- Limited familiarity with specific programs

7. ****Teacher Support****

- Training by departmental head
- Courses and CAMY program for teacher development
- Emphasis on reading intervention

8. ****Assessment and Evaluation****

- Continuous assessment each term
- Rubrics for oral reading assessment
- Baseline assessment for new learners

9. ****Intervention Post-Assessment****

- One-on-one intervention based on assessment
- Continuous practice for learners
- Results analysis and curriculum meetings to address challenges

10. ****Collaboration****

- Curriculum meetings

- Departmental and results analysis meetings for improvement

****THEMES:****

1. ****Teacher Experience and Roles****

- Discusses the impact of teachers' professional experience and their roles in managing and supporting students, especially in special education contexts.

2. ****Special Education Structure****

- Focuses on how the school handles the unique needs of students in LSEN schools, with an emphasis on tailored education, psychological reports, and special support systems.

3. ****Reading Intervention Practices****

- Examines the variety of strategies and programs used to address reading difficulties, including one-on-one support and specialized teacher training.

4. ****Challenges in Special Education Reading****

- Identifies the obstacles faced in reading development, such as the learners' slow progress, inadequate teacher training, and the gap between mainstream and special education.

5. ****Use of Technology in Reading Instruction****

- Explores the role of technology and support centers in enhancing reading programs for special needs learners, despite limited familiarity with tools and programs.

6. ****Teacher Support and Professional Development****

- Highlights the importance of teacher training, courses, and ongoing development provided by the school and external programs to improve reading instruction.

7. ****Assessment and Continuous Improvement****

- Emphasizes the importance of regular assessment, rubrics, and evaluation meetings to track student progress and intervene where necessary.

8. ****Collaborative Approaches for Improvement****

- Focuses on the school's approach to addressing challenges through collaborative meetings and result analysis to drive interventions and improve teaching strategies.

UNIVERSITY OF PRETORIA

FACULTY OF EDUCATION

PSYCHOLOGY

13336054

TOPIC: Teaching Reading to Learners with Intellectual Developmental Disorders: Practices in the Foundation Phase

PRINCIPAL-GE P1

Codes and Themes for the Principal Interview (GE P1)

Code 1: Teacher's Experience

- **Quote:** "16 years... every year for 16 years... reading is part of learning."

- **Theme:** Teaching Experience and Tenure

- The participant has extensive experience, with 16 years of teaching, which provides a solid background in educational practices and reading interventions.

Code 2: Lack of Formal Training

- **Quote:** "I never had official training. But I learned through videos on YouTube."

- **Theme:** Self-directed Learning and Professional Development

- The teacher's reliance on self-initiated learning, such as watching YouTube videos, highlights gaps in formal training and professional development for educators.

Code 3: Special Needs Challenges

- **Quote:** "Learners forget a lot... have to repeat things... they fear reading."

- **Theme:** Challenges of Teaching Learners with Special Needs

- Teaching learners with intellectual disabilities presents challenges like poor memory retention and fear of reading, requiring patience and repetitive teaching methods.

Code 4: Barriers to Reading

- **Quote:** "Time... curriculum coverage... learners not interested... they fear reading."

- ****Theme:** **Barriers to Effective Reading Instruction****

- Key barriers to teaching reading include limited time, curriculum constraints, lack of learner interest, and the fear associated with reading among special needs learners.

****Code 5: Use of Technology****

- ****Quote:**** "We have two computer centers... using computerized reading material is appealing for the learners."

- ****Theme:** **Integration of Technology in Reading Instruction****

- The school's use of technology, including computerized reading material, plays a positive role in supporting reading instruction, particularly for engaging students.

****Code 6: School's Role in Supporting Teachers****

- ****Quote:**** "Support is an ongoing process... school tries by all means to support them."

- ****Theme:** **Institutional Support for Teachers****

- The school provides ongoing support for reading instruction, though the teacher acknowledges that this support can always improve.

****Code 7: Parental Involvement in Reading****

- ****Quote:**** "We need a campaign that encourages parents at home to encourage reading."

- ****Theme:** **Need for Parental and Community Engagement****

- The teacher emphasizes the importance of involving parents and stakeholders in reading efforts to reinforce learning at home.

****Code 8: Reading Assessment Practices****

- ****Quote:**** "Assessment is done on a termly basis... but before you start a term there is an assessment."

- ****Theme:** **Assessment of Reading Progress****

- The school conducts regular reading assessments, but the teacher highlights that assessments often focus more on writing than reading, which might undermine efforts to track reading proficiency.

****Code 9: Learners' Attitude Towards Reading****

- ****Quote:**** "They don't like reading, they feel it humiliates them."

- ****Theme:** **Learners' Negative Attitudes and Fears Toward Reading****

- The fear of reading and the feeling of humiliation are significant factors affecting learner engagement in reading activities.

****Code 10: Resource Availability****

- ****Quote:**** "We don't have as many [books] as we would like, but they are there."

- ****Theme:** **Resource Constraints in Reading Programs****

- While the school has some books and digital resources, there is a clear need for more physical reading materials to support comprehensive learning.

APPENDIX O: GDE RESEARCH APPROVAL LETTER



GAUTENG PROVINCE

Department: Education
REPUBLIC OF SOUTH AFRICA

8/4/4/1/2

GDE RESEARCH APPROVAL LETTER

Date:	08 February 2024
Validity of Research Approval:	08 February 2024– 30 September 2024 2024/588
Name of Researcher:	Karengwa S
Address of Researcher:	17 Newick road Gresswold Senior Hostel
Telephone Number:	074 703 3878
Email address:	stewartkarengwa@yahoo.com
Research Topic:	Teaching reading to learners with intellectual developmental disorders: Practices in the Foundation phase
Name of University:	UP
Type of qualification	PhD
Number and type of schools:	74 LSEN Schools
District/s/HO	15 Districts

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1

Making education a societal priority

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