



Faculty of Education
Ain Shams University
Department of Curriculum and Instruction

The Effect of a Differentiated Instruction-Based Program on Developing Oral Reading Fluency and Reading Comprehension of Preparatory School Students

A Thesis Submitted for the Partial Requirements of
Master's Degree in Education Curriculum and EFL Instruction

By

Kamal Nabil Yousef Abdu

Researcher Assistant at the National Centre for Educational
Research and Development

Supervised by

Dr. Zeinab Ali El-Naggar

Professor Emerita of Curriculum and EFL
Instruction
Faculty of Education,
Ain Shams University

Dr. Badr Abdel Fattah Abdel Kafi

Lecturer of Curriculum and EFL Instruction
Faculty of Education,
Ain Shams University

2019

Acknowledgements

All thanks go to Allah. I am really grateful to all people who have helped me with the preparation of this thesis. I owe a particular debt to my lovely mother Professor Zeinab El-Naggar who has patiently read all the material, and whose detailed comments, suggestions, and encouragement have substantially improved the work. I am equally indebted to Dr Badr Abdel-Fattah who also read the whole work and whose comprehensive advice has provided valuable support for the thesis.

My thanks go to the administration of El Naam Preparatory school in Ain Shams, especially Ms Eman; the school principal and Mr Khalaf; the English teacher who has supported and helped the researcher in the implementation of the program. Mr Khalaf was interested in each session to read the preparation with me and gave some valuable advice on how to run the session. He also devoted time to be inside the classroom with the researcher. He shared his knowledge and experience sincerely with me.

I must also acknowledge my debt to all my colleagues and professors at the National Centre for Educational Research and Development especially Professor Gehan Kamal, our mother who always supports and encourages us to proceed forward.

I owe special thanks and gratitude to my father who has put me on the first road, who always supports and encourages me to achieve goals. I am also grateful to my mother who never stops praying for me and whose prayers have inspired me to succeed. Special thanks go to my dear wife who endured and supported me and shared the responsibility with me. My thanks are also due to the two apples of my eye; Eyad and Ali whose existence powerfully inspires and encourages me to live and work and be a role model to them.

Title: The Effect of a Differentiated Instruction-Based Program on Developing Oral Reading Fluency and Reading Comprehension of Preparatory School Students

Author: Kamal Nabil Yousef Abdu

Supervision: Prof. Dr.Zeinab Ali El-Naggar – Dr Badr Abdel Fattah Abdel Kafi

Institution: Faculty of Education, Ain Shams University, Cairo, Egypt

Year: 2019

Abstract

This study was conducted to examine the effect of a differentiated instruction (DI) based program on developing oral reading fluency (ORF) and reading comprehension skills of preparatory Egyptian school students. The study adopted the quasi-experimental research design with two groups; experimental and control. The experimental group was exposed to the DI program and the control group was taught using regular instruction. The sample consisted of (68) second year preparatory school students from two schools in Cairo governorate. Pre-Posttest was administered before and after the implementation of the proposed program. The results of the post-test revealed that there were statistically significant differences between the mean scores of the two groups in favour of the experimental group. The present study provides evidence for the effect of differentiated instruction in developing oral reading fluency and comprehension skills.

Keywords: *differentiated instruction, oral reading fluency, reading comprehension, EFL, prep school students*

Table of Contents

Acknowledgements.....	i
Abstract.....	ii
Table of contents.....	iii
List of tables.....	v
List of figures.....	vii
Abbreviations.....	viii
Chapter One: Background and Problem	
1.1. Introduction.....	1
1.2. Context of the problem.....	6
1.3. Pilot study.....	7
1.4. Statement of the problem.....	8
1.5. Hypotheses of the study.....	8
1.6. Significance of the study.....	9
1.7. Delimitations of the study.....	9
1.8. Definitions of terms.....	10
1.9. Organization of remainder and thesis.....	11
Chapter Two: Theoretical Background and related studies	
Section One: Differentiated Instruction.....	12
2.1. Theoretical underpinnings of DI.....	14
2.2. Rationale behind differentiated instruction.....	17
2.3. Principles of Differentiated Instruction.....	19
2.4. Students' characteristics.....	21
2.5. Curriculum Aspects to differentiate.....	23
2.6. Differentiated instructional strategies.....	25
2.7. Assessment in DI.....	27
Section Two: Oral reading fluency and Reading comprehension	30
2.8 Reading.....	31
2.9 The goal of reading.....	32
2.10 Reading instruction.....	32
2.11 Essentials of reading instruction.....	32
2.12 Oral reading fluency.....	34
2.13 The significance of reading fluency.....	35
2.14 Problems with fluency.....	35
2.15 Skills of oral reading fluency.....	36
2.16 Theory behind fluency.....	37
2.17 Measuring oral reading fluency.....	38
2.18 Oral reading fluency strategies.....	39

2.19	Reading comprehension.....	44
2.20	Oral reading fluency and reading comprehension.....	46
2.21	Reading skills and DI.....	47
2.22	Conclusion.....	51
Chapter Three: Method		
3.1.	Research design.....	52
3.2.	Participants.....	52
3.3.	Instruments of the study.....	54
3.4.	The proposed DI program.....	68
Chapter Four: Results and Discussion		
4.1.	Hypothesis one.....	83
4.2.	Hypothesis two.....	86
4.3.	Hypothesis three.....	87
4.4.	Hypothesis four.....	89
4.5.	Limitations of the study.....	91
4.5.	Discussion of Results	92
Chapter Five: Summary, Conclusion and Recommendations		
5.1.	Summary.....	101
5.2.	Hypotheses of the study.....	102
5.3.	Participants.....	102
5.4.	Significance of the study.....	103
5.5.	Instruments of the study.....	103
5.6.	Conclusion.....	103
5.7.	Recommendations.....	105
5.8.	Suggestions.....	106
References		108
Appendices		
Appendix (A)	Oral reading fluency skills checklist.....	124
Appendix (B)	Reading comprehension skills checklist.....	130
Appendix (C)	ORFCT (examiner copy – examinee copy)	136
Appendix (D)	The DI program (teacher’s booklet – students’ sheets).....	161
Appendix (E)	Photos, students’ sheets, pre-posttest sheets.....	224
Appendix (F)	Security approvals.....	263
Arabic Summary		

List of Tables

Table (1)	results of pre-test between experimental and control groups on overall oral reading and reading comprehension.....	53
Table (2)	description of test reading passages.....	56
Table (3)	readability of test passages.....	57
Table (4)	test specification with regard to each passage reading comprehension skill.....	57
Table (5)	time allotted for the test.....	59
Table (6)	scale for the reading rate.....	61
Table (7)	means, std. deviation and quartiles of each passage calculated by WCPM.....	61
Table (8)	means, std. deviation and quartiles of each passage calculated by the mean time.....	62
Table (9)	descriptive statistics of the students' reading rates.....	62
Table (10)	Pearson correlation for reading rate.....	63
Table (11)	accuracy scale of reading passage.....	64
Table (12)	means, std. deviation and quartiles of each passage calculated by errors per minute.....	64
Table (13)	Pearson correlation for reading accuracy.....	65
Table (14)	Pearson correlation for reading prosody.....	66
Table (15)	Pearson correlation for intonation.....	66
Table (16)	Pearson correlation for phrasing.....	67
Table (17)	Pearson correlation for reading comprehension questions of the passages.....	68
Table (18)	Program reading passages and their discourse type.....	70

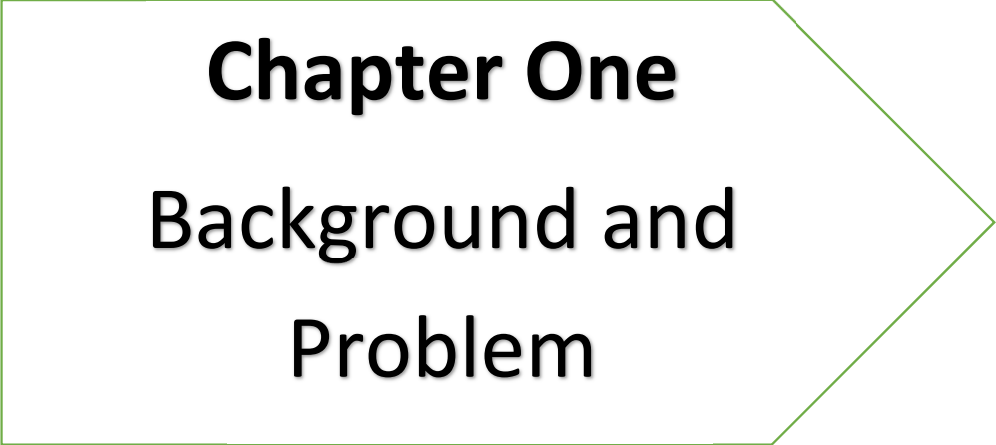
Table (19)	T-test comparison of the post-test scores of the control and experimental groups oral reading.....	84
Table (20)	T-test comparison of the post-test scores of the control and experimental groups oral reading accuracy and rate.....	85
Table (21)	T-test comparison of the post-test scores of the control and experimental groups oral reading prosody.....	85
Table (22)	T-test comparison of the post-test scores of the control and experimental groups reading comprehension.....	86
Table (23)	T-test comparison of the post-test scores of the control and experimental groups literal and inferential reading comprehension.....	86
Table (24)	T-test comparison of the pre-post tests scores of the experimental group oral reading.....	88
Table (25)	T-test comparison of the pre-post tests scores of the experimental group oral reading accuracy and rate.....	89
Table (26)	T-test comparison of the pre-post tests scores of the experimental group oral reading prosody.....	89
Table (27)	T-test comparison of the pre-posttests scores of the experimental group reading comprehension.....	90
Table (28)	T-test comparison of the pre-post tests scores of the experimental group literal and inferential reading comprehension.....	91

List of Figures

Fig. (1)	Elements of Differentiated Instruction.....	13
Fig. (2)	Main and sub-skills of Oral reading fluency skills.....	34
Fig. (3)	The pretest score for experimental and control group.....	53
Fig. (4)	Statistics of each passage (WCPM).....	62
Fig. (5)	Statistics of reading rate.....	63
Fig. (6)	Statistics of each passage (EPM).....	65
Fig. (7)	Mean score of oral reading posttest between experimental and control	84
Fig. (8)	Mean score of reading comprehension posttest between experimental and control.....	87
Fig. (9)	Mean score of the experimental in oral reading pre-posttests	88
Fig. (10)	Mean score of the experimental in reading comprehension pre-posttests.....	90

Abbreviations

<i>DI</i>	Differentiated instruction
<i>ORF</i>	Oral reading fluency
<i>ORFCT</i>	Oral reading fluency and comprehension test
<i>WRCPM</i>	Words read correctly per minute
<i>EPM</i>	Errors per minute



Chapter One

Background and Problem

Chapter One

Background and Problem

1.1. Introduction

Learning more than one language has been proven to increase brain development and dynamics especially in the early stages of foreign language (L2) Learning including adults. Individuals who are bilingual switch between two different language systems. Thus, their brains are very active and flexible. Bilinguals also have better cognitive development. They are also able to make new friends and create strong relationships using their second language. Bilinguals have somewhat better skills than monolinguals in understanding others' perspectives, thoughts, desires, and intentions (Byers-Heinlein and Lew-Williams, 2013). A vastly spreading and globally spoken language in all over the universe is English. Scientific research, international journals and magazines, communication, trading, business, politics, etc. are all done in English.

English could be improved by learning different skills including reading, listening, speaking, and writing. Although listening and reading are receptive skills, there is a main difference between them. In listening, the words disappear into the air the moment they are spoken. The written word, on the other side, exists as a stable record. Readers can consider the words and revisit them as often as they want until they are satisfied that they have reconstructed the meanings originally intended by the author.

Reading is an independent activity that students can do in their own time and outside of the classroom which fosters independent learning. There are several reasons that give some privilege to reading. Reading is essential to achieve academic success in universities. It is also a useful source of information and can speed up foreign language learning and improve other skills, such as writing, vocabulary, and spelling. Moreover, academic success, personal independence, and secure

employment depend on the fundamental skill of reading. Welfare of society is connected to improvement of reading skills. Thus, reading is the foundation for learning and academic achievement (Hussein, 2007; Calhoon, 2005; Marzano, 2003 and Paris, 2005).

Students need to be fluent readers in order to understand the written texts. Being fluent readers enable students to use their voices with expression to help convey meaning to listeners when reading orally. Fluency refers to the ability to read text aloud with sufficient speed, accuracy, and expression.

Fluency in reading is based on the theory of automaticity. This theory involves two steps in reading: decoding and comprehension. Decoding is turning the written word into its spoken and known equivalent. Comprehension is the construction of meaning (Nation, 2008). When a reader uses too much of his/ her cognitive resources to decoding, not enough cognitive resources will be available to understand and make sense of what is read (Rasinski and Hoffman, 2003). Roberts (2011) asserted this idea that too much time and energy spent decoding text leaves little time and energy for constructing meaning.

Positively speaking, Rasinski (2012) added with practice the lower level processes can be automatised which means a reader no longer needs to apply conscious attention to decoding and thus become a fluent reader. With automaticity in fluent reading, Rasinski (2012) added the prosody. Fluent readers use their voices with expression to help convey meaning to listeners when reading orally. He added that prosody is not only used in oral reading, but also reading silently involves using prosodic expression in mind that helps comprehend the words on the page.

Reviewing literature on reading instruction in Egypt reveals that there are some problematic areas. Many studies assured the need to implement better teaching strategies to improve reading skills. For example, Shadi (2015) affirmed that secondary students lack the following reading skills: identifying the main idea, getting meaning of new words from context, determining tone and purpose of the author. Abdel-Kawy (2012) added that students who learn English encounter some obstacles;

they may read slowly, they use word for word reading strategy to understand a text, and they don't possess decoding skills for unfamiliar words. Kabesh (2010) asserted that teaching reading in Egyptian classrooms is very teacher-centered. The teachers may read aloud and students passively listen. The teachers ask individuals to read selected paragraphs and others listen. She also highlighted that students lack mastery of necessary reading comprehension skills.

Hegazy (2012) related the poor reading performance to the reason that oral reading is less practiced and often neglected in classroom. She also highlighted that the main purpose of most studies in Egypt that dealt with reading skill was to develop students' reading comprehension skills ignoring how students read. This could be due to reasons such as lack of appropriate reading climate, insufficient time devoted to reading, lack of exposure to fluent models, lack of seeing real life connection, low competence of teachers in terms of oral reading skills, no specific techniques or activities adopted by most teachers. In addition to frustration caused by teachers as they do not give students enough and equal opportunities to read aloud topics they choose.

A few Egyptian studies have addressed the problems in teaching and learning oral reading fluency skills for both teachers and students. Those Egyptian studies assured the need for using better learning teaching oral reading fluency strategies to promote students' oral reading fluency skills. Hegazy (2012) also highlighted that research call for more experimental research to bridge the gap between theory and practice in the field of oral reading fluency.

Cohen (2011), Han and Chen, (2010) highlighted that although there is a growing interest in the importance of reading fluency for L2 students, the topic has received little attention from researchers and there is an absence of reading fluency training in most L2 classrooms. L2 students are using most of their effort decoding instead of making sense of what they are reading.

As Hegazy (2012) highlighted the need for equal and enough opportunities to read aloud topics learners choose in

order to increase motivation and interest in reading. She also called for more new strategies and techniques to develop oral reading fluency and comprehension that address learners' needs and interests. Because of the differences among learners and that pupils of one class differ in learning rates, readiness, attitudes toward learning (Kadum-Bosnjak, 2010), learners need to be taught in various ways and the strategies and techniques provided for learners need to be graded, leveled, or differentiated to meet students' different interests, abilities, readiness, and preferred ways of learning.

Due to the increasing diversity and heterogeneity of students in the one classroom, Mulryan-Kyne (2007) asserted that this heterogeneity requires preparation by teachers for teaching mixed-ability classrooms. Bender (2012) asserted that the diverse learning characteristics of today's classrooms make it necessary to implement a wide variety of activities in the classrooms. Tomlinson (2003) proposed a teaching philosophy that has not been deeply researched to achieve multi-grade teaching and addresses diversity. This philosophy is called differentiated instruction (DI), or pedagogically known as ***Differentiation***. Tomlinson (2000) added that differentiated instruction provides an essential basis for teachers to bring about success opportunities for all students.

Scardino (2011) stated that there are two theories that support the need for DI; the zone of proximal development and moderate challenge. He explained:

A child's zone of proximal development refers to a level of appropriate difficulty in tasks within which the child cannot succeed on their own, but can be successful, avoid frustration, and grow in understanding due to scaffolding and teacher support. Similarly, the term moderate challenge says that students should not work on tasks or with concepts where they are bored due to succeeding too easily. (p.3)

Tomlinson and Dockterman (2002) explained that instruction can be differentiated based on four student traits: *readiness*, a student's knowledge, understanding, and skill; *interest*, topics

that evoke a student's curiosity; *learning profile*, how a student learns best; and *affect*, the way students feel about themselves. As teachers consider these traits when planning, they must also consider the four classroom elements they can modify: *content*, what teachers teach; *process*, how students comprehend information; *product*, assessments of what a student knows; and *learning environment*, the tone of the classroom.

Studies suggested differentiated reading instruction as a remedial intervention for struggling readers. DI provides intensive intervention to meet the needs of struggling readers and help them prepare for high school, college, and the workplace (Carnegie Council on Advancing Adolescent Literacy, 2010). McCullough (2011) studied the effectiveness of differentiation in promoting the vocabulary and reading comprehension of struggling students in second grade. The study demonstrated that implementing differentiated instruction was beneficial in promoting the students' achievements in vocabulary and in reading comprehension.

Bender and Waller (2011), Sousa and Tomlinson (2011) mentioned that DI is one strategy that many educators have embraced as a more effective alternative when teaching a highly diversified student body in today's classrooms – and one that might help remediate the reading problems experienced by struggling readers. Addressing the needs of struggling readers is a growing concern. Bradfield's study (2012) on struggling first grade readers ability to meet reading fluency standards suggested that students who received DI achieved higher score on reading fluency than students who received whole-group instruction.

Nasr's study (2014) aimed at identifying the effectiveness of DI on developing reading and writing skills in second primary classes in Arabic in Palestine. She found that significant differences between the mean scores of the experimental group who were taught by DI strategies in comparison with the control group. She recommended using this strategy to improve reading and writing skills in other school subjects and with middle-school and secondary stages.