

**BASIC READING SKILLS: A CASE STUDY OF AN ADULT
WITH TREACHER COLLINS SYNDROME**

LILLY S.KULANTHAI

**DISSERTATION SUBMITTED IN FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ENGLISH AS A SECOND LANGUAGE**

**FACULTY OF LANGUAGES AND LINGUISTICS
UNIVERSITY OF MALAYA
KUALA LUMPUR**

2012

UNIVERSITI MALAYA

ORIGINAL LITERARY WORK DECLARATION

Name of Candidate: **LILLY A/P S.KULANTHAI** (I.C No: 680403-10-6566)

Registration/Matric No: **TGB 080063**

Name of Degree: **MASTER OF ENGLISH AS A SECOND LANGUAGE**

Title of Project Paper/Research Report/Dissertation/Thesis (“this Work”):

**BASIC READING SKILLS: A CASE STUDY OF AN ADULT WITH
TREACHER COLLINS SYNDROME**

Field of Study: **APPLIED LINGUISTICS**

I do solemnly and sincerely declare that:

- (1) I am the sole author/writer of this Work;
- (2) This Work is original;
- (3) Any use of any work in which copyright exists was done by way of fair dealing and for permitted purposes and any excerpt or extract from, or reference to or reproduction of any copyright work has been disclosed expressly and sufficiently and the title of the Work and its authorship have been acknowledged in this Work;
- (4) I do not have any actual knowledge nor do I ought reasonably to know that the making of this work constitutes an infringement of any copyright work;
- (5) I hereby assign all and every rights in the copyright to this Work to the University of Malaya (“UM”), who henceforth shall be owner of the copyright in this Work and that any reproduction or use in any form or by any means whatsoever is prohibited without the written consent of UM having been first had and obtained;
- (6) I am fully aware that if in the course of making this Work I have infringed any copyright whether intentionally or otherwise, I may be subject to legal action or any other action as may be determined by UM.

Candidate’s Signature

Date

Subscribed and solemnly declared before,

Witness’s Signature

Date

Name: Dr. Rodney C. Jubilado

Designation: Research Supervisor

ABSTRACT

Everyone regardless of age and gender should be given an opportunity to learn, especially to read. Literacy improves lives of people in tremendous ways. However, for individuals with cognitive and memory impairment, learning to read has been a great challenge. In response to this challenge, this single subject case study examined the reading ability of an adult with cognitive and memory impairments, using a combination of five reading strategies. These strategies are: improving word recognition, building fluency, improving reading comprehension, using special remedial methods and using computers to teach reading. The five reading strategies were adapted from the teaching strategies recommended by Janet Lerner (2003), in her book 'Learning Disabilities: Theories, Diagnosis, and Teaching Strategies' (p.427-450).

The research participant of this study is a 21 year old young woman, Jasmine, who was diagnosed with Treacher Collins Syndrome (TCS), since birth. TCS has caused the participant to have marked cognitive delay, memory impairments, hearing impairment, and speech and articulation difficulties. In her 11 years of schooling in special education classes, she has been learning mainly non-academic subjects and never learnt how to read. Two normal adult learners, aged 35 and 43, of early literacy went through the same learning and testing process as the research participant. They were the control group. Their results were used to compare with the performance, weaknesses and strengths of the research participant's results.

The researcher carried out the intervention for five months for Jasmine at her home. As for the control group, they were taught for a month at the researcher's home. The data collected during the intervention include the Dynamic Indicator of Basic Early Literacy Skills (DIBELS) assessments' results, spelling test results, anecdotal notes of the participant's strengths and struggles in the learning process, and explanation of the participant's progress from a variety of tasks or exercises that she did during lessons,

which were kept in a portfolio. Findings revealed that the intervention which utilized a combination of five reading strategies was effective in increasing the reading skills of a person with cognitive and memory impairment.

ABSTRAK

Setiap insan tidak mengira usia atau jantina haruslah diberi peluang untuk belajar, terutamanya untuk membaca. Kebolehan membaca dan menulis dapat memperbaiki kehidupan seseorang. Walaubagaimanapun, untuk insan-insan yang kurang upaya dari segi kognitif dan kelemahan memori, proses pembelajaran merupakan cabaran yang hebat. Berdasarkan cabaran golongan sebegini, kes kajian subjek tunggal ini mengkaji keupayaan seorang dewasa yang mengalami masalah kognitif dan kelemahan dari segi memori, untuk belajar membaca, dengan menggunakan kombinasi lima strategi. Strategi-strategi ini ialah: memperbaiki pengenalan perkataan, memperbaiki kefasihan, memperbaiki pemahaman membaca, menggunakan kaedah pemulihan serta menggunakan computer untuk mengajar cara membaca. Lima strategi membaca ini dipetik dan diubahsuai daripada strategi pembelajaran yang dicadangkan oleh Janet Lerner (2003), dalam hasil karyanya 'Learning Disabilities: Theories, Diagnosis, and Teaching Strategies' (muka surat 427-450).

Subjek tunggal yang dikaji dalam penyelidikan ini ialah seorang wanita muda berusia 21 tahun, Jasmine, yang mengalami Sindrom Treacher Collins (TCS), sejak lahir lagi. Sindrom ini telah menyebabkan subjek tersebut mengalami kelemahan kognitif, kelemahan dari segi memori, kerosakan pendengaran serta kesusahan dalam pertuturan. Di alam persekolahannya selama 11 tahun di kelas khas, subjek ini hanya mempelajari subjek-subjek bukan akademik dan tidak pernah belajar membaca. Dua orang dewasa biasa, berumur 35 dan 43 tahun, yang tiada pengalaman belajar Bahasa Inggeris, telah menjalani proses pembelajaran dan penilaian yang sama seperti subjek tunggal dalam penyelidikan ini. Mereka merupakan kumpulan kawalan. Proses pembelajaran dan pencapaian mereka dibandingkan dengan prestasi, kelemahan dan kekuatan subjek tunggal.

Penyelidik telah menjalankan kelas intervensi selama 5 bulan, di rumah Jasmine. Kumpulan kawalan pula menjalankan kelas intervensi selama sebulan di kediaman penyelidik. Data yang diperolehi semasa kelas intervensi dijalankan termasuklah keputusan ujian DIBELS (Dynamic Indicator of Basic Early Literacy Skills), keputusan ujian ejaan. Nota penerangan tentang keupayaan dan kelemahan dalam proses pembelajaran, serta penjelasan tentang kemajuan subjek daripada pelbagai kaedah atau latihan yang dijalankan semasa proses pengajaran dan pembelajaran. Data ini disimpan dalam sebuah portfolio. Dapatan menjelaskan bahawa kelas intervensi yang menggunakan kombinasi lima strategi membaca ini adalah efektif dan dapat memperbaiki kemahiran membaca seorang yang lemah dari segi kognitif dan memori.

ACKNOWLEDGEMENTS

This study would never have been started without God's wonderful blessings. I am grateful to Dr Rodney Jubilado from the University of Malaya. His guidance and encouragement gave me the courage to continue going on during times that I felt that I might never be able to finish this endeavour.

I thank my research participant, Jasmine's parents for their cooperation and support. I am especially thankful to Jasmine, the participant in this research study, with whom I worked, and for what she taught me. My gratitude also goes to the two participants in the control group. I thank them for their willing contribution and eagerness to learn regardless of their busy schedule.

Most of all, I thank my family for making it possible for me to enjoy a career in education and ongoing academic study, as well as the joy of family life. I would like to acknowledge the loving support, unfailing faith and consistent encouragement of my husband, David Amaldass. I also give a special tribute to my children Jeremy, Nadine and Shereen for their significant contributions in this endeavour. Without the love, encouragement, and support of these loved ones, this dissertation would not have reached completion.

Last but not least, I thank all my family members, relations, friends and colleagues who always encouraged me and prayed for me. I appreciate all of you and God bless you.

TABLE OF CONTENTS	Page
Title Page	i
Original Literary Work Declaration	ii
Abstract	iii
Acknowledgements	vii
Table of Contents	viii
List of Figures	xii
List of Tables	xiii
List of Appendices	xiv
Chapter 1: Introduction	
1.1 Introduction	1
1.2 Problem Statement	2
1.3 Research Design	3
1.4 Bio-data of the Research Participant	6
1.5 Biological Factors	7
1.6 Research Methods	9
1.7 Data Collection and Analysis	10
1.8 The Purpose of the Study	11
1.9 Research Questions	11
1.10 Assumptions	11
1.11 Limitations	12
1.12 Scope	13
1.13 Significance of the Study	13
1.14 Definition of Terms	13
1.15 Chapter Summary and Overview of the Study	15

Chapter 2: Literature Review

2.1	Introduction	17
2.2	Literature Concerning Learning Difficulties of Persons with Cognitive Impairment or Mental Retardation	17
2.3	Intervention and Effective Reading Strategies Necessary to Teach Persons with Cognitive Disabilities	21
2.4	The Five Reading Strategies Used In the Present Study	24
2.4.1	Improving Word Recognition	24
2.4.1(a)	Phonological Awareness	24
2.4.1(b)	Phonics Method	25
2.4.2	Building Fluency	27
2.4.3	Improving Reading Comprehension	30
2.4.4	Using Special Remedial Methods	31
2.4.5	Using Computers to Teach Reading	33
2.5	Past Researches and Case Studies that Have Been Conducted to Teach Older Learners / Non-Readers to Read	33
2.6	Summary of Literature Review	41

Chapter 3: Research Methodology

3.1	Introduction	43
3.2	Research Design	43
3.3	Settings and Sample Selection	45
3.4	Materials and Equipment	47
3.4.1(a)	Teaching Aids and Lesson Plan	47
3.4.1(b)	Teaching Materials	48
3.4.2	Assessment Materials	53
3.4.2(a)	The Dynamic Indicators Of Basic Early Literacy Skills (DIBELS)	53

3.4.2(b) Portfolio Assessment	58
3.4.2(c) Spelling	58
3.4.3 Equipment	59
3.5 Procedure	59
3.6 Role of the Researcher	64
3.7 Dependent and Independent Variables	64
3.8 Data Collection and Data Analysis Procedures	65
3.9 Validity, Reliability and Usability	66
3.10 Ethical Considerations and Protection of Participant	67
3.11 Summary	68

Chapter 4: Findings and Analysis of Data

4.1 Introduction	70
4.2 Findings	71
4.2.1 Qualitative Results: Anecdotal Records and Records of Literacy Portfolio	71
4.2.1.1 Phonological Awareness and Letter-sound Correspondence	71
4.2.1.2 Vocabulary	73
4.2.1.3 Comprehension	76
4.2.1.4 Fluency	79
4.2.1.5 Literacy Portfolio	82
4.2.2 Assessment Results	84
4.2.2.1 Spelling Tests	84
4.2.2.2 DIBELS Assessments	86
4.2.2.2 (a) Initial Sound Fluency	88
4.2.2.2(b) Nonsense Word Fluency (NWF) modified to Regular Word Fluency (RWF)	91

4.2.2.2(c) Oral Reading Fluency (ORF)	96
4.2.2.3 Comprehension	99
4.3 Difficulties Faced and the Compensatory Strategies Used by Jasmine	101
4.4 Conclusion	106
Chapter 5: Summary and Conclusion	
5.1 Summary	108
5.2 Limitations	112
5.3 Future Research	113
5.4 Implications for Practitioners	113
5.5 Conclusion	114
References	115

LIST OF FIGURES	Page
Figure 4.1: Spelling Test Scores	85
Figure 4.2: Comparison of Initial Sound Fluency (ISF) Test and Retest Results	90
Figure 4.3: Comparison of Correct Letter Sounds Test and Retest Results	93
Figure 4.4: Comparison of Total Words Recoded Completely and Correctly (WRC) Test and Retest Results	95
Figure 4.5: Comparison of Oral Reading Fluency (ORF) Test and Retest Results	97
Figure 4.6: Comparison of Oral Reading Fluency (ORF) Test and Retest Results	100

LIST OF TABLES		Page
Table 4.1:	Phonological Awareness and Letter-sound Correspondence	71
Table 4.2:	Vocabulary	73
Table 4.3:	Basic Sight Words Accumulated by Jasmine	75
Table 4.4:	Comprehension	76
Table 4.5:	Fluency	79
Table 4.6:	Spelling Test Scores	84
Table 4.7:	Initial Sound Fluency (ISF) Test and Retest Results	89
Table 4.8	Correct Letter Sounds (CLS) Test and Retest Scores	92
Table 4.9	Words Recoded Completely and Correctly (WRC) Test and Retest Results	94
Table 4.10	Oral Reading Fluency (ORF) Test and Retest Results	96
Table 4.11	DIBELS Grade Level Benchmark, Mean Scores and Indications	98
Table 4.12	Comprehension Assessment Results	99
Table 4.13	Examples of comprehension passages	103
Table 4.14	Examples of comprehension questions	105

LIST OF APPENDICES	Page
Appendix A: Parents' Consent Form	123
Appendix B: Doctor's Reference Letter	124
Appendix C: Plastic Surgeon's Report	125
Appendix D: IQ-Test.eu Certificate	126
Appendix E: Initial Assessment Letter Name Record Sheet	127
Appendix F: List of Spelling Test Words	128
Appendix G: DIBELS Benchmark and target scores	129
Appendix H: Sample DIBELS Initial Sound Fluency (ISF) Assessment	130
Appendix I: Sample Regular Word Fluency (RWF) Probe	131
Appendix J: Sample Lesson Plan	132
Appendix K: Sample Worksheet Word Search-Intermediate Book 1	133
Appendix L: Sample Worksheet Zac the Rat and Other Stories	134
Appendix M: Sample Worksheet Beginning Phonics Grades 1-2	135
Appendix N: Sample Reading Passage Progressive Phonics Book 2	136