T.C. YEDİTEPE UNIVERSITY

INSTITUTE OF EDUCATIONAL SCIENCES

DEGREE OF DOCTOR OF PHILOSOPHY IN ENGLISH LANGUAGE EDUCATION

BRIDGING THE GAP: COMPARING THE RELATIVE EFFECTS OF SUSTAINED SILENT READING (SSR), ASSISTED REPEATED READING (ARR), AND TRADITIONAL READING (TR) ON EFL LEARNERS' READING COMPREHENSION AND SILENT READING RATE, VOCABULARY KNOWLEDGE, MOTIVATION FOR READING, AND ATTITUDES TOWARD READING

MERVE SAVAŞÇI

2019

Bridging the Gap: Comparing the Relative Effects of Sustained Silent Reading (SSR), Assisted Repeated Reading (ARR), and Traditional Reading (TR) on EFL Learners' Reading Comprehension and Silent Reading Rate, Vocabulary Knowledge, Motivation for Reading, and Attitudes toward Reading

by

Merve Savaşçı

Dissertation submitted to the Institute of Educational Sciences

in partial fulfilment of the requirements for the degree of

Doctor of Philosophy

in

English Language Education

Yeditepe University

2019

YEDİTEPE UNIVERSITY
INSTITUTE OF EDUCATIONAL SCIENCES DIRECTORATE

DISSERTATION SUBMISSION AND APPROVAL FORM

SUBJECT: Bridging the Gap: Comparing the Relative Effects of Sustained Silent Reading (SSR), Assisted Repeated Reading (ARR), and Traditional Reading (TR) on EFL Learners' Reading Comprehension and Silent Reading Rate, Vocabulary Knowledge, Motivation for Reading, and Attitudes toward Reading

APPROVAL:

Prof. Dr. Ayşe S. AKYEL
(Advisor) (Signature)

Assoc. Prof. Dr. Hossein FARHADY
(Member) (Signature)

Assoc. Prof. Dr. Adem SORUÇ
(Member) (Signature)

Prof. Dr. Yasemin BAYYURT
(Member) (Signature)

Assist. Prof. Dr. Evrim EVEYİK-AYDIN
(Member) (Signature)

SUBMITTED BY : Merve SAVAŞÇI
DATE OF THESIS DEFENSE : 13/ 05/ 2019
DATE OF THESIS APPROVAL : 13/ 05/ 2019

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.”

Merve Savaşçı

CURRICULUM VITAE

MERVE SAVAŞÇI

EDUCATION

- Doctor of Philosophy (Ph.D.), 2019: Yeditepe University, English Language Education (Full scholarship student), Institute of Educational Sciences.
- Master of Arts (M.A.), 2012: Yeditepe University, English Language Education (Full scholarship student), Institute of Educational Sciences, 2012.
- Bachelor's degree (B.A.) (Double major), 2012: Yeditepe University, Translation and Interpreting Studies (Full scholarship student), Faculty of Arts and Sciences.
- Bachelor's degree (B.A.), 2011: Yeditepe University, Department of English Language Teaching (Full scholarship student), Faculty of Education.

PROFESSIONAL EXPERIENCE

- Research Assistant & Instructor (March 2015- Present) at the Faculty of Education, Department of Foreign Languages Education, Sakarya University, Sakarya, Turkey.
- Instructor (September 2013- March 2015) at the School of Foreign Languages, Özyeğin University, Istanbul, Turkey.
- Research Assistant (February 2012-August 2013) at the Faculty of Education, Department of English Language Teaching, Yeditepe University, Istanbul, Turkey.

PUBLISHED ARTICLES

- Savasci, M., & Kaygisiz, S. (2019). One hand washes the other and both wash the face: Individuality versus collaboration in L2 writing. *Eurasian Journal of Applied Linguistics, 5*(1), 131-151.

CONFERENCE PROCEEDINGS

- Savasci, M., & Akyel, A. (2018). Possible effects of Sustained Silent Reading in an EFL context: Learner perceptions. *Extensive Reading World Congress Proceedings, 4*, 114-126.
- Savaşçı, M. (2014). Why are some students reluctant to use L2 in EFL speaking classes? An action research at tertiary level. *Procedia-Social and Behavioral Sciences, 116*, 2682-2686.
- Genç, E., & Savaşçı, M. (2013). Türkçe-İngilizce iki dilli çocukların zihinsel sözlüklerinde baskın dilin ve iki dilliliğin kelime organizasyonuna etkisi. In Büyükkantarcıoğlu, S. N., Özyıldırım, I., Yarar, E., Yağlı, E. (Eds.), *27. Ulusal Dilbilim Kurultayı Bildirileri* (pp. 116-125). Ankara: Hacettepe University Publications.

CONFERENCE PRESENTATIONS

- 17-18 October 2017. The 4th International Conference on New Trends in Education-CLIL: Crafting Bilingual Minds, Bahçeşehir University, İstanbul, Turkey. Paper presented: *An Exploration of the Relationship between Learner Autonomy and Learning Style Preferences.* (Bayrak, S., & Savasci, M.)
- 17-18 October 2017. The 4th International Conference on New Trends in Education-CLIL: Crafting Bilingual Minds, Bahçeşehir University, İstanbul, Turkey. Paper presented: *Students' Perceptions towards Collaborative Writing Practices in an EFL Setting.* (Bayrak, S., & Savasci, M.)
- 4-7 August 2017. The 4th World Congress on Extensive Reading (ERWC4), Toyo Gakuen University, Tokyo, Japan. Paper presented: *At First Sight: The Effects of a Short-Term Extensive Reading Program on Turkish EFL Learners' Motivation for Reading and Reading Engagement*. (Savasci, M., & Akyel, A.)
- 2-3 June 2017. IATEFL Research SIG Teachers Research!, Bahcesehir University, Istanbul, Turkey. Paper presented: *The Effects of an Undergraduate Research Course on Students' Attitudes towards Engagement with Research*. (Savasci, M., & Rets, I.)
- 20-21 April 2017. The 3rd Cukurova International ELT Teachers Conference (CUELT 2017), Cukurova University, Adana, Turkey. Paper presented: *Linguistic (im)politeness and (in)directness: A cross-cultural study of interlanguage refusals*.
- 20-21 April 2017. The 3rd Cukurova International ELT Teachers Conference (CUELT 2017), Cukurova University, Adana, Turkey. Paper presented: *Alone can we really do so little and together can we do so much? Collaborative writing in L2 classrooms.* (Savasci, M., & Bayrak, S.)
- 12-14 May 2016. The 9th International ELT Research Conference, Çanakkale, Turkey. Paper presented: *All's well that ends well: Exploring assessment preferences in higher education*". (Savasci, M., & Koc, B.).
- 12-14 May 2016. The 6th International Conference on Foreign Language Teaching and Applied Linguistics (FLTAL 2016), Sarajevo, Bosnia-Herzegovina. Paper presented: *Should I have it my way or their way? EFL learners' preferences for feedback provided for their writing assignments.*
- 8-10 June 2015. The IInd International Eurasian Educational Research Congress [2. Uluslararası Avrasya Eğitim Araştırmaları Kongresi], Ankara, Turkey. Paper presented: *Addressing Diversity Regarding Student Teachers' And Experienced EFL Teachers' Concerns. Does Experience Make a Difference?*
- 28-31 August 2013. The 23rd Annual Meeting of the European Second Language Association (EUROSLA), Amsterdam, the Netherlands. Paper presented: *The organization of the mental lexicon in bilingual children* (Genc, E., Savasci, M., & Gurel, A.).

- 2-4 May 2013. 27. Ulusal Dilbilim Kurultayı, Antalya, Turkey. Paper presented: *Türkçe-İngilizce İki Dilli Çocukların Zihinsel Sözlüklerinde Baskın Dilin ve İki Dilliliğin Kelime Organizasyonuna Etkisi*. (Genc, E., & Savasci, M.)
- 5-8 February 2013. The 5th World Conference on Educational Sciences (WCES), Rome, Italy. Paper presented: *Why are Some Students Reluctant to Use L2 in EFL Speaking Classes? An Action Research at Tertiary Level.*

COURSES TAUGHT

- Sakarya University, Sakarya, Turkey (March 2015-Present)

2018-2019 Spring	ELT 104 Listening and Speaking Skills (BA) (3+0)
	ELT 106 Reading and Writing Skills II (BA) (6+0)
	ELT 108 Writing Skills II (BA) (2+0)
	ELT 310 School Experience (BA) (1+3)
	OOE 406 Teaching Practice II (BA) (2+6)
	ELT 024 Advanced Speaking Skills (English Preparatory Program) (6+0)
2018-2019 Fall	ELT 105 Reading and Writing Skills I (BA) (6+0)
	ELT 107 Writing Skills I (BA) (2+0)
	ELT 451 Community Service Practices (1+2)
	ELT 013 Speaking Skills (English Preparatory Program) (6+0)
2017-2018 Spring	ELT 306 Teaching Reading and Writing Skills (BA) (4+4)
	ELT 210 Research Methodology in ELT (BA) (2+2)
	ELT 310 School Experience (BA) (1+3)
2017-2018 Fall	ELT 205 Approaches to ELT (3+0)
	ELT 451 Community Service Practices (1+2)
	ELT 011 Listening Skills (English Preparatory Program) (6+0)
2016-2017 Spring	ELT 210 Research Methodology in ELT (BA) (2+2)
	ELT 306 Teaching Reading and Writing Skills (BA) (4+4)
	ELT 310 School Experience (BA) (1+3)
	Teaching Practice (Pedagogical Formation)
2016-2017 Fall	ELT 105 Reading and Writing Skills I (BA) (6+0)
	ELT 015 Reading Skills (English Preparatory Program) (6+0)

2015-2016 Spring	ELT 106 Reading and Writing Skills II (BA) (6+0)
	ELT 406 Teaching Practice II (BA) (2+6)
	ELT 310 School Experience (BA) (1+3)
	Teaching Practice (Pedagogical Formation)
2015-2016 Fall	ELT 105 Reading and Writing Skills I (BA) (6+0)
	ELT 303 Teaching Speaking and Listening Comprehension Skills (BA) (4+4)
	ELT 015 Reading Skills (English Preparatory Program) (6+0)

- Yeditepe University, Istanbul, Turkey (February 2012-August 2013)

2012-2013 Fall	CET 103 Computer Applications in Education (BA) (3+0)
2011-2012 Spring	EDEN 104 Introduction to Oral Communication I (BA) (3+0)

OTHER PROFESSIONAL ACTIVITIES

Reviewer for Educational Sciences: Theory and Practice (ESTP) since 2016

Reviewer for Eurasian Journal of Applied Linguistics (EJAL) since 2019

GRANTS & SCHOLARSHIP

2017: Full grant provided by the Organization Committee of the 4th World Congress on Extensive Reading (ERWC4), which was organized at Toyo Gakuen University, Tokyo, Japan during August 4-7, 2017.

2016: TÜBİTAK (The Scientific and Technological Research Council of Turkey) Grant for Attending National Scientific Meetings.

2013: TÜBİTAK (The Scientific and Technological Research Council of Turkey) Grant for Attending International Scientific Meetings.

2012-2019: TÜBİTAK (The Scientific and Technological Research Council of Turkey) National Scholarship for Ph.D. Students.

2012: Yeditepe University Full Education Grant for the Ph.D. Degree.

2011: High Honor Certificate at the B.A. graduation (Top second student).

2007: Yeditepe University Full Education Grant for the Bachelor Degree.

ACKNOWLEDGEMENTS

During my doctoral studies many great people have crossed my path, and I hereby would like to thank all those people who helped me complete this dissertation.

First, I am grateful to my admirable supervisor Prof. Dr. Ayşe S. Akyel for her guidance, help, and encouragement, whose specialized expertise and inspirational motivation helped me complete this dissertation. I am indeed very lucky and happy to have such a wonderful and supportive supervisor! I have learned a lot and owe her a lot.

I would like to extend my heartfelt thanks to my dearest jury members: to Assoc. Prof. Dr. Hossein Farhady for his generosity with his time and for providing invaluable constructive feedback. Also, many thanks to Assoc. Prof. Dr. Adem Soruç for his continuous guidance, support, and encouragement. To Prof. Dr. Yasemin Bayyurt and to Assist. Prof. Dr. Evrim Eveyik-Aydın, I would like to thank for their constructive comments and suggestions for my dissertation; it was such a privilege to have them in my jury.

My instructors who taught me during my bachelor's, master's, and doctoral degrees at Yeditepe University also deserve a big thank you: Assoc. Prof. Enisa Mede, Assist. Prof. Yasemin Yıldız, Assist. Prof. Yeşim Keşli Dollar, Assist. Prof. Zeynep Koçoğlu, and many others. However, I most particularly would like to thank Prof. Dr. Ayşe Gürel, for being such a great role model to me as well as for being a great example of nobility.

I also would like to thank dearest Prof. Dr. Firdevs Karahan, the Dean of the Faculty of Education at Sakarya University, for the emotional, professional, and institutional support she provided all along. I am also grateful to my colleagues and friends at Sakarya University for being my side whenever I needed help, in particular to Burcu Koç, Elif Bozyiğit, N. Burçin Hamutoğlu, Gözde Sezen-Gültekin, İlknur Kılıç, and Merve Yıldız.

Furthermore, I would like to thank my colleagues at Özyeğin University School of Languages for their collegiality, especially my beloved office mates.

To my dear students, I would like to thank them for making this study possible, without whose presence I would not be able to conduct this study.

I must also thank the Scientific and Technological Research Council of Turkey (TÜBİTAK) for the Ph.D. scholarship provided to me during my doctoral studies with the BİDEB 2211-A National Ph.D. Fellowship Programme.

I also owe special and huge thanks to my dearest friends (and colleagues) Ece Genç-Yöntem, Filiz Öğüt-Şermet, Hande Kurt, Merve Selçuk, Özlem Yalçın-Çolakoğlu for their priceless friendship and all the cheerful memories we shared for long years, who have been everything to me—coursemates, officemates, and lifelong friends. Thanks a million!

My dear friends Gizem Akçor and Seval Kaygısız, words fall short to tell how special they are to me. Gizem, thanks for being such an amazing friend, making the world a better place, and adding truckloads of good times in my life. Seval, thank you for always inspiring and helping me, igniting my passion for learning, and believing in me. To my dearest friends Şuay Aydin, Peren Alper, and Yasemin Çeliker, I would like to thank them for creating such unforgettable memories that I will treasure forever.

My deepest thanks and gratitude are kept for my beloved family: My parents Ayşe-Cafer Kara and Demet-Ergin Savaşçı, my brother Mert Kara. Thanks for always believing in me, encouraging me, and always cheering me up. I truly feel blessed! And I have kept my final words for my love Orçun Savaşçı. I cannot thank him enough for his patience, support, accompany, care, love, and for being a source of happiness. You just beautify my life!

Thank you all!

To my family,

TABLE OF CONTENTS

Page

DISSERTATION SUBMISSION AND APPROVAL FORM III

CURRICULUM VITAE V

ACKNOWLEDGEMENTS IX

TABLE OF CONTENTS XII

PAGE XII

LIST OF TABLES XX

PAGE XX

LIST OF FIGURES XXIV

PAGE XXIV

LIST OF ACRONYMS XXV

ABSTRACT XXVI

KISA ÖZET XXVIII

CHAPTER I 1

INTRODUCTION 1

1.0. INTRODUCTION 1

1.1. BACKGROUND TO THE STUDY 1

1.2. AN EFL CONTEXT: TURKEY 4

1.3. THE STATEMENT OF THE PROBLEM 6

1.4. THE THEORETICAL BASIS FOR THE STUDY 9

1.4.1. Theoretical background of Sustained Silent Reading 9

1.4.2. Theoretical background of Assisted Repeated Reading 11

1.5. THE PURPOSE OF THE STUDY 12

1.6. RESEARCH QUESTIONS AND PREDICTIONS 13

1.7. THE CONTRIBUTION OF THE STUDY 15

1.8. OVERVIEW OF METHODOLOGY 16

1.8.1. Participants and setting. 16

1.8.2. Treatment. 17

1.8.3. Data collection. 18

1.8.4. Data analysis. 18

1.9. OPERATIONAL DEFINITIONS 19

1.10. THE ORGANIZATION OF CHAPTERS 21

CHAPTER II 24

EFL/ESL READING COMPREHENSION 24

2.0. INTRODUCTION 24

2.1. DEFINITION OF READING COMPREHENSION 24

2.2. PREDICTORS OF READING COMPREHENSION 27

2.2.1. Reading comprehension and silent reading rate. 27

2.2.2. Vocabulary knowledge. 30

2.2.3. Individual factors. 34

2.2.3.1. Motivation for reading. 34

2.2.3.2. Attitudes toward reading. 37

2.3. CHAPTER SUMMARY 38

CHAPTER III 40

REVIEW OF LITERATURE 40

3.0. INTRODUCTION 40

3.1. EXTENSIVE READING 40

3.1.1. Extensive Reading practices. 41

3.2. SUSTAINED SILENT READING AS AN EXTENSIVE READING APPROACH 42

3.2.1. Studies on possible effects of SSR. 44

3.2.1.1. SSR studies on comprehension and rate in L2 settings. 44

3.2.1.2. SSR studies on vocabulary in L2 settings. 49

3.2.1.3. SSR studies on reading motivation and attitudes toward reading in L2 settings. 53

3.2.2. Weaknesses of SSR studies and gaps in the literature. 58

3.3. REPEATED READING 62

3.3.1. Repeated reading practices. 64

3.4. ASSISTED REPEATED READING AS A REPEATED READING APPROACH 64

3.4.1. Studies on possible effects of ARR. 66

3.4.1.1. ARR studies on comprehension and rate in L2 settings. 66

3.4.1.2. ARR studies on vocabulary in L2 settings. 71

3.4.1.3. ARR studies on reading motivation and attitudes toward reading in L2 settings. 76

3.4.2. Weaknesses of earlier ARR studies and gaps in the literature. 78

3.5. CHAPTER SUMMARY 79

CHAPTER IV 80

METHODOLOGY 80

4.0. INTRODUCTION 80

4.1. THE METHODS OF INQUIRY AND RESEARCH DESIGN 80

4.2. THE SETTING FOR THE STUDY 84

4.3. PARTICIPANTS 85

4.3.1. Attrition. 86

4.3.2. Final sample 87

4.4. THE RESEARCHER 90

4.5. THE TREATMENT 91

4.6. INSTRUCTIONAL AND EXPERIMENTAL PROCEDURES 93

4.6.1. Instructional and experimental procedures for experimental classes. 95

4.6.1.1. Experimental classes focusing on SSR and ARR. 95

4.6.1.1.1. Sustained Silent Reading group. 95

4.6.1.1.2. Assisted Repeated Reading group. 102

4.6.2. Comparison class focusing on traditional reading. 107

4.6.2.1. Traditional Reading group. 107

4.7. MATERIALS 109

4.7.1. Instructional materials. 109

4.7.2. Data collection materials. 109

4.7.2.1. Quantitative data collection 110

4.7.2.1.1. Michigan English Placement Test (EPT). 110

4.7.2.1.2. Reading comprehension and silent reading rate test. 113

4.7.2.1.3. Vocabulary Levels Test 117

4.7.2.1.3.1. Receptive vocabulary test. 117

4.7.2.1.3.2. Productive vocabulary test 118

4.7.2.1.4. Motivation for Reading Questionnaire 120

4.7.2.2. Qualitative data collection. 123

4.7.2.2.1. Participant reflections. 123

4.7.2.2.2. Semi-structured focus-group interviews. 123

4.7.2.2.3. Researcher's field notes and research journal. 124

4.8. DATA COLLECTION PROCEDURE 125

4.9. DATA ANALYSIS 128

4.9.1. Marking process. 128

4.9.2. Quantitative data analysis. 130

4.9.2.1. Assumptions for statistical analyses. 132

4.9.3. Qualitative data analysis. 134

4.9.3.1. Qualitative content analysis. 134

4.10. CHAPTER SUMMARY 136

CHAPTER V 137

RESULTS 137

5.0. INTRODUCTION 137

5.1. PRELIMINARY ANALYSES 137

5.2. QUANTITATIVE DATA RESULTS 140

5.2.1. Reading comprehension and silent reading rate. 141

5.2.2. Vocabulary knowledge. 154

5.2.2.1. Receptive vocabulary knowledge. 154

5.2.2.2. Productive vocabulary knowledge. 159

5.2.3. Reading motivation. 165

5.2.4. Predictors of reading comprehension. 173

5.2.5. Summary of quantitative data results. 176

5.3. CHAPTER SUMMARY 179

CHAPTER VI 180

DISCUSSION 180

6.0. INTRODUCTION 180

6.1. DISCUSSION OF RESEARCH QUESTION 1 181

6.1.1. Reading comprehension. 181

6.1.1.1. Reading comprehension and proficiency. 184

6.1.2. Silent reading rate 186

6.1.2.1. Silent reading rate and proficiency. 192

6.1.3. Vocabulary knowledge. 194

6.1.3.1. Receptive vocabulary knowledge. 194

6.1.3.1.1. Receptive vocabulary knowledge and proficiency. 197

6.1.3.1.2. Summary of the discussion on receptive vocabulary knowledge. .. 199

6.1.3.2. Productive vocabulary knowledge. 200

6.1.3.2.1. Productive vocabulary knowledge and proficiency. 204

6.1.3.2.2. Summary of the discussion on productive vocabulary knowledge. 205

6.1.4. Motivation for reading and attitudes toward reading in English. 206

6.1.4.1. Motivation for reading. 206

6.1.4.1.1. Reading motivation and proficiency. 211

6.1.4.1.1.1. Intrinsic reading motivation and proficiency. 212

6.1.4.1.1.2. Extrinsic reading motivation and proficiency. 213

6.1.4.2. Attitudes. 214

6.2. DISCUSSION OF RESEARCH QUESTION 2 216

6.3. DISCUSSION OF RESEARCH QUESTION 3 221

6.4. CHAPTER SUMMARY 224

CHAPTER VII 225

CONCLUSION 225

7.0. INTRODUCTION 225

7.1. CONCLUSION 225

7.1.1. Research Question 1. 226

7.1.2. Research Question 2. 231

7.1.3. Research Question 3. 232

7.2. IMPLICATIONS 233

7.3. LIMITATIONS OF THE STUDY 236

7.4. SUGGESTIONS FOR FURTHER STUDIES 238

REFERENCES 240

APPENDICES 258

APPENDIX A: READING ACTIVITIES IMPLEMENTED IN THE SSR AND ARR GROUPS 258

APPENDIX B: READING LOG 270

APPENDIX C: READING ACTIVITY OF THE SSR GROUP (INDIVIDUAL AND AVERAGE AMOUNT READ BY THE SSR GROUP) 271

APPENDIX D: READING COMPREHENSION AND SILENT READING RATE TEST..... 274

APPENDIX E: ITEMS IN THE MOTIVATION FOR READING QUESTIONNAIRE (ADAPTED FROM WANG & GUTHRIE, 2004)..... 282

APPENDIX F: SEMI-STRUCTURED FOCUS-GROUP INTERVIEW QUESTIONS (ADAPTED FROM SUK, 2015)..... 284

LIST OF TABLES

Page

TABLE 4.1. SUMMARY OF VARIABLES IN THE STUDY 82

TABLE 4.2. THE INITIAL AND FINAL SAMPLE SIZE FOR EACH TREATMENT GROUP 86

TABLE 4.3. THE CAUSES AND AMOUNT OF PARTICIPANT ATTRITION 87

TABLE 4.4. DEMOGRAPHIC DETAILS OF THE FINAL SAMPLE 87

TABLE 4.5. KRUSKAL WALLIS-H STATISTICS AND DESCRIPTIVES OF TREATMENT GROUPS ON MICHIGAN EPT 89

TABLE 4.6. CEFR AND SKILLS LEVEL SCORES OF PARTICIPANTS FOR EACH GROUP 89

TABLE 4.7. THE DESIGN OF CLASS TIME FOR THE TREATMENT GROUPS 92

TABLE 4.8. DETAILS OF 14-WEEK INSTRUCTION FOR REGULAR CLASS HOURS 94

TABLE 4.9. THE SEQUENCE OF A REGULAR SSR SESSION 99

TABLE 4.10. SUMMARY OF 10-WEEK INSTRUCTION FOR SSR 100

TABLE 4.11. A SAMPLE ACTIVITY FROM THE SSR INSTRUCTION 101

TABLE 4.12. SEQUENCE OF A REGULAR ARR SESSION 104

TABLE 4.13. SUMMARY OF 10-WEEK INSTRUCTION FOR ARR 104

TABLE 4.14. THE WEEKLY SCHEDULE FOR THE ARR GROUP 107

TABLE 4.15. WEEKLY TOPICS IN THE TR GROUP 108

TABLE 4.16. THE DESCRIPTION OF ITEM TYPES IN MICHIGAN EPT (2006) 111

TABLE 4.17. CEFR AND SKILLS LEVEL SCORES OF MICHIGAN EPT (2006) 112

TABLE 4.18. PTE GENERAL READING COMPREHENSION TESTS AND THE PROFICIENCY LEVELS 115

TABLE 4.19. READING EASE AND GRADE LEVELS OF THE PASSAGES IN THE READING COMPREHENSION TEST 116

TABLE 4.20. MOTIVATION FOR READING QUESTIONNAIRE 121

TABLE 4.21. THE SEQUENCE OF DATA COLLECTION 127

TABLE 5.22. DESCRIPTIVE STATISTICS FOR INDIVIDUAL AND AVERAGE AMOUNT READ BY THE SSR GROUP 138

TABLE 5.23. THE TOTAL NUMBER OF WORD COUNT FOR THE ARR GROUP 139

TABLE 5.24. THE TOTAL NUMBER OF WORD COUNT FOR THE TR GROUP 139

TABLE 5.25. AMOUNT OF WORDS READ BY THE EXPERIMENTAL GROUPS 139

TABLE 5.26. DESCRIPTIVE STATISTICS FOR THE READING COMPREHENSION TEST PRE-AND POST-TEST SCORES 141

TABLE 5.27. MEAN SCORES OF THE LOW AND HIGH PROFICIENCY PARTICIPANTS AT THE READING COMPREHENSION TEST 144

TABLE 5.28. READING COMPREHENSION MEAN RANKS ACROSS SSR, ARR, AND TR 146

TABLE 5.29. DESCRIPTIVE STATISTICS FOR THE SILENT READING RATE PRE-AND POST-TEST SCORES 147

TABLE 5.30. TEST OF BETWEEN-SUBJECTS EFFECTS 148

TABLE 5.31. ADJUSTED POSTTEST WPMS 148

TABLE 5.32. MEAN SCORES OF THE LOW AND HIGH PROFICIENCY PARTICIPANTS REGARDING THEIR WPMS 151

TABLE 5.33. SILENT READING RATE MEAN RANKS ACROSS SSR, ARR, AND TR 153

TABLE 5.34. DESCRIPTIVE STATISTICS FOR THE RECEPTIVE VOCABULARY TEST PRE-AND POST-TEST SCORES 154

TABLE 5.35. DESCRIPTIVE STATISTICS AND WILCOXON SIGNED RANK TESTS RESULTS FOR RECEPTIVE VOCABULARY LEVELS PER TREATMENT GROUP 156

TABLE 5.36. DESCRIPTIVE STATISTICS OF THE LOW AND HIGH PROFICIENCY PARTICIPANTS REGARDING THEIR RECEPTIVE VOCABULARY KNOWLEDGE 157

TABLE 5.37. RECEPTIVE VOCABULARY TEST MEAN RANKS ACROSS SSR, ARR, AND TR 158

TABLE 5.38. DESCRIPTIVE STATISTICS FOR THE PRODUCTIVE VOCABULARY TEST PRE- AND POST-TEST SCORES 159

TABLE 5.39. DESCRIPTIVE STATISTICS AND WILCOXON SIGNED RANK TESTS RESULTS FOR PRODUCTIVE VOCABULARY LEVELS PER TREATMENT GROUP 162

TABLE 5.40. DESCRIPTIVE STATISTICS OF THE LOW AND HIGH PROFICIENCY PARTICIPANTS REGARDING THEIR PRODUCTIVE VOCABULARY KNOWLEDGE 163

TABLE 5.41. PRODUCTIVE VOCABULARY TEST MEAN RANKS ACROSS SSR, ARR, AND TR 164

TABLE 5.42. DESCRIPTIVE STATISTICS FOR THE MOTIVATION FOR READING TEST PRE-AND POST-TEST SCORES 165

TABLE 5.43. DESCRIPTIVE STATISTICS AND WILCOXON SIGNED RANK TEST RESULTS FOR THE CONSTRUCTS OF THE MOTIVATION FOR READING TEST PRE-AND POST-TEST SCORES 168

TABLE 5.44. DESCRIPTIVE STATISTICS AND WILCOXON SIGNED RANK TEST RESULTS FOR THE CONSTRUCTS OF THE INTRINSIC MOTIVATION FOR READING TEST PRE-AND POST-TEST SCORES 169

TABLE 5.45. DESCRIPTIVE STATISTICS AND WILCOXON SIGNED RANK TEST RESULTS FOR THE CONSTRUCTS OF THE EXTRINSIC MOTIVATION FOR READING TEST PRE-AND POST-TEST SCORES 169

TABLE 5.46. MEAN AND MEDIAN READING MOTIVATION SCORES OF LOW AND HIGH PROFICIENCY PARTICIPANTS 170

TABLE 5.47. CORRELATION MATRIX FOR DEPENDENT VARIABLES AT THE PRE AND POST-TESTS (SPEARMAN RHO) 175

TABLE 5.48. PRETEST-POSTTEST GAINS MADE (IN MEDIAN SCORES) BY EACH EXPERIMENTAL GROUP 177

TABLE 5.49. PRETEST-POSTTEST GAINS MADE (IN MEDIAN SCORES) BY LOW AND HIGH PROFICIENCY LEARNERS 178

LIST OF FIGURES

Page

FIGURE 1. THE VICIOUS CYCLE OF THE WEAK READER 28

FIGURE 2. THE VICTORIOUS CYCLE OF THE GOOD READER 29

FIGURE 3. EXAMPLE MULTIPLE CHOICE QUESTION ITEM TYPE WITH ITS ANSWER 114

FIGURE 4. EXAMPLE OPEN-ENDED QUESTION ITEM TYPE WITH ITS ANSWER 115

FIGURE 5. SAMPLE ITEM FROM THE 2K LEVEL FROM THE RECEPTIVE VOCABULARY TEST 118

FIGURE 6. SAMPLE ITEM FROM THE 10K LEVEL FROM THE PRODUCTIVE VOCABULARY TEST 119

FIGURE 7. GENERAL READING COMPREHENSION MEDIAN SCORES ACROSS GROUP AND TIME 143

FIGURE 8. SILENT READING RATE AND COMPREHENSION MEAN SCORES ACROSS GROUP AND TIME (ADJUSTED POSTTEST MEANS) 150

FIGURE 9. RECEPTIVE VOCABULARY KNOWLEDGE MEDIAN SCORES ACROSS GROUP AND TIME 155

FIGURE 10. PRODUCTIVE VOCABULARY KNOWLEDGE MEDIAN SCORES ACROSS GROUP AND TIME 160

FIGURE 11. INTRINSIC AND EXTRINSIC READING MOTIVATION SCORES ACROSS GROUP AND TIME 166

FIGURE 12. POSTTEST MEDIAN SCORES OF LOW AND HIGH PROFICIENCY LEARNERS FOR EACH MEASUREMENT 173

LIST OF ACRONYMS

ARR- Assisted Repeated Reading

CoHE- Council of Higher Education

EPT- English Placement Test

ER- Extensive Reading

EFL- English as a Foreign Language

ESL- English as a Second Language

ELT- English Language Teaching

GRs- Graded Readers

L1- First Language

L2- Second/Foreign Language

MoNE- Ministry of National Education

MRQ- Motivation for Reading Questionnaire

NRP- National Reading Panel

PR- Pleasure Reading

RR- Repeated Reading

SSR- Sustained Silent Reading

TOEFL- Test of English as a Foreign Language

TR- Traditional Reading

WPM- Word per Minute

ABSTRACT

Bridging the Gap: Comparing the Relative Effects of Sustained Silent Reading (SSR), Assisted Repeated Reading (ARR), and Traditional Reading (TR) on EFL Learners' Reading Comprehension and Silent Reading Rate, Vocabulary Knowledge, Motivation for Reading, and Attitudes toward Reading

by

Merve Savaşçı

This quasi-experimental study, which employed a pretest-posttest design and a mixed-methods approach, aimed (1) to investigate the effects of 10-week Sustained Silent Reading (SSR), Assisted Repeated Reading (ARR), and Traditional Reading (TR) instructions on reading performance of Turkish EFL university students in terms of their L2 reading comprehension and silent reading rate, vocabulary knowledge (i.e., receptive and productive vocabulary knowledge), and individual factors involving L2 reading motivation (i.e., intrinsic and extrinsic motivation for reading) and attitudes toward reading in L2 by also taking into consideration the possible effect of different proficiency levels (i.e., low and high-proficiency participants) both *within* and *across* groups. The *second* aim was (2) to investigate the relationship among L2 reading comprehension, silent reading rate, vocabulary knowledge (i.e., receptive and productive), and reading motivation (i.e., intrinsic and extrinsic). The *third* and the final aim was (3) to discover the predictors of L2 reading comprehension.

For the purposes of the study, a sample of forty-one Turkish EFL students enrolled in the English Preparatory Program, Department of Foreign Languages

Education, Faculty of Education at a mixed-medium state university in Turkey participated in this study. The quantitative data came from (a) a general reading comprehension and silent reading rate test, (b) vocabulary tests, and (c) a motivation for reading questionnaire—all of which were administered as both pre and posttests. On the other hand, the qualitative data came from (d) participant reflections and (e) semi-structured focus-group interviews.

The findings of the study revealed that since none of the three treatments focused in this study (i.e., SSR, ARR, and TR) did not by themselves improve all the components of L2 reading comprehension, "hybrid" reading programs in university-level EFL contexts should be prepared according to the needs of different proficiency-level students. More specifically, findings showed that for lower-proficiency learners, the ARR and TR instructions focusing more on traditional reading and assisted repeated reading instruction provided better results. High-proficiency participants, on the other hand, benefitted more from the SSR instruction where meaningful reading opportunities were provided than the traditional reading classes could provide.

Keywords: sustained silent reading; extensive reading; assisted repeated reading; traditional reading; intensive reading; reading comprehension; silent reading rate; vocabulary; receptive vocabulary; productive vocabulary reading motivation; intrinsic motivation; extrinsic motivation; attitudes toward reading

KISA ÖZET

Aralıksız Sessiz Okuma (ASO), Yardımlı Tekrarlı Okuma (YTO), ve Geleneksel Okuma (GO) Yöntemlerinin İngilizce'yi Yabancı Dil Olarak Öğrenen Öğrencilerin Okuduğunu Anlama ve Sessiz Okuma Hızı, Kelime Bilgisi, Okuma Motivasyonu ve Okumaya Yönelik Tutumları Üzerindeki Nispi Etkilerinin Karşılaştırılması

Merve Savaşçı

Öntest-sontest dizaynı ve karma yöntem yaklaşımını benimseyen bu yarı deneysel çalışmanın amacı, (1) 10-haftalık Aralıksız Sessiz Okuma (ASO), Yardımlı Tekrarlı Okuma (YTO), ve Geleneksel Okuma (GO) öğretimlerinin etkilerini İngilizce'yi yabancı dil olarak öğrenen Türk üniversite öğrencilerinin yabancı dilde okuduğunu anlama ve sessiz okuma hızı, kelime bilgisi (algısal ve üretimsel kelime bilgisi) ve yabancı dilde okuma motivasyonu (içsel ve dışsal okuma motivasyonu) ve yabancı dilde okumaya yönelik tutumlarını kapsayan bireysel faktörler açısından okuma performanslarını, hem grupları içinde hem de gruplar arasında farklı yeterlilik seviyelerinin (düşük ve yüksek dil yeterliliğine sahip katılımcıların) olası etkilerini de göz önüne alarak araştırmaktır. Çalışmanın ikinci amacı, (2) yabancı dilde okuduğunu anlama, sessiz okuma hızı, kelime bilgisi (algısal ve üretimsel) ve okuma motivasyonu (içsel ve dışsal) arasındaki olası ilişkiyi araştırmaktır. Çalışmanın üçüncü ve son amacı ise (3) yabancı dilde okuduğunu anlama becerisinin yordayıcılarını araştırmaktır.

Çalışmanın amaçları doğrultusunda çalışmaya, Türkiye'deki karma dilli bir devlet üniversitesindeki İngilizce Hazırlık Programı, Yabancı Diller Eğitimi Bölümü, Eğitim Fakültesi'nde eğitim gören kırk bir Türk üniversite öğrencisi katılmıştır. Nicel veriler (a) okuduğunu anlama ve sessiz okuma hızı testi, (b) kelime testleri ve (c) okuma motivasyonu anketi ile toplanmış olup, tüm testler ön ve son test olarak uygulanmıştır. Öte yandan, nitel veriler ise (d) katılımcı yansıtmaları ve (e) yarı yapılandırılmış odak grup görüşmelerinden elde edilmiştir.

Çalışmanın bulguları, bu çalışmada odaklanılan üç okuma öğretim türlerinden hiçbirinin (yani, ASO, YTO, ve GO) yabancı dilde okuduğunu anlama becerisinin tüm bileşenlerini tek başına iyileştirmediğini ve bu yüzden de İngilizce'nin yabancı dil olarak öğretildiği üniversite düzeyi bağlamında hem alternatif hem de geleneksel okuma öğretimlerinin bütünleştiği “hibrit” okuma programlarının farklı dil yeterlilik seviyesindeki öğrencilerin ihtiyaçlarına yönelik hazırlanması gerektiğini ortaya koymaktadır. Sonuçlar ayrıca, düşük dil yeterlik seviyesine sahip olan öğrenciler için geleneksel ve yardımlı tekrarlı okuma öğretimine odaklanan YTO ve GO öğretim türlerinin daha faydalı olduğunu gösterirken, yüksek dil yeterlik seviyesine sahip olan öğrencilerin ise anlamlı okuma olanaklarının sunulduğu ASO okuma yönteminden daha fazla yararlandıklarını göstermiştir.

Anahtar kelimeler: aralıksız sessiz okuma; yaygın okuma; yardımlı tekrarlı okuma; geleneksel okuma; yoğun okuma; okuduğunu anlama; sessiz okuma hızı; kelime; algısal kelime bilgisi; üretimsel kelime bilgisi; okuma motivasyonu; içsel motivasyon; dışsal motivasyon; okumaya yönelik tutum

CHAPTER I

INTRODUCTION

1.0. Introduction

This chapter introduces the (a) background to the present study, (b) setting of the study, and (c) statement of the problem, (d) theoretical basis for the study, as well as its (e) purpose, (f) research questions and predictions, and (g) contributions, followed by (h) an overview of methodology, (i) operational definitions, and (j) the organization of the chapters.

1.1. Background to the Study

Reading is a complex, dynamic, and multifaceted process (Grabe, 1991, 2009; Koda, 2005; Nassaji, 2003; Plaut, 2005; Urquhart & Weir, 2013; Jiang, 2017). In the most general sense, it refers to "the process of receiving and interpreting information encoded in language form via the medium of print" (Urquhart & Weir, 1998, p. 22). Nonetheless, reading in a second and/or in a foreign language (L2) differs from reading in the first language (L1) in several aspects. Despite potential transfer effects and shared properties of L1 and L2 reading, the ability to read in L2—as opposed to L1 reading abilities—goes beyond one's ability to make or build meaning from print because L2 reading has a

relatively more covert nature and includes other elements such as L2 readers' L1 reading ability and L2 proficiency (Bernhardt & Kamil, 1995; Carrell, 1991; Liu, 2014). Indeed, L2 reading might be considered "both as a means to the end of acquiring the language, as a major source of comprehensible input, and an end itself, as the skill" (Eskey, 2005, p. 563). Thus, L2 reading is oftentimes deemed comparatively more complex than L1 reading and is, therefore, a *laborious* process.

However, although L2 reading is regarded as a *laborious* process, its development is taken for granted in a majority of EFL settings, particularly in university settings. Assuming that university-level L2 learners (young adults or adults) have already acquired basic literacy skills in their L1 and that they can thus directly transfer them to their L2, reading curricula —in general— do not give due importance to reading instruction in L2 classes. However, particularly in EFL academic contexts, having effective L2 reading abilities is a *sine qua non* for academic success in a majority of secondary and university contexts because any reading difficulties might result in demonstrating poor performance in other educational activities, like in the Turkish EFL context.

In the Turkish EFL context, the major local educational problem at all levels of education is the lack of continuous and meaningful L2 reading input. Although English reading curricula at universities are more flexible and independent when compared to state K-12 curricula, traditional English reading instruction still reigns over other reading instructional approaches at universities. In other words, reading itself takes very little classroom time whereas the bulk of the time is generally spent on pre or post-reading language activities in the textbook, rather than on reading *per se*. Therefore, the majority of university students in the Turkish context, where reading in L1 is not commonly an

intensive activity, experience problems in their L2 reading skills and are not sufficiently motivated to read in L2. A way to overcome university-level Turkish EFL learners' reading-related problems, to uplift their L2 reading motivation, and to foster their L2 reading skills might be devoting some class time to individual reading activities and implementing a different approach to L2 reading instruction, like a sustained silent reading (SSR) or an assisted repeated reading (ARR) instruction. And recently, integrating sustained silent reading or repeated reading activities into the L2 reading programs has been forefronted given that they provide more opportunities for reading. As Macalister (2014, p. 393) puts it, providing reading opportunities occupies an important place:

> [...] An athlete can give close attention to diet and devote hours to exercising in the gym, but without actually going out to run regularly she will not gain, or maintain, the benefits of this regime. Similarly, students can spend hours on intensive reading activities in class, and even follow a speed reading course for a time, but without a programme of [...] reading, giving them the opportunity to put their skills into practice, the benefits from the first two activities will be sub-optimal.

It should thus come as no surprise that if meaningful opportunities for language learners to read in L2 are not provided, they may not take advantage of those provided by traditional reading instruction. Thus, starting from this point of view, the present study aims to integrate SSR and ARR in traditional L2 reading instruction programs in a Turkish EFL university setting. In doing so, the study strives to conduct an investigation into the effects of such an integrated (or hybrid) reading programme on L2 reading

comprehension, silent reading rate, vocabulary knowledge, reading motivation, and their attitudes toward reading— which are all considered among the important predictors of effective reading abilities.

1.2. An EFL Context: Turkey

In Turkey, compulsory education lasts 12 years (from age 6 to age 18) and is divided into three levels: (1) primary school (Grades 1-4, four years), (2) middle / secondary school (Grades 5-8, four years), and (3) high school (Grades 9-12, four years). Governed by the Ministry of Education (MoNE), compulsory education is delivered by both state and private schools, where the medium of instruction is predominantly Turkish—the official language of the country. And corresponding with foreign language education, English has steadily turned into the most favored foreign language among the foreign languages taught at schools and universities in Turkey, particularly during the epoch after the Second World War that has given rise to English as the dominant language throughout the world.

English, which has been a compulsory foreign language course in state primary and secondary education curricula since 1997, is taught as a foreign language (EFL) in the Turkish context. In state schools, formal English language education currently begins from the second grade (Grade 2) onward at primary school—at around the age of eight. Two classes of 40-minute English instruction are provided per week in the primary school curriculum, and three and four classes (of 40-minute instruction) per week are provided in Grades 5-6 and 7-8 respectively in the middle school curriculum. And, within the scope of the state high school curriculum, classes ranging from two to five classes of 40-minute

English instruction per week are held according to the type of high school programmes (e.g., Science High Schools, Anatolian High Schools, et cetera). On the other hand, in private schools, the situation is rather different: Students oftentimes start to learn English as a foreign language beginning with pre-primary school years (i.e., kindergarten and nursery school), and the number of class hours for English instruction is generally higher than those in state schools at all levels of education.

Like in elementary and secondary schools, there are both state and private universities in the formal Turkish higher education system which is ruled by the Council of Higher Education (CoHE). While most of the state universities are Turkish-medium, some state and most private universities are English-medium. Both English and Turkish-medium universities embody English preparatory programs. However, for undergraduate students enrolled in Turkish-medium universities, English preparatory programs are optional unless they are English Philology and English Education Department students for whom participation in and successful completion of English preparatory programs are a *must.* Those university students (i.e., those studying non-English majors) who are enrolled in preparatory programs and have fulfilled the required proficiency level are then required to take Freshman English courses offered by the university. Overall, for all these groups of students —i.e., K-12 and university students— reading is indeed the most critical skill to master because reading difficulties, particularly in academic contexts, might result in demonstrating poor performance in other educational activities as well. This might affect the performance of the students in some courses due to experiencing difficulties in coping with the requirements of those courses, especially if the medium-of-instruction is English since their academic achievements are mostly contingent upon their success in the foreign

language due to learning content in English. Therefore, having effective reading skills in English is a *sine qua non* both for their educational and future professional success.

1.3. The Statement of the Problem

In the Turkish educational context, the major local educational problem is that most Turkish students who learn English as a foreign language (EFL) in state schools experience difficulties in having a sufficient command of the language despite nearly over a decade they spend for learning English during their K-12 education (from Grade 2 to Grade 12). Indeed, a needs assessment report —Turkey National Needs Assessment (TNNA) report (Özen et al., 2013)— prepared by the British Council in 2013 in collaboration with the Turkish Ministry of National Education (MoNE) and TEPAV (Economic Policy Research Foundation of Turkey) lays bare the severity of this circumstance: In the report, it was indicated that "the competence level in English of most (90+ per cent) state school students across Turkey was evidenced as *rudimentary*— even after 1000+ hours (estimated at the end of Grade 12) of English classes" (pp. 15-16). A basic reason for this circumstance is that English is mostly taught through the grammar based-approach in the Turkish EFL domain (Özen et al., 2013; Kırkgöz, 2007). Accordingly, the biggest emphasis in state schools is laid upon de-contextualized grammar rules rather than upon providing meaningful oral and written input and developing communicative skills. Another basic reason may also be the popularity of high stakes tests —centralized competitive national examinations— in Turkey. For example, Turkish students are admitted to high school via their scores on a national high school admission test— a multiple-choice test which is held annually. And, students' scores on this test determine the type of high school they are

admitted to, which —in turn— determines their whole life. English teachers at primary and middle schools are therefore under the pressure of school administration and the parents who demand that their children should excel at and receive a high score on the test since English is a part of this test, too. Therefore, Turkish EFL learners mostly engage in studying grammar rules and memorizing vocabulary as well as in mastering test-taking skills, yet they are not provided with the authentic or communicative uses of English.

Another widely acknowledged problem of Turkish EFL learners is that they do not read in English. As also articulated in the Turkey National Needs Assessment (TNNA) report released by the British Council (Özen et al., 2013), reading books was the least preferred activity among other English language extracurricular activities. According to the report, only 17 per cent of the participants declared that they read books in English as an extracurricular activity (p. 49). The classroom contexts and reading activities, in a similar vein, are far from engaging students in reading. A traditional activity in the Turkish EFL context is a student or the teacher reading aloud a passage in English from a mandated textbook, and answering the comprehension questions, and doing vocabulary and grammar exercises related to the passage; in fact, little attention is paid to the meaningful or to the communicative use of the foreign language. L2 reading instruction in Turkey can be best sketched out like this, and therefore, English reading classes are usually identified by Turkish EFL learners with descriptions such as “difficult”, “boring”, “undesirable”, and “unpleasant” (Yılmaz, 2012). As opposed to helping them develop the needed skills to become effective readers, the curricular aims, goals, and objectives remain in the forefront. Especially in academic environments, students cannot go beyond reading as a course

requirement, and their reading is mostly limited to reading the short challenging texts in the mandated textbooks, which they often read ponderously.

Those students who pass the university English proficiency exam —as mentioned previously— take the freshman English courses, which focus mainly on reading and writing skills in a majority of university settings. Despite being more flexible and independent on the contrary to state K-12 curricula, English reading curricula at universities still tend to focus on traditional English reading instruction rather than on alternative input-rich reading instructions. In those freshman courses, like in English reading classes in K-12 education, very little classroom time is devoted to reading. There is no exposure to English outside the class, and class time which is generally delivered in Turkish is limited to reading a short text and to answering follow-up questions— to help them process the content in Turkish. So, Turkish university students do not engage in reading much in English classes. Consequently, they might have poor L2 reading skills, which, in turn, might lead to poor academic performance in the long run because learning academic informational content while struggling with poor L2 reading skills is a formidable process.

In the field of foreign language teaching, as one effective reading instructional approach, extensive reading— reading large amounts of L2 materials within one's linguistic competence (Krashen, 2004) and Sustained Silent Reading (SSR)—a particular form of extensive reading, or silent, independent reading incorporated into class time (Pilgreen, 2000) have been used. Like sustained silent reading, another effective instructional method for fostering reading skills is repeated reading— reading a text over and over again until reaching a certain level of fluency and comprehension (Kuhn & Stahl,

2003) and Assisted Repeated Reading (ARR)— a particular form of repeated reading where audio-assistance is provided (Taguchi, Takayasu-Maass, & Gorsuch, 2004; Taguchi, Gorsuch, & Sasamoto, 2006). Considering the detailed description of the Turkish EFL domain with its salient characteristics, it can be pointed out that the need for different reading instructional approaches such as SSR or ARR is grand. In this respect, however, neither of these instructions has been widely implemented in the Turkish EFL contexts. Moreover, although there are two different lines of research on sustained silent reading and assisted repeated reading separately, empirical studies investigating the effects of these two types of reading instruction are lacking. Moreover, the question of whether reading a variety of materials (as in sustained silent reading) or rereading the same materials (as in assisted repeated reading) contributes more to L2 reading competence has been remained unanswered. Considering that each mode of instruction has its own advantages and disadvantages, this study compares their potential effects in an integrated (i.e., hybrid) reading programme.

1.4. The Theoretical Basis for the Study

1.4.1. Theoretical background of Sustained Silent Reading

As one form of extensive reading which is deemed one of the ways to provide large amounts of input by engaging learners with substantial amounts of reading, the theoretical background of sustained silent reading programs lies under Comprehension Hypothesis (Krashen, 1989)— a hypothesis which evolved out of Krashen's Input Hypothesis (1985). In accordance with the Comprehension Hypothesis (Krashen, 1989),

language acquisition takes place once learners receive language messages they can comprehend; i.e., when they receive comprehensible input by listening or by reading. According to Krashen, however, it is imperative that learners be provided with comprehensible input beyond their current linguistic level of competence, which is appropriate for the next level in their acquisition process. A particular manifestation of the Comprehension Hypothesis is the Reading Hypothesis (Krashen, 2018), which suggests that "reading is a form of comprehensible input and results in the acquisition of literacy-related aspects of language." (Krashen, 2018, p. 18). Accordingly, reading acts as a form of comprehensible input for language learners. Thus, the theoretical background of sustained silent reading also lies in the Reading Hypothesis (Krashen, 2018).

However, Krashen also suggests that input is necessary —although not sufficient— for learning languages. The input should also be interesting, according to the Compelling Comprehensible Input Hypothesis (Krashen, 2018). That is, the input should not only be interesting; it should also be compelling so that the learners would feel that they are in a "flow" (Csikszentmihalyi, 1990). Thus, the theoretical background for sustained silent reading also lies in the Flow Theory (Csikszentmihalyi, 1990). In flow experiences, "Concentration is so intense that there is no attention left over to think about anything irrelevant, or to worry about problems. Self-consciousness disappears, and the sense of time becomes distorted" (p. 71), as it happens in self-selected sustained silent reading practices: Learners occupy themselves with independent self-selected reading in a sustained period of time regularly and are not responsible for any traditional or demanding post-reading language activities (e.g., writing book summaries); rather, they

read for pleasure and are exposed to input at the same time, by concentrating upon their readings and by being in a *flow* (Csikszentmihalyi, 1990) state.

Regarding the reading motivational effects on learners, Social Cognitive Theory (Bandura, 1977) (heretofore called Social Learning Theory-SLT) offers another explanation for the theoretical basis of sustained silent reading because in sustained silent reading practices, learners engage in independent silent reading activity for a particular time period in the classroom environment— a social environment where they see effective models of readers such as other learners and the instructor. And according to this theory, learning new information or behaviour occurs in a social environment where the learner engages in a dynamic relationship with her/his environment by learning through observing others within it. Thus, the theoretical basis of sustained silent reading is also based upon the Social Cognitive Theory (Bandura, 1977) given the sustained silent reading activity that the learners engage in along with the others in the classroom environment.

1.4.2. Theoretical background of Assisted Repeated Reading

In assisted repeated reading practices, learners reread the same text several times until they reach an adequate level of fluency (Kuhn & Stahl, 2003). Considering the aim of the repeated reading practices and the way the fluency is built over a process where learners construct fluency, the theoretical background underpinning repeated reading programs is Jean Piaget's Constructivist Approach. In assisted repeated practices, learners read a text repeatedly, decoding, integrating, and combining all the relevant information necessary for comprehension or construction of the meaning, before they

reach to a certain fluency level—a process during which learners actively take part in constructing the meaning by/for themselves.

Another theoretical basis of assisted repeated reading is that it also lies under the Automaticity Theory (Dowhower, 1987; LaBerge & Samuels, 1974), according to which it is stated that as learners keep being exposed to texts, lower level reading skills are automatized. Samuels (1979), similarly, puts forward that "a fluent reader decodes text automatically" (p. 406), leaving the effort to be paid to the reading comprehension and meaning construction. However, the Automaticity Theory alone cannot account for the theoretical basis of assisted repeated reading.

A cognition theory named the Dual Modality (or Coding) Theory of Mind (Paivio, 1991) (i.e., audiovisual presentation) also provides an explanation to the theoretical basis of assisted repeated reading. According to the theory, the processing of language occurs by using two different modalities (i.e., visual and auditory), which strengthens the memory links. Considering that assisted repeated reading presents the visual (through the text) and the auditory (through the audio-support) input at the same time, assisted repeated reading presents two different modalities at the same time.

1.5. The Purpose of the Study

The purpose of this study is to build upon different lines of research on Sustained Silent Reading (SSR) and Assisted Repeated Reading (ARR). More specifically, this study aims to investigate the effects of Sustained Silent Reading (SSR), Assisted Repeated Reading (ARR), and Traditional Reading (TR) instructions on reading performance of EFL university students at two different proficiency levels (i.e., low and high proficiency

participants) regarding their L2 reading comprehension and silent reading rate, vocabulary knowledge, and individual factors (i.e., L2 reading motivation and attitudes toward reading in L2).

1.6. Research Questions and Predictions

For the purposes of the study, this study attempts to investigate the following research questions and the sub-questions:

1. Is there an effect of three different treatments, namely sustained silent reading (SSR), assisted repeated reading (ARR) and traditional reading (TR) on EFL learners' (1a) reading comprehension and silent reading rate?, (1b) vocabulary knowledge? (1c) reading motivation and (1d) attitudes toward reading at two different proficiency levels? Specifically speaking, two specific questions are asked:

    1.1. Within the same treatment group, does the effect of SSR, ARR, and TR treatments on EFL learners' (a) reading comprehension and silent reading rate, (b) vocabulary knowledge, and (c) reading motivation significantly vary according to two different proficiency levels (i.e., low and high proficiency participants)?

    1.2. Is there a difference among low-proficiency and high-proficiency EFL learners in terms of their gains across SSR, ARR, and TR treatments regarding their (a) reading comprehension and silent reading rate?, (b) vocabulary knowledge?, (c) reading motivation?

2. Is there a relationship among L2 reading comprehension, silent reading rate, receptive and productive vocabulary knowledge, and reading motivation? If so, what is the nature of the relationship among these variables?

3. What are the predictors of L2 reading comprehension?

Taking into account these research questions, the following are predicted:

Prediction 1: There will be a significant change in the L2 reading comprehension, silent reading rate, receptive and productive vocabulary knowledge, motivation for reading, and attitudes toward reading in the SSR group after the treatment.

Prediction 2: There will be a significant change in the L2 reading comprehension and silent reading rate in the ARR group.

Prediction 3: The SSR group will make higher gains in their receptive and vocabulary knowledge, motivation for reading, and in their attitudes toward reading than those in both Assisted Repeated Reading and Traditional Reading groups.

Prediction 4: The ARR group will make higher gains in their general reading comprehension, and silent reading rate and comprehension than those in the SSR and TR groups.

Prediction 5: Both the SSR and the ARR groups will outperform the TR group with respect to all those components stated above.

1.7. The Contribution of the Study

Possible contributions of the study are as follow:

a) First of all, this study conduces to the growing body of research that makes SSR and ARR more accessible to classroom teachers, especially to university instructors who would like to implement and/or integrate these instructions in their classes. There is limited knowledge about the effects of SSR and ARR on university-level students' L2 reading competence, particularly in EFL settings. The current study, thus, is considered to contribute to the literature by implementing both programs with university-level EFL learners. Investigating the feasibility of such an integrated L2 reading programme is an important contribution to both the Turkish EFL context as well as to other L2 contexts adopting similar foreign language education frameworks.

b) Another contribution of this study is that it was conducted with undergraduate students majoring in English Language Teaching (ELT)—that is, with future EFL teachers (i.e., with student teachers). To the best of my knowledge, no study has been conducted with this group of participants. Because people learn about teaching while being students themselves (Lortie, 1975) and their attitudes affect their future teaching practices in the future, conducting such a study with future EFL teachers makes another contribution.

c) Thirdly, the study focuses upon university level learners' 10 week-long experience with SSR, ARR, and TR in detail. Their reflections regarding these types of reading instruction when incorporated into the regular class time provide an understanding of their possible benefits in the university-level EFL settings, particularly in the Turkish EFL context.

d) Fourthly, another under-researched area regarding studies on SSR is that relatively short reading times have been employed in studies. A further contribution of this study to the literature, therefore, is the potential effect of reading time in which the participants engaged in the SSR and ARR groups where the participants read for one class time (i.e., 50 minutes)—an approach which has not been explored empirically yet.

e) Furthermore, this study probes into the comparative effects of the three types of instruction on L2 reading abilities of university students at two different proficiency levels (i.e., low and high proficiency learners).

f) Most importantly, although there have been several different studies on SSR or on ARR separately, to my knowledge, no study has focused on comparing these two reading instructional methods/approaches in terms of several predictors of reading; i.e., L2 reading comprehension, silent reading rate, receptive and productive vocabulary knowledge, L2 reading motivation, and attitudes toward L2 reading.

1.8. Overview of Methodology

1.8.1. Participants and setting.

Forty-one Turkish university students learning English as a Foreign Language (EFL) participated in this study. They were enrolled in the Department of Foreign Languages Teaching/ English Language Teaching Program at a large-sized four-year state university in Turkey. At the time of data collection, the participants were studying in the English Preparatory School of the Department, wherein the students receive 24 class hours of English instruction per week, divided mainly into four main compulsory courses:

Reading, *Writing*, *Listening*, and *Speaking Skills*—each of whom delivers six hours of instruction weekly.

For the purposes of the study, the students in the *Reading Skills* course were randomly distributed into three groups at the beginning of the Fall semester of the 2016-2017 academic year: a sustained silent reading (SSR) (n = 15), an assisted repeated reading (ARR) (n = 14), and a traditional reading (TR) (n = 12) group. The researcher, who was also the instructor of the *Reading Skills* course, taught all the three groups throughout the semester.

1.8.2. Treatment.

The participants took the *Reading Skills* course in the Fall semester of the 2016-2017 academic year, which also served as a treatment for this study. The treatment lasted for a 10-week period. The class met twice a week for three hours, for a total of six hours a week. However, for the purposes of the study, the *Reading Skills* course was redesigned and restructured, and an integrated (i.e., hybrid) reading programme was designed: Of six class hours, half (i.e., 50 per cent, three hours) of the regular class time was allocated for the treatment (either SSR, ARR, or TR), which differed across groups; the other half (i.e., 50 per cent, three hours), on the other hand, was the same for all groups and was allocated for regular traditional reading instruction.

1.8.3. Data collection.

A quasi-experimental mixed-method research design (Creswell & Clark, 2007; Dörnyei, 2007; Tashakkori & Teddlie, 2010) was adopted for this study, for which the data came from qualitative and quantitative data collection instruments. More specifically, an embedded experimental model (Creswell & Clark, 2007) was adopted for the study, where the qualitative data served as secondary data that were used to support quantitative data. For the purposes of research questions, the quantitative data came from (a) a general reading comprehension and silent reading rate test, (b) vocabulary tests, and (c) a motivation for reading questionnaire—all of which were administered as both pre and posttests. On the other hand, the qualitative data came from (d) participant reflections and (e) semi-structured focus-group interviews. The participants wrote their reflections weekly following each treatment session in the classroom during the last 15 minutes of class time, and the researcher also kept short field-notes for each session. For gaining an in-depth understanding of their attitudes toward reading and the treatments, semi-structured focus-group interviews were conducted at the end of the treatment.

1.8.4. Data analysis.

For the analysis of the data, a combination of qualitative and quantitative data analysis strategies was used. Quantitative data obtained from the present study were analyzed by Statistical Package for Social Sciences (SPSS) software (SPSS Inc, Chicago, IL, USA) whereas qualitative data were analyzed by latent content analysis framework

described by Dörnyei (2007). The details of data analysis are given in the following chapters.

1.9. Operational Definitions

Extensive Reading (ER): It refers to "reading in quantity and in order to gain a general understanding of what is read. It is intended to develop good reading habits, to build up knowledge of vocabulary and structure, and to encourage a liking for reading." (Richards & Schmidt, 2010, p. 212).

Sustained Silent Reading (SSR): As one form of extensive reading, SSR refers to a reading instruction where a regular and a fixed period of class time is allocated to silent reading, while the students read self-selected reading materials without being interrupted.

Repeated reading (RR): In repeated reading practices, "L2 learners read specified passages from graded readers repeatedly in order to increase learners' sight recognition of words and phrases, resulting in increased fluency and comprehension" (Taguchi et al., 2004, p. 71).

Assisted repeated reading (ARR): It is a form a repeated reading where the audio version of a text is provided, enabling the readers to listen and read the text simultaneously.

English as a Foreign Language (EFL): "Someone who learns English in a formal classroom setting, with limited or no opportunities for use outside the classroom, in a country in which English does not play an important role in internal communication (China, Japan, and Korea, for example), is said to be learning English as a foreign language." (Richards & Schmidt, 2010, p. 197).

English as a Second Language (ESL): It is "English is the second language of anyone who learns it after learning their first language in infancy in the home" (Richards & Schmidt, 2010, pp. 196-197).

Reading comprehension: It is basically "the ability to extract, interpret, and use information from a print or digital text" (Grabe & Stoller, 2018).

Reading rate: It is simply defined as "the speed at which readers attempt to process text" (Reutzel & Cooter, 1992, p. 458, as cited in Dwyer & West, 1994, p. 4).

Vocabulary knowledge: It is the knowledge of the important aspects of a word's meaning and definition, and the deep understanding of it including its part of speech (whether it is a noun, a verb, an adjective, etc.), antonyms, synonyms, as well as its use in a context.

Receptive vocabulary knowledge: Receptive vocabulary use simply refers to "perceiving the form of a word while listening or reading and retrieving its meaning." (Nation, 2005a, pp. 24-25). Also, receptive vocabulary knowledge "is often defined as the ability to recognise the form of a word (Laufer, Elder, Hill, & Congdon, 2004), perceive its meaning (Webb, 2008) or provide its synonym or translation in a learner's first language (L1) (Webb 2009)." (Zhong, 2018, p. 358)

Productive vocabulary knowledge: Productive vocabulary use "involves wanting to express a meaning through speaking or writing and retrieving and producing the appropriate spoken or written word form" (Nation, 2005a, p. 25). Moreover, productive vocabulary knowledge "is often defined as the ability to retrieve the form and meaning (Laufer et al., 2004; Webb 2008), or to produce the word according to its L1 equivalent (Webb, 2009)." (Zhong, 2018, p. 358)

Motivation: It is "the driving force in any situation that leads to action" (Richards & Schmidt, 2010, p. 377).

Intrinsic motivation: It is the "enjoyment of language learning itself" (Richards & Schmidt, 2010, p. 378)

Extrinsic motivation: It is the motivation "driven by external factors such as parental pressure, societal expectations, academic requirements, or other sources of rewards and punishments." (Richards & Schmidt, 2010, p. 378).

Motivation for reading: It refers to "individual's personal goals, values, and beliefs with regard to the topics, processes, and outcomes of reading" (Guthrie & Wigfield, 2009, p. 405).

Attitude: It is "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993, p.1, as cited in Day & Bamford, 2010, p. 22).

Graded readers: Graded readers refer to simplified books which are specifically written at several various language proficiency levels for language learners and are particularly controlled (or graded) in terms of the vocabulary and complexity of linguistic structures involved in them.

1.10. The Organization of Chapters

The present study is organized in seven chapters. The current chapter —Chapter I— made an introduction to the dissertation by presenting the background to the study, statement of the problem, and contributions of this study. Having presented the research questions, the chapter then listed the study's predictions and contributions. Then, an

overview of the methodology was introduced. Finally, the chapter concluded by providing definitions of the key terminology which will be referred to throughout the study. And, the remainder of chapters is organized as follow:

In Chapter II, the notion of EFL/ ESL reading and its definition from different perspectives are discussed in depth, as well as the presentation and discussion of reading processes. More specifically, lower-level and higher-level processing as well as how these two processes interact with and complement one another are discussed. Afterwards, reading in L2 contexts followed by an overview of the predictors of L2 reading comprehension including silent reading rate, vocabulary knowledge, motivation for L2 reading, and attitudes toward L2 reading are covered.

Subsequently, Chapter III presents a detailed review of the literature. First of all, earlier studies on sustained silent reading as a particular form of extensive reading are reviewed, which is then followed by the presentation of key studies on assisted repeated reading as a particular form of repeated reading, respectively. The shortcomings and the gaps in those earlier studies are also covered within the scope of their discussion, and the chapter then concludes with an overall summary of the literature on sustained silent and assisted repeated reading.

Chapter IV presents the methodology guiding this study, by specifically focusing on the setting and the participants, data collection instruments, data collection procedure, as well as on the details regarding how the data were analyzed. Instructional procedures as to how each type of treatment took place are also described in detail for each experimental group.

In Chapter V, the findings of the study are presented by focusing on quantitative and qualitative data. The findings with respect to the effects of each type of treatment on reading comprehension, silent reading rate, vocabulary knowledge, reading motivation, and attitudes toward reading are addressed. Following it, Chapter VI is related to the discussion of the results of the data by providing detailed responses to the research questions to which answers were sought. In each section, a short summary of the findings is presented with reference to each variable, and then the interpretations of the findings are discussed.

Finally, Chapter VII presents the conclusion in view of the findings of the study along with earlier empirical data. Afterwards, concluding remarks are made by discussing the pedagogical implications which can be drawn from the study and their justifications. The limitations are then clarified, and alternative solutions to these limitations for further research and future researchers are suggested. Lastly, references and appendices are provided through the end of the dissertation.

CHAPTER II

EFL/ESL READING COMPREHENSION

2.0. Introduction

This chapter aims (a) to provide a definition of EFL/ESL reading comprehension and (b) to discuss the predictors of reading comprehension including silent reading rate, vocabulary knowledge, as well as motivation and attitudes as individual factors within the focus of the dissertation.

2.1. Definition of Reading Comprehension

As also indicated in the previous chapter, reading is a complex, dynamic, and a multifaceted language process (Grabe, 1991, 2009; Koda, 2005; Plaut, 2005; Urquhart & Weir, 2013; Jiang, 2017). Simply put, it refers to "information processing: transforming print to speech, or print to meaning" (Coltheart, 2005, p. 6), or to "the process of getting linguistic information via print" (Widdowson, 1979, as cited in Urquhart & Weir, 1998, p. 17). A burgeoning array of such definitions are available in the literature; however, such definitions that deem reading as a simple process and that posit reading as a meaning-making-from-print act do not reflect the true nature of reading, nor its complexity or its multifaceted trajectory. As Urquhart and Weir (1998) articulate, the definition of reading

is “complex” (p. 10) since reading itself is a very complex process, and such complexity resides in that it involves a sheer number of sub-processes.

In fact, reading is “a multivariate skill involving a complex combination and integration of a variety of cognitive, linguistic, and nonlinguistic skills” (Nassaji, 2003, p. 261). From a broader and a more comprehensive perspective, reading is “a multifaceted, complex construct in that it involves a number of component operations, each dependent on a variety of competencies” (Koda, 2005, p. xv), and these competencies constitute lower and higher cognitive processes. Whereas the former deals with automatic skill-oriented processes, the latter deals with the comprehension processes in reading. The process of reading, indeed, depends on the successful coordination of several component skills that are embodied by these lower-level and high-level cognitive processes, which have an important role in one’s ability to read efficiently and fluently (Bernhardt, 1991; Carrell, Devine, & Eskey, 1988; Jiang, 2017; Landi, 2010; Nassaji, 2003; Stanovich, 1980).

What is clear after the bulk of reading research that investigated the relative contribution of these processes to reading comprehension is that both lower level (i.e., “word recognition and grapho-phonemic processing comprising syntactic parsing and semantic proposition encoding”) (Grabe, 2009; Jiang, 2017; Koda, 1992) and higher level (i.e., “text-model formation, situation-model building, inferencing, executive-control processing, and strategic processing”) (Bernhardt & Kamil, 1995; Grabe, 2009; Lee & Schallert, 1997; Nassaji, 2003) processing skills are good predictors of reading comprehension (Jiang, 2017). Briefly speaking, lower-level and higher-level processing skills are combined and integrated, and they interact and act in a complementary way to

build fluent reading comprehension (Grabe, 2009; Grabe & Stoller, 2011). And, the point to be made here is that how reading works lies in the simultaneous operation and interaction of lower-level and higher-level processes at certain points (Grabe, 2009), and that neither of them alone is sufficient for skilful reading. A. Y. Park (2017) summarizes this interrelationship as follows:

> [...] readers read a text by combining the lexical information acquired from rapid and automatic word recognition (i.e., the bottom-up process) with the contextual information obtained by high-order reading processes that utilize schemata in order to make predictions and then confirm those predictions through information checking (i.e., the top-down process). (p. 132)

Skilled reading, in sum, requires the ability to combine lower and higher level processing skills, and these processing skills (i.e., lower and higher level) can develop by exposing learners to abundant, meaningful, and sustained L2 reading input. Apart from the simultaneous operation and interaction of lower and higher order skills, studies indicated silent reading rate, vocabulary knowledge, and individual factors (i.e., reading motivation and attitudes toward reading) to be possible predictors of reading comprehension—among various language skills and abilities.

2.2. Predictors of Reading Comprehension

Reading research has indicated that better silent reading rate, vocabulary knowledge, reading motivation, and attitudes contribute to reading comprehension. In this respect, for the purposes of the study, I focus on them as the possible predictors of reading comprehension.

2.2.1. Reading comprehension and silent reading rate.

Reading comprehension is defined as "the ability to extract, interpret, and use information from a print or digital text" (Grabe & Stoller, 2018). For comprehending a text accurately, however, one should read at a certain rate since comprehension processes work effectively only when readers read fluently. Nonfluent or slow readers are not generally considered good readers (Stoller, Anderson, Grabe, & Komiyama, 2013), and good readers are not definitely the ones who read word by word performing slow reading rates. Thus, silent reading rate, which is a constituent of fluency, is one of the subsidiary constituents of reading comprehension.

Reading rate, in its simplest form, refers to the number of words that are read in a minute (word per minute = wpm). It can be measured by having readers read individual words (i.e., word reading fluency) or texts (i.e., passage reading fluency) as well as by having them read those orally (i.e., oral reading) or silently (i.e., silent reading). Measuring how many words readers can read per minute determines how rapidly or fluently they can read. For example, there are particular reading rate intervals which readers should fit in to be considered "good" readers. According to Carver (1990), L1

university students should read at around 300 words per minute (wpm) while rauding; 200 wpm while learning; and 138 wpm while memorizing (as cited in Chang, 2010, p. 287); or 600 wpm while scanning (as cited in Carver, 2000, p. 78). When L2 university students are considered, on the other hand, these reading rates are considered to be comparatively lower— ranging between 100-150 wpm (Fraser, 2007; Nation, 2005b, as cited in Chang & Millett, 2013, p. 127).

Considering these optimal reading rates, then, the learners who fall behind these optimal rates might also fall behind the other learners as well as being slow and poor readers, affecting their reading performance overall. As Anderson (2018) states, "Reading too slowly or too quickly can negatively impact reading comprehension" (p. 1). Nuttall (1996) puts forward two circles demonstrating the big gap between slow and fluent readers. She characterizes two different reader types (i.e., slow and fluent) via two different circles (i.e., vicious and victorious). The "vicious circle of the weak reader" (Nuttall, 1996, p. 167) is demonstrated in Figure 1:

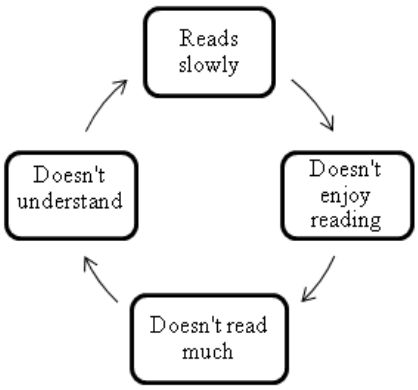


Figure 1. The "vicious cycle of the weak reader"

As Nuttall (1996) puts forth, if one reads slowly, s/he does not enjoy reading resulting in the lack of reading amount and poor comprehension. In the end, s/he continues to be a slow reader and follows this repetitive circle again and again, being a weak or incompetent reader in the end. Nuttall (1996, p. 167) names this circle as the "vicious circle". On the other hand, in the other circle that Nuttall (1996) designed (i.e., the "victorious circle"), if one reads fast, s/he reads more and comprehends better and accordingly finds pleasure in reading. This so-called "victorious circle" (Nuttall, 1996, p. 168) depicts the process of being a good reader, as indicated in Figure 2:

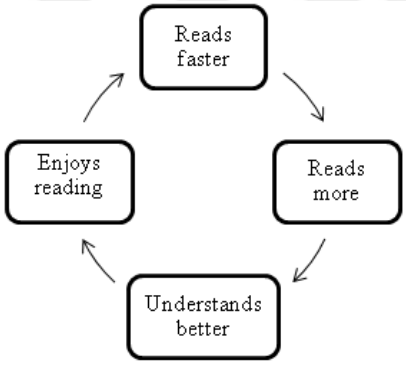


Figure 2. The "victorious cycle of the good reader"

In a nutshell, these two circles designed by Nuttall (1996) summarize the importance of fluency in reading. Based on this discussion, furthermore, the main reason for poor reading fluency can be attributed to limited exposure to print. Given these, it remains true that SSR and ARR can help promote reading rate and accordingly reading comprehension.

2.2.2. Vocabulary knowledge.

"Without grammar, very little can be conveyed, without vocabulary *nothing* can be conveyed" (Wilkins, 1972, p. 111, as cited in Thornbury, 2002, p. 13)

To know a word comprises having a command of its "form (i.e., spoken, written, and word parts), meaning (i.e., form and meaning, concept and referents, and associations), and use (i.e., grammatical functions, collocations, and constraints on use)" (Nation, 2001, p. 27). And, since "vocabulary knowledge is not an all-or-nothing phenomenon" (Laufer, 1998, p. 257) there are several things to know about a word and "there are many degrees of knowing" (Nation, 2001, p. 23).

Indeed, to know a word is a matter of having *receptive* and *productive* vocabulary knowledge that are sometimes synonymously used as passive and active vocabulary (Nation, 2001). *Receptive* mastery of vocabulary is pertinent to being able to recall, recognize, or understand when one encounters it while either reading or listening. In other words, it refers to "perceiving the form of a word while listening or reading and retrieving its meaning" (Nation, 2001, p. 25). However, *productive* mastery refers to the ability to use a word while speaking or writing, and is subdivided into *controlled* and *free* (Laufer, 1998; Laufer & Nation, 1999) productive vocabulary knowledge (as cited in Zhong, 2018). *Controlled* productive vocabulary refers to an ability to produce a word when a cue or prompt is provided whereas *free* productive vocabulary knowledge indicates the free production of a word without the presence of a cue or a prompt (Zhong, 2018, p. 358). Productive vocabulary knowledge, in other words, is defined as "wanting to express a meaning through speaking or writing and retrieving and producing the

appropriate spoken or written form" (Nation, 2001, p. 25), and is considered to be smaller than receptive vocabulary size (Meara & Fitzpatrick, 2000). However, L2 vocabulary learning is "a complex process involving not only understanding the meanings of words but also being able to retain, retrieve, and use them in production" (Hu & Nassaji, 2016, p. 28). Thus, not only receptive but also productive mastery of vocabulary is crucial. Nevertheless, whether receptive and productive vocabulary follow a developmental pattern (i.e., whether they are interdependent constructs) or should be placed on a continuum (i.e., whether they are independent constructs) has not been agreed upon (Laufer & Goldstein, 2004, as cited in Pignot-Shahov, 2012, p. 38). According to the supporters who view these two types of vocabulary knowledge dichotomously, vocabulary learning follows a path from receptive to productive knowledge (Laufer, 1998) whereas for some others they comprise different dimensions of knowing and thus be handled separately (Pignot-Shahov, 2012). According to them, receptive and productive vocabulary knowledge represent distinct associational knowledge in the mental lexicon (Meara, 1997, as cited in Pignot-Shahov, 2012, p. 38).

Still, overall, vocabulary knowledge is essential for mastering languages (Schmitt, 2010), for "Without grammar very little can be conveyed, without vocabulary *nothing* can be conveyed" (Wilkins, 1972, p. 111, as cited in Thornbury, 2002, p. 13, emphasis in original). Vocabulary knowledge is also among the strong predictors of reading comprehension (Alderson & Urquhart, 1985; Koda, 2005; Landi, 2010; Qian, 2002). In fact, the reciprocal relationship between vocabulary knowledge and reading comprehension (Eskey, 2005) has been demonstrated by L1 reading research (Stahl, 1990, as cited in Nation, 2001, p. 144), and readers should know at around 95-98% of the

vocabulary in a text in order to comprehend it (Hu & Nation, 2000; Laufer, 1989). In a similar vein, the more one reads, it is more likely that s/he will enlarge her/his vocabulary size. According to this reciprocal and bidirectional relationship (Nation, 2001), "vocabulary knowledge can help reading, and reading can contribute to vocabulary growth" (Nation, 2001, p. 144)- a situation which is referred to as "a classic chicken and egg situation" (Eskey, 2005, p. 567). Besides, "The more words a reader knows, the better the comprehension" (Perfetti, 2001, p. 12802). However, having a particular amount of vocabulary is also essential for L2 reading. For example, Laufer (1992) states that a reader should know at least the most frequent 3,000 word families to comprehend unsimplified texts whereas knowing 5,000 word families is necessary for reading unsimplified texts for pleasure, according to Hirsh and Nation (1992) (as cited in Webb, 2008, p. 80).

Readers can improve their vocabulary both incidentally or intentionally. The latter refers to learning vocabulary by a specific "intention". For example, preparing flashcards, writing sentences with the target words, or keeping vocabulary notebooks are examples of intentional vocabulary learning. Incidental vocabulary learning, on the other hand, pertains to "learning which accrues as a by-product of language use, without the intended purpose of learning a particular linguistic feature" (Schmitt, 2010, p. 29). Incidental vocabulary learning is more likely to take place in L1 acquisition (Liu & Todd, 2014), and it rarely happens in L2 settings due to minimum exposure to L2 input. And even if L2 learners are exposed to large amounts of input, the incidental vocabulary gains from reading are limited (Liu & Todd, 2014). Citing Horst, Cobb, and Maera (1998), they

stated that L2 learners incidentally learned only five words after a reading experience of 21,000 words.

Indeed, there are three criteria for incidental vocabulary learning: basic word knowledge, coverage, and frequency (Lee & Mallinder, 2017, p. 150). *First of all*, readers should have basic vocabulary knowledge in order to be able to read and thus take advantage of incidental vocabulary learning. *Secondly*, the texts learners read should be at an appropriate level. *Lastly*, they should encounter the words multiple times. However, there is no agreement upon the optimum number of exposures for a learner to learn a word (Loewen, 2015): Whereas some state that a learner should meet a word about six (Saragi, Nation & Meister, 1978), eight to twelve (Horst, Cobb, & Meara, 1998), or twenty (Herman et al., 1987) times, some suggest that two or three encounters would suffice (as cited in Loewen, 2015, p. 99). Overall, Nation and Meara (2010, p. 38) explain how L2 incidental vocabulary learning takes place among non-native speakers, by focusing on the following three conditions:

> First, the unknown vocabulary should make up only a very small proportion of the tokens, preferably around 2 per cent, which would mean one unknown word in fifty (Hu and Nation, 2000). Second, there needs to be a very large quantity of input, preferably one million tokens or more per year. Third, learning will be increased if there is more deliberate attention to the unknown vocabulary through the occurrence of the same vocabulary in the deliberate learning strand of the course. It also helps to make learners aware of new words by glossing them

> (Watanabe, 1997), highlighting them in the text and by using dictionaries. (p. 38)

Apart from these, the intensity of instruction (i.e., time distribution) might also be another effective factor in incidental vocabulary learning. For example, Serrano and Huang (2018) put forward that "when practice is concentrated, it contributes to greater vocabulary learning in the short term" (p. 19).

Given all these, it would not be realistic to think that all these words a reader should know can be taught or learned in the classroom environment in an explicit way (Serrano & Huang, 2018). However, this should not mean that explicit vocabulary instruction is ineffective since it is, in fact, an effective way to teach vocabulary; however, considering the vast majority of words that an L2 learner has to learn, vocabulary learning can take place incidentally as well. Considering these, maximizing the opportunities for meaning-focused input might be effective for enhancing incidental vocabulary learning, and reading is one way to learn vocabulary. Thus, alternative reading instructions such as SSR and ARR might also help learners promote their vocabulary knowledge.

2.2.3. Individual factors.

2.2.3.1. Motivation for reading.

"(...) motivation, along with cognition, is crucial to reading"

(Wigfield & Guthrie, 1997, p. 57)

Motivation, put simply, is responsible for "*why* people decide to do something, *how long* they are willing to sustain the activity, *how hard* they are going to pursue it" (Dörnyei & Ushioda, 2013, p. 4, emphasis in original). However, researching the effects of motivational factors on language learning became prominent only after the second half of the twentieth century (Gardner & Lambert, 1959, 1972). On the contrary to the earlier state of mind which associated language learning solely with cognitive abilities including intelligence, aptitude, and one's verbal abilities, there is currently wide agreement that motivation plays a significant role in the process of language learning.

Motivation for language learning refers to "the effort which learners put into learning an L2 as a result of their need or desire to learn it" (Tavakoli, 2012, p. 232), and this effort or behaviour might be driven by *internal* or *external* factors, by two well-known motivational constructs known as *intrinsic* and *extrinsic* motivation. Whereas intrinsic motivation concerns "being motivated and curious to do an activity for its own sake", extrinsic motivation pertains to "being motivated in an activity as a means to an end, such as receiving a reward or because someone tells you to do the activity" (Wigfield, 1997, p. 61). And learners might learn languages by demonstrating these two types of motivation.

While recognizing that learners who have language learning motivation —both intrinsic and extrinsic— also display *effort* and *desire* (Gardner, 2001, p. 13), learners who have reading motivation, in a similar vein, make an *effort* and they *desire* to read. Reading motivation, therefore, different than language learning motivation, pertains to the type of motivation and value learners place upon reading in particular. Since reading was generally considered as a cognitive activity and therefore was viewed and studied

from a cognitive perspective by educational psychologists in the past (Wigfield & Guthrie, 1997), affective factors such as motivation were long overlooked in the field of reading. Nevertheless, it is now known that reading motivation is a critical factor in successful reading since it determines how much and how frequently learners engage in reading, which, in turn, affect their reading competence.

When the literature is reviewed, one can see that motivation in reading development has thoroughly been investigated by first-language (L1) researchers; thus, much of what is known in L2 reading came from L1 reading motivation theory and research. Earlier research on reading motivation in the L1 domain has indicated that there seems to be a general agreement that motivation is positively related with reading achievement (Baker & Wigfield, 1999; Wang & Guthrie, 2004), and between motivation and reading comprehension (Guthrie, Wigfield, Metsala, & Cox, 1999). However, both in first-language (L1) and second-language (L2) domains, reading motivation is considered to be an effective factor in reading amount (Cox & Guthrie, 2001); i.e., the more motivated one is, the more s/he reads. Taking into account the fact that motivated readers read more, the amount of reading is considered to affect the reading skills in a positive way. As also illustrated in Nuttall's (1996, pp. 167-168) *victorious* and *vicious* cycles of reading, motivation affects the reading amount. For example, the individuals who do not enjoy reading do not read much and thus do not understand much (and they enter the vicious circle). On the other hand, the individuals who read more understand more, and therefore enjoy reading (enter the victorious circle). Enjoying or not enjoying reading, therefore, affects the motivation of learners.

Speaking practically, motivating learners/students to read more is a challenging as well as a demanding task. Moreover, learners in foreign language classrooms might have different motivations, yet they also bring different attitudes toward L2 reading as well (Grabe & Stoller, 2011), and being motivated to read more also affects one's attitudes toward reading. Thus, the other individual factor that is considered to predict effective reading abilities is the attitude toward reading, which is discussed in the following section.

2.2.3.2. Attitudes toward reading.

Knowing learners' attitudes toward reading is considered to be a decisive factor in their involvement in L2 reading, for "the emotional response to reading [...] is the primary reason most readers read, and probably the primary reason most nonreaders do not read" (Smith, 1988, p. 177, as cited in McKenna & Kear, 1990, p. 626).

An attitude can be defined as "the evaluation of an object, concept, or behavior along a dimension of favor or disfavor, good or bad, like or dislike" (Fishbein & Ajzen, 2015, p. 78), and it is the attitude which explains, predicts, and even changes behaviours (Fishbein & Ajzen, 2015). Thus, having positive or negative attitudes plays a key role in language learning as well. As Tavakoli (2012) notes, "Second language learners benefit from positive attitudes and that negative attitudes may lead to decreased motivation and, in all likelihood, because of decreased input and interaction, to unsuccessful attainment of proficiency." (Tavakoli, 2012, p. 30). Besides unsuccessful attainment of proficiency, the attitudes of L2 learners might affect "their perceptions of how well L2 readers can perform tasks, and lead to students self-perceptions of how successful they are as students

(and readers)" (Grabe & Stoller, 2011, p. 49). These, in turn, might then affect learners' "self-esteem, emotional responses to reading, interest in reading and willingness to persist" (p. 49). All these are considered to affect the amount of reading, which consequently affect reading comprehension. That is, having positive or negative attitudes toward reading is likely to have a direct effect on reading comprehension. Those with positive attitudes demonstrate better comprehension skills than those with negative attitudes because language learners having positive attitudes are likely to read more, and the reading amount is known to correlate positively with reading competence.

Among others, one factor affecting students' attitudes toward L2 reading is their attitudes toward L1 reading (Day & Bamford, 2010). That is, if a student holds positive attitudes toward reading in her/his mother tongue, then it is probable that s/he would also develop positive attitudes toward L2 reading whereas the students with negative attitudes would not be expected to come to the class with positive attitudes toward reading (Day & Bamford, 2010).

Instructional approaches such as SSR or ARR might foster students' motivation to read and enhance their attitudes toward reading, which in turn lead to increases in their reading amount since motivated learners read more and have more positive attitudes.

2.3. Chapter Summary

In this chapter, based on the analysis of literature in the field, a possible definition of reading comprehension and possible predictors of reading comprehension (i.e., silent reading rate, vocabulary knowledge, motivation and attitudes as individual factors) were presented. And, the next chapter will discuss sustained silent reading (SSR) and assisted

repeated reading (ARR) as two possible treatments to develop and to improve L2 readers' reading abilities within the framework of this study. Moreover, the next chapter will also present a detailed review of literature on SSR and ARR regarding the possible predictors of reading comprehension.

CHAPTER III

REVIEW OF LITERATURE

3.0. Introduction

This chapter is separated into two major sections: In the first section, brief information about (a) Extensive Reading (ER), (b) Sustained Silent Reading (SSR), (c) Repeated Reading (RR), and (d) Assisted Repeated Reading (ARR) is provided. In the second section, the review of literature for the present study is presented. Specifically speaking, possible effects of SSR and ARR on the possible predictors of reading comprehension which dwell upon silent reading rate, vocabulary knowledge and upon individual factors (i.e., reading motivation and attitudes toward reading) are discussed in relation to the review of research in L2 settings.

3.1. Extensive Reading

"The best way to improve one's knowledge of a foreign language is to go and live among its speakers. The next best way is to read extensively in it."

(Nuttall, 1982, p.168)

Language learning, and/or acquisition, is a process during which learners have exposure to comprehensible language input, and one of the ways to acquire the input is reading (Krashen, 1989; Krashen & Terrell, 1983; Tudor & Hafiz, 1989). Obviously, extensive reading (ER) is a rich source of input, particularly in input-poor foreign language learning settings where learners have minimum exposure to target language (i.e. L2) since it features reading large amounts/ quantities of reading materials within learners' linguistics competence by helping them get pleasure from what they read (Grabe & Stoller, 2011; Yamashita, 2015).

ER has its origins in L1 reading context, and Harold Palmer (1917) is generally credited with being the first person to use the term *extensive reading*. He along with Michael West, in the 1920s, are considered as the pioneers of ER as an approach for teaching foreign languages (as cited in Bamford & Day, 1997). Thenceforward, ER has been practiced in several different contexts with several different names in the field, including *free voluntary reading* (FRV) (Krashen, 1993), *pleasure reading* (Beglar, Hunt, & Kite, 2012), *book flood* (Elley, 1991; Elley & Mangubhai, 1981a, 1981b, 1983), *independent reading*, *recreational reading*, and *Drop Everything and Read (DEAR)* (Yamashita, 2015, p. 168). Nevertheless, while the terms might vary, their basic principles center around reading self-selected large quantities of materials to help promote reading and language development.

3.1.1. Extensive Reading practices.

Extensive reading (ER) might come to the fore in a wide variety of forms. In fact, ER programs might be implemented either independently or integrated into the existing

curricula, and four broad ways are often posited for its integration: "(1) as a separate, stand-alone course, (2) as part of an existing reading course, (3) as a noncredit addition to an existing course, and (4) as an extracurricular activity" (Day & Bamford, 2010, p. 41).

If the students already have the reading habit, ER as an extracurricular activity might yield positive outcomes; nonetheless, for the students who do not have an already-existing reading habit, a better way might be embedding ER into the existing curriculum and making it a part of the classroom and learning environment, and this is often done via sustained silent reading instruction. Particularly in EFL contexts, although students need to read a lot to improve their L2 reading abilities, it is generally difficult to assign them ER. Sustained silent reading (SSR), as an in-class extensive reading practice, can thus be a more viable means of engaging students in reading large amounts of extended texts. As one form of and an effective alternative to ER, SSR is discussed in the next section.

3.2. Sustained Silent Reading as an Extensive Reading Approach

Introduced by Dr. Lyman C. Hunt in the 1960s (as cited in McCracken, 1971, p. 521), Sustained Silent Reading (SSR) gained prominence as an instructional approach in the following years as a form of ER. SSR can simply be described as an approach which comprises "a set time each day when every pupil and the teacher read silently for a substantial period of time without interruption" (R. A. McCracken & M. J. McCracken, 1978, p. 406). It can also be defined as "a form of school-based recreational reading" (Quinn, 2017, p. 3) or as "in-school reading" (Krashen & Mason, 2017, p. 70), for during the implementation of SSR, students are provided a certain time period to silently read the materials which they self-select in the school or classroom environment (Yoon, 2002).

The basic premises of SSR are set forth as follow: "*(1) Each student must read silently, (2) The teacher reads., (3) Each student selects a single book., (4) A timer is used., (5) There are absolutely no reports or records of any kind., (6) Begin with whole classes or larger groups of students heterogeneously grouped.*" (McCracken, 1971, p. 521). To put it succinctly, SSR is a particular form of ER taking place in the classroom environment for a certain period of time on a regular basis, in which a greater involvement of the teacher—both as a reader and a guide—is included. Unlike ER which does not necessarily have to take place in the classroom environment, SSR instruction is an in-class reading practice.

On the other hand, likewise ER, the literature on SSR has its roots back to the first language (L1) domain. The review of the literature indicates that the majority of studies on SSR in the literature were mostly conducted in K-12 schools with native English speakers, in particular with American elementary and middle/ secondary school students (e.g., Gray, 2012; Williams, 2011) or with high school students (e.g., Meyers, 1998) in the L1 domain. Those studies mostly investigated the effect of SSR on students' motivation to read (e.g., Williams, 2011), reading attitude (e.g., Dwyer & Reed, 1989), reading comprehension and their achievement.

However, the use of SSR instruction in L2 settings is rather limited and the literature mostly comprises descriptive articles on SSR (e.g., Chow & Chou, 2000; McCracken, 1971; Pilgreen, 2000), in which they prescribe *how to* do sustained silent reading rather than *what happens* during or *as a result of* SSR since most of them base their arguments on the data from L1 settings. Articles reporting empirical data from second language (L2) settings, however, are relatively scarce, and those available studies

in L2 contexts are rather limited to primary (e.g., Elley & Mangubhai, 1981a) and high school students (e.g., Pilgreen & Krashen, 1993) in ESL contexts. In the EFL domain, on the other hand, comparatively less is known about the use of SSR. Overall, SSR has prevailed as an effective practice both in L1 and L2 reading classrooms for nearly over five decades since its introduction by Lyman Hunt in the 1960s (e.g., Elley & Mangubhai, 1981a, 1983; Fujita & Noro, 2009; Matsui & Noro, 2010; Pilgreen & Krashen, 1993), and research, as mentioned previously, has demonstrated that it contributes to reading ability and other areas of language. As Grabe (1991) notes, SSR helps "build fluency (automaticity), confidence, and appreciation of reading" (p. 396). Moreover, pleasure reading activities such as SSR help learners think that "reading is an oasis, rather than a burden" (Lin, Choo, & Pandian, 2012, p. 267).

The studies on the effects of SSR are discussed in the following sections in a more detailed way, in consideration of the predictors of reading comprehension.

3.2.1. Studies on possible effects of SSR.

3.2.1.1. SSR studies on comprehension and rate in L2 settings.

When the literature is reviewed in relation to possible effects of SSR, it can be seen that several studies have sought to investigate reading comprehension and rate, comprising both the ones conducted in English as a second language (ESL) and those conducted in English as a foreign language (EFL) contexts.

When the SSR studies in ESL contexts are reviewed, it can be seen that SSR helps improve reading comprehension among primary school (e.g., Elley & Mangubhai, 1981a,

1981b) and high school (e.g., Pilgreen & Krashen, 1993) students. In the literature, Elley and Mangubhai's (1981a) preliminary study with young learners serves as a model for Sustained Silent Reading research. They implemented a "Book flood" programme in twelve different Fiji primary schools. The participants were primary school students (Grade 4 and 5) studying in 16 different schools located in rural areas of Fiji, who were learning English as a second language. The participants were encouraged to read the books every day and two different methods were followed by the teachers: "Shared Book Experience" (*n* = 186) and "Sustained Silent Reading" method (*n* = 194), accompanied by control groups (*n* = 234) (Elley & Mangubhai, 1981b, p. 15). The students in the SSR participants read self-selected books for 20-30 minutes every day whereas the control group participants carried on with their regular English instruction. The program lasted for about eight and a half month and the results of the book flood program were highly positive when compared to control groups in various areas of language. There were considerable gains in terms of reading comprehension, and the researchers stated that the experimental group participants "showed twice the expected level of progress in reading comprehension" (p. 15). Nevertheless, it is worth noting that how much the experimental group participants read was not reported, which makes the interpretation of the results difficult. The authors also wanted to investigate the long-term effects of the intervention and conducted a follow-up study (Elley & Mangubhai, 1981b). The same students who had moved to Grade 5 and 6 continued the program for the second year. Elley and Mangubhai reported that "improvements continued" (p. 22).

In another study in an ESL context, but with university students, Petrimoulx (1988) investigated the effect of SSR on reading comprehension. Sixteen foreign ESL

university students participated in the study, who were split into one experimental and two control groups. The students in the experimental group engaged in SSR for ten minutes daily for a 15-week period. Pre and post-reading comprehension test results indicated that the SSR group received higher reading comprehension scores when compared to the control groups despite the fact that the differences were not statistically significant. Nevertheless, the SSR group increased their amount of reading.

Another study in an ESL context was carried out by Pilgreen and Krashen (1993), in which they implemented a 16-week SSR program. To this end, high school ESL students (*N* = 125) (from grades 10-12) engaged in SSR for twelve to fifteen minutes a day. The Stanford Diagnostic Reading Comprehension Test results demonstrated reading comprehension gains made by SSR group. However, these results can be considered suggestive as the study lacked a comparison group. Moreover, it must be noted that the SSR participants were encouraged to continue reading at home; that is, their reading was not limited to 12-15 minute-long SSR sessions conducted in the classroom environment.

On the contrary to the studies in the ESL domain, studies on SSR were mostly conducted in high schools and university contexts in the EFL domain. SSR and its effect on comprehension and silent reading rate were reported in earlier studies both with high school (e.g., Fujita & Noro, 2009; Matsui & Noro, 2010) and university level (e.g., Ducy-Perez, 1991; Masoumi & Sadeghoghli, 2017; Sims, 1996; Suk, 2015, 2016) students. The first SSR study in the EFL context was conducted by Ducy-Perez (1991) at a university in the Dominican EFL context. The researcher investigated whether SSR which was incorporated into regular class time contributed to the reading comprehension skills of university students in a 10-week SSR program. Divided into experimental and control

groups, the participants (*N* = 186) were EFL students enrolled in the English for Academic Purposes program and were beginning and intermediate students. The experimental groups engaged in SSR for 30 minutes (one-fifth of regular class time) each week, and read journal articles from their fields such as psychology and computer programming whereas the control groups followed their regular course syllabus. Newbury House TOEFL Preparation Course reading comprehension exams administered both as pre and post-tests indicated a very slight reading comprehension loss among SSR students, yet it did not elicit a statistically significant difference. Nevertheless, it is worth noting that although the participants were beginning and intermediate level learners, their comprehension was measured by a TOEFL test. The researcher also indicated that using more sensitive reading comprehension tests or carrying out longitudinal studies might have provided different results.

In another EFL setting, Sims (1996) similarly indicated the effects of SSR on reading comprehension. The participants, Taiwanese university-level EFL learners (freshman students), were split into two groups as SSR and skill-based instruction. SSR participants engaged in one-hour-of SSR per week and were allowed to read outside of class as well. Sims reported that the experimental group who engaged in SSR scored "significantly higher" (p. 74) on reading comprehension when compared to the control group who were taught by skill-based instruction.

In the Japanese EFL context, Fujita and Noro (2009) implemented an SSR program with seventy-six Japanese high school EFL learners for a 10-week treatment period. In their study which included only one experimental group, the participants read graded readers (GRs) for the first 10-minute of the class time, and they read a mean of

2,517 words throughout the treatment. The EPER (Edinburgh Project on Extensive Reading) test, which was used for measuring reading speed and comprehension, was administered before and after the treatment. The results indicated that the participants made significant gains in their reading speed whereas they slightly increased their reading comprehension scores. Nevertheless, there was not a control group; therefore, these results are not comparable.

Another study, yet one which included a control group, was conducted by Matsui and Noro (2010) a year later, who similarly investigated the effects of SSR on reading comprehension and fluency of Japanese EFL learners. This time, a hundred and twenty-two high school students were divided into two groups for the purposes of the study; into experimental (n = 60) and control (n = 62) groups. The former group engaged in 10-minute SSR implemented for once a week for one-school-year (included 39 sessions), where they read an average of 18,907 words throughout this time. The findings indicated that the SSR group made greater and significant gains in terms of their reading comprehension and fluency performance.

A recent quasi-experimental study by Suk (2015, 2016) also indicated that the university-level Korean EFL learners (N = 171) who engaged in 30-minute SSR per week outperformed the traditional reading group in terms of their reading comprehension. On the other hand, both groups improved their silent reading rate, yet the SSR group made larger gains when compared to the control group. During the 15-week treatment, the SSR group read graded readers for 30-minutes in the class whereas the control groups received traditional reading instruction, yet the SSR group were also encouraged to read outside of the class by setting word count goals weekly. Nevertheless, it is also worth noting that the

conditions for SSR were violated since the participants took tests regarding the books they read under time considerations, which might have affected the results.

Likewise, an experimental study by Masoumi and Sadeghoghli (2017) illustrated that university-level Iranian EFL learners (*N* = 60) improved their reading comprehension. In their 24-session-long study (each lasting for a ninety-minute period), the participants were divided into an experimental and a control group randomly: Those in the experimental group engaged in sustained silent reading for 30-minutes whereas those in the control group received a placebo for a semester. Although the details regarding the instructional or experimental procedure are not explicitly given (e.g., what the placebo treatment included, the materials the experimental group participants read, et cetera), findings—after 24 sessions—indicated that SSR helped participants "reinforce and enhance [...] reading comprehension" (p. 279).

From data in L2 contexts, it can be considered that SSR helps enhance reading comprehension and silent reading rate although some studies reported slight improvements. The next section discusses the effects of SSR on vocabulary.

3.2.1.2. SSR studies on vocabulary in L2 settings.

With respect to the effect on vocabulary knowledge, the SSR studies in ESL contexts are rather scant, yet there is some empirical data regarding the fact that SSR also contributes to vocabulary knowledge. The literature on EFL studies, on the other hand, encompasses more empirical data (Day, Omura, & Hiramatsu, 1991; Hsu & Lee, 2005, 2009; Lee, 2005, 2006; Lee & Hsu, 2007; Suk, 2015, 2016).

One of the preliminary studies in the EFL domain was conducted by Day, Omura, and Hiramatsu (1991) in the Japanese EFL context. They investigated the effects of an SSR program on Japanese EFL learners' (191 high school, 397 university students) incidental vocabulary acquisition, who were randomly assigned to experimental and control groups. Whereas the experimental group read a short story which was followed by a vocabulary test that they had to take after submitting the short stories back, the control groups were only given the vocabulary test, without any reading prior to that. The vocabulary test was developed by the authors and included 17 items with 5 options per item (1 key, 3 distractors, 1 "I don't know"). The findings obtained from t-test analyses demonstrated that the experimental groups—both high school and university students—outperformed the control groups on the test. Even though a detailed explanation of the procedure the researchers followed is missing, they concluded that SSR had an effect on participants' incidental vocabulary acquisition.

In another study, Lee (2005) implemented an SSR program in the Taiwanese EFL context with freshman university students, in which they engaged in self-selected reading for about one and a half hour per week during a-year-long SSR treatment. Their vocabulary knowledge was measured via a vocabulary levels test (comprising 2K, 3K, 5K, 10K level words and academic vocabulary). As illustrated by the results, the gains made by the SSR group were higher than those made by the control groups regarding their vocabulary knowledge, yet there was a slight difference between these two groups at the post-test. However, Lee stated that this gain might also be attributed to the length of the treatment: By referring to Hsu and Lee's (2005) study, he noted that "one semester of

self-selected reading of graded readers results in about the same gains in vocabulary and reading as traditional instruction" (p. 11).

In a follow-up study, Lee (2006) explored the effect of SSR on vocabulary knowledge by implementing a year-long SSR study with university-level Taiwanese EFL learners. The participants, divided into an experimental and a control group, engaged in SSR by devoting approximately one and a half hour per week. The results of the vocabulary tests administered as pre and posttests illustrated that SSR group participants made better and significant gains than those in the control group in each vocabulary band (2K, 3K, 5K, 10K, Academic) in the vocabulary test.

By extending two earlier studies conducted for a semester (Hsu & Lee, 2005) and for one academic year (Lee & Hsu, 2007), Hsu and Lee (2009) implemented a three-year-long in-class SSR instruction with Taiwanese EFL college students and investigated its effect on vocabulary knowledge, where participants' vocabulary knowledge was measured via several different vocabulary level tests (Nation's, Huang's, and Schmitt's VLTs). They reported that after the first year, the participants performed better than the control group on the vocabulary test, yet they also stated that they might have obtained these results because of the Hawthorne Effect, which they define as "the enthusiasm students experience for a new approach" (Hsu & Lee, 2009, p. 23). During the next two years of the study, however, the experimental SSR group did not demonstrate gains but also regressed a little on vocabulary knowledge. The researchers purport that this retrogress might be due to the reading amount since the participants read less and less due to some personal factors (e.g., working part time) which prevented them from reading.

More recently in a quasi-experimental study, Suk (2015, 2016) investigated the effects of a 15-week-long integrated reading instruction (SSR supported with out-of-class reading) on a hundred and seventy-one Korean university-level EFL learners' L2 vocabulary knowledge. The experimental groups engaged in 30-minute SSR per week and read graded readers, being encouraged to read outside-of-class as well. The control groups, on the other hand, received intensive reading instruction only. Suk (2016) found out that the experimental group participants improved their vocabulary significantly: They made greater gains (from 51.63 to 64.70) in the vocabulary test scores when compared to the intensive reading groups (from 54.22 to 57.63). Nevertheless, an important issue arises here since the items in the vocabulary test had been selected from the graded readers that the experimental groups read in the program; the researcher developed the vocabulary test based on the graded readers which were not obtainable for the intensive reading groups. The greater gains made by the experimental groups, therefore, can be attributed to the nature of the vocabulary test to some extent, rather than the effectiveness of the instruction in improving the vocabulary knowledge.

Overall, the fact that SSR contributes to vocabulary knowledge has been reported in several studies; however, the results of some of these studies which reveal the effectiveness of SSR on vocabulary knowledge (e.g., Hsu & Lee, 2009; Lee, 2006; Suk, 2015, 2016) should be interpreted very carefully by taking into consideration the intensity of the instruction provided in those programs and its time distribution (intersession intervals). As indicated in the field of cognitive and developmental psychology, time distribution might have an effect on learning and retention although it is difficult to reach an agreement regarding the optimum time intervals. That is, whether intensive instruction

provided in a limited time with short time intervals or long sessions in a distributed period of time having long time intervals contributes to learning and retention is a matter of question (Serrano & Huang, 2018). From such a perspective, the SSR studies reporting affirmative results for vocabulary learning should be examined in depth. For example, Day, Omura, and Hiramatsu's study (1991) was a one-shot study in which the participants took a vocabulary test having read a short story. In Lee's (2005) one-academic-year-long study, how much reading time or intersession time intervals were not reported. Another study by the same author (Lee, 2006), on the other hand, included approximately one and a half hour reading time (i.e., half of weekly class time) distributed into one year. Thus, while interpreting and comparing the results, all these factors should also be taken into consideration.

3.2.1.3. SSR studies on reading motivation and attitudes toward reading in L2 settings.

Research on SSR in L2 settings indicates that SSR promotes reading motivation and helps hold more positive attitudes toward reading. Also, research shows those who participate in SSR read more than those who do not (e.g., Pilgreen & Krashen, 1993; Wiesendanger & Bader, 1989; Wiesendanger & Birlem, 1984). One of the earlier studies was conducted by Pilgreen and Krashen (1993), who designed a 16-week SSR program with high school EFL learners. The results demonstrated the benefits of SSR on reading comprehension, reading enjoyment, and reading frequency. The findings indicated that the participants enjoyed SSR, engaged in more reading, and enjoyed leisure reading more after participating in the program.

Similarly, Mason and Krashen (1997) indicated that “many of the once reluctant students...became eager readers” (p. 93). The participants were Japanese EFL university students who had failed English the previous semester (Sai Rishu-retakers class). The researchers replaced traditional L2 reading instruction and implemented a semester-long SSR program. The experimental group received SSR treatment sessions which were held weekly for 90-minutes, and they read an average of 30 graded readers both in and outside the class. The results indicated a considerable improvement in the SSR participants’ attitudes on the contrary to the control group who had traditional reading instruction. Nevertheless, the details regarding the instructional procedure for the control group (for example, the materials they read) were not explained. Besides, some conditions of SSR were not met: For example, the students had incentives regarding since the program was a part of their course credit and grades, and they were held accountable for their reading. The researchers stated that despite having departed from SSR in some aspects, the SSR treatment helped the participants have positive attitudes toward reading.

Atay (2004) similarly reported the positive effects of SSR on attitudes toward reading. Intermediate-level Turkish EFL learners (N = 42) enrolled in the English Preparatory School in a state university in Istanbul, Turkey participated in the study. They were split into a control group and an experimental group who were taught by the same instructor. However, in addition to the instruction that both groups received, the experimental group received SSR treatment extra, where they read their self-selected materials at the beginning of each class (four days a week) for 15 minutes over a six-week period. The control group, however, did extensive reading on their own during the same time period (i.e., for a six-week period). In the study, the data came from an attitude

questionnaire and interviews. The analysis of pre and post-test results showed that "both groups valued reading as an important practice in language learning" (p. 24), yet the experimental and the control group differed significantly "in terms of their anxiety, comfort and self-perception towards reading" (p. 24), which were in favor of the SSR group.

With high school Japanese EFL learners, Matsui and Noro (2010) implemented an SSR instruction where the participants (*N* = 122) read for the first 10-minutes of class time once a week during a school year. They read different materials including picture books, graded readers, and leveled readers (from 300 to 1000 headwords), and read a mean of 18,907 words. There was also a control group. The motivation questionnaire results indicated improvements in the SSR group's intrinsic motivation to read in English, having the joy of reading, and promoting a positive attitude toward reading. However, the questionnaire was administered only as a post-test; thus, their motivation before the SSR treatment was not known. Besides, there were some participants who experienced anxiety or who did not enjoy reading by holding negative attitudes toward reading in English.

In another study, Lin, Choo, and Pandian (2012) looked into the effects of an SSR program in relation to attitudes and motivation. Malaysian freshman undergraduate university students (*N* = 123) participated in the study. For a seven-week time period, they engaged in SSR for 20-minutes once a week. The results illustrated that the majority of the participants stated they would like to experience more SSR sessions in the class. They were also motivated to read more, indicating that they had positive attitudes

towards SSR. The authors stated that, most importantly, the participants had “the motivation to continue reading” (p. 270).

In another study, Mermelstein (2014) investigated the effect of SSR in the Taiwanese EFL context. The participants were 87 mixed-ability freshman students at a university, who were randomly divided into a control (n = 41) and a treatment (n = 44) group. On the contrary to the control group, the experimental group participants engaged in SSR once a week (for about 15-20 minutes) for a 12-week period. The researcher supported the SSR by outside class reading; that is, the students were permitted and encouraged to read outside of the class in addition to in-class reading. Overall, the experimental group participants read two graded readers during the treatment period. The results indicated that although the researcher had told them to read for 15 minutes out of the class, the time that learners spent reading on their own outside of class was longer—which might suggest that the participants were motivated to read more.

A year-long study was conducted by Sakurai (2014), who explored the effects of SSR on university-level Japanese EFL learners (N = 37) at the intermediate level, focusing on the differences between SSR and ER as homework. The participants read leveled readers (LRs) during the first 10-minutes of class time twice a week whereas they were assigned to read graded readers outside the class. On average, they read 173,701 words—both in and outside of the class. The questionnaire results indicated they had more positive attitudes toward SSR rather than toward ER since ER was assigned as homework, resulting in participants feeling more pressure. Also, the materials read during SSR (LRs) were more motivating when compared to those read during ER (GRs) outside the class since LRs were full of good and effective illustrations. The participants took

quizzes on M-reader, an online platform comprising quizzes about a wide range of books. They took online quizzes regarding the books they read outside the class, being held accountable for their reading. In addition, it is worth noting that both in and outside class reading amount affected their final course grades, and this might have affected the results as well. Moreover, a reading goal was set for them, which again might have influenced their attitudes as some felt pressure. Besides these limitations, the lack of a control group also makes it difficult to attribute the positive changes in attitude only to the treatment.

A recent SSR study conducted by Hwang (2018) also demonstrated that SSR contributes to the L2 reading attitudes of Korean EFL university students. A hundred and eight freshman students taking a compulsory English course participated in the study, where they were divided into an experimental (SSR) and a control group. The experimental group received eight SSR sessions integrated into their course. The data which came from an attitude survey and interviews indicated that their comfort increased whereas their anxiety towards reading in a foreign language decreased. On the other hand, they also reported several negative opinions about the treatment. For example, some participants experienced some difficulties in understanding what they read or some were not sure of themselves regarding their comprehension level. The attitudes of the control group toward L2 reading, on the other hand, did not show a difference.

Overall, the literature on SSR in EFL contexts indicates that SSR oftentimes contributes to positive attitudes toward reading.

3.2.2. Weaknesses of SSR studies and gaps in the literature.

Results of these SSR studies are difficult to generalize due to several weaknesses, which are presented in depth below.

Studies on SSR in the EFL domain, though limited in number, were mostly conducted in high schools and university contexts, the majority of which have provided affirmative results. However, these SSR studies also have several methodological and practical weaknesses, which include (a) limited variety of contexts in which the studies were conducted; (b) lack of details regarding the reading amount and time; (c) short reading times; and (d) methodological problems which center upon the lack of a control group and the use of pre and posttests that are uneven in difficulty.

a) First of all, as pointed out earlier, data on SSR in EFL contexts are rather limited. Majority of SSR studies have focused on first language (L1) settings with monolingual native speakers of English (mostly primary school students) (e.g., Dwyer & Reed, 1989; Gray, 2012; Williams, 2011). In fact, studies in different EFL contexts such as the Turkish EFL context, which would enrich the literature are necessary. To the best of the researcher's knowledge, there are only two SSR studies (Atay, 2004; Savasci & Akyel, 2018) in the Turkish university-level EFL context. Moreover and most importantly, a limited number of studies is available regarding the implementation of SSR with university-level EFL learners (e.g., Suk, 2015, 2016) since such studies with university level students employ mostly ER programs and integrate it as an extracurricular reading activity rather than SSR programs. Therefore, more empirical investigation regarding the effect of SSR is warranted both in different EFL and in university settings.

b) Secondly, some of the earlier studies did not report the instructional procedures (for example, details about the reading activity the students engaged), and some of the instructional procedures were not well-controlled or identical across studies. For example, in several earlier studies (e.g., Elley & Mangubhai, 1981a), how much the participants read—the exact reading amounts—was not reported. In some SSR studies (e.g., Elley & Mangubhai, 1983), although reading was done in the classroom environment, the researchers did not report the reading amounts, which is considered to complicate the interpretation of the findings. In some other SSR studies (e.g., Mermelstein, 2014; Pilgreen & Krashen, 1993; Sims, 1996; Suk, 2015, 2016), the experimental group participants were encouraged to continue reading outside the class whereas they did not provide anything to the control groups. Besides, some earlier practices of SSR might report the results of single SSR experiences (e.g., Cho & Krashen, 2001; Day, Omura, & Hiramatsu, 1991).

c) Another widely-acknowledged weakness is that the participants read different kinds of materials. For example, in some, they read non-simplified authentic reading materials written for native speakers of English (e.g., Elley & Mangubhai, 1983; Robb & Susser, 1989). However, among the premises SSR approaches lie reading materials within one's linguistic competence. Given that these participants were EFL learners and read authentic materials, whether they comprehended what they read and thus the results of those SSR practices are open to discussion.

d) Another weakness of past SSR studies in L2 settings concerns the short in-class reading times. In a majority of them, the participants read for ten (e.g., Fujita & Noro, 2009; Matsui & Noro, 2010; Petrimoulx, 1988; Sakurai, 2014), or fifteen to twenty (e.g.,

Atay, 2004; Elley & Mangubhai, 1981b; Lin et al., 2012; Mermelstein, 2014; Pilgreen & Krashen, 1993; Suk, 2016; Quinn, 2017; Yoon, 2002) minutes in the class as part of SSR programs. None the less, longer reading times such as a class-hour-long reading time have not been explored or stated in the literature on SSR yet.

e) Moreover, the majority of the researchers suggest that longer-term studies are necessary and based on this call, some researchers and practitioners have directed their attention to longer-term studies; however, considering the realities and limitations of the class time and educational curricula, longer-term treatment times (such as a year-long programs) may not be possible since there might exist several different confounding variables affecting the performance of the students (e.g., maturation—the biological or psychological process that participants go through) throughout this time period. Besides, it may not be possible to teach the same students in the next semester or in the next year, either. In earlier SSR studies, as indicated earlier, the reading time is generally limited to reading times generally less than 20 minutes or so. However, rather than focusing on longer-term studies, maximizing the benefits we can get from shorter-period treatments might provide more valuable results. Considering all these, shorter-term studies such as one-semester-long studies with longer reading times might be necessary.

f) Besides these, there are also some methodological problems regarding the design of some earlier studies. One methodological problem is that in some studies control groups are lacking (e.g., Fujita & Noro, 2009; Pilgreen & Krashen, 1993; Sakurai, 2014). In some of the other SSR studies, the effectiveness of an SSR program over a traditional reading instruction, in which traditionally-taught groups do not receive any extra exposure to the target language. They provide treatment to the experimental groups,

yet they do not provide anything to the control groups as a placebo treatment. Therefore, it can be claimed that the positive outcomes yielded by those studies are foregone conclusions.

g) Another methodological problem concerns the tests administered to measure gains. In some studies, (e.g., Taguchi et al., 2004) the use of pre and posttest materials that are uneven in difficulty presents a weakness. In their study, the texts for measuring participants' comprehension and reading rate in the pre and post tests differed both in terms of their length (the former included 309 and the latter included 208 words) and their reading difficulty (the pretest was a bit more difficult than the posttest text). In another SSR study (e.g., Ducy-Perez, 1991), for example, the experimental groups were given a TOEFL test although they were beginning and intermediate EFL learners. In Suk's (2015, 2016) study, although she reported gains in vocabulary for the experimental groups which engaged in SSR, the comparison between the SSR and control groups regarding vocabulary was made by an individualized vocabulary test, which was developed from the vocabulary in the materials that the SSR groups read. Under these circumstances, interpreting the results and the (in)effectiveness of the treatment and making a comparison with the results of other studies become very challenging.

Considering these weaknesses, this study aims to eliminate these weaknesses in its design. This section has discussed the studies on SSR in L2 contexts with respect to the predictors of effective reading abilities. The following section provides an understanding of repeated reading (RR) and assisted repeated reading (ARR).

3.3. Repeated Reading

"We learn to read by reading"

(Nuttall, 1987, p.168)

Repeated Reading (RR) is considered as another effective instructional method, and Samuels (1979) is credited with developing this method. However, his original and classic RR method has evolved over time. In RR, basically, learners "reread a short, meaningful passage several times until a satisfactory level of fluency is reached" (Samuels, 1979, p. 404).

The major aim in RR is to reread a passage until a certain level of fluency is reached, and fluency is thus the major *goal* of RR instruction rather than that it is considered as a *by-product* of reading. In accordance with this goal, learners repeatedly read with an aim to automatize their lower-level processing skills so that they can allocate their cognitive resources for higher-level processing skills which are necessary for comprehending a text (Just & Carpenter, 1987; LaBerge & Samuels, 1974; Perfetti, 1985; Samuels, 1979). Thus, RR enhances both reading fluency and comprehension (O'Shea, Sindelar, & O'Shea, 1985). For automatizing lower-level skills, learners repeatedly read the same piece of text; thus, repetition is crucial for automaticity. Citing LaBerge and Samuels (1974), Therrien (2004) makes a persuasive explanation as follow:

> [...] reading fluency problems stem from readers' poor decoding skills. When decoding is too slow, a "bottleneck" is created that impedes the flow of thought and hampers comprehension. Poor readers often spend a great deal of their cognitive resources on decoding and have little left for

> comprehension. Fluent readers, on the other hand, decode words quickly and accurately, thus retaining many resources they can use for comprehension. (p. 252)

Considering the reciprocal relationship between lower level and higher level processing skills, the major aim of RR is to help readers automate their lower-level skills to help them allocate their cognitive resources for higher-level processing skills.

Repeated reading (RR) had long been used for teaching novice or struggling students to read in the first language (L1) educational settings informally. However, RR as an instructional method and a research area started with Samuels's (1979) preliminary study. The participants in Samuels's (1979) study were elementary school monolingual students who were having reading difficulties, and by repeatedly reading a text, they not only improved their silent reading rate but also decreased the number of word recognition errors. Samuels's original method was oral RR in the L1 domain, which aimed at ameliorating the struggle of readers' reading competence. Thus, the majority of RR studies, especially the ones in L1 settings, focused their attention on struggling students and students with reading disabilities (e.g., Lee & Yoon, 2017; Rashotte & Torgesen, 1985; Therrien & Kubina, 2006). Thereafter, extensive research has been conducted with young L1 speakers of English to investigate the reading development of children (National Reading Panel, 2000).

3.3.1. Repeated reading practices.

To date, RR has been used in a variety of formats including silent and oral, assisted and unassisted repeated reading both in first-language (L1) and second-language (L2) domains. Since the evolution of RR, which was developed by Samuels (1979) to cope with the reading problems that struggling L1 readers were having, it has taken different forms of instruction. Samuels's (1979) original RR method was oral reading, yet after him, they implemented RR in a silent mode in the form of silent repeated reading. Apart from being oral and silent, RR might be implemented in an assisted or an unassisted mode. Unassisted RR refers to silent RR, where readers repeatedly read the text in a certain number of repetitions in a silent mode. In assisted repeated reading (ARR), on the other hand, simultaneous audio assistance is provided while reading the text. As one form of and an alternative to RR, the concept of ARR is discussed in the next section more in-depth.

3.4. Assisted Repeated Reading as a Repeated Reading Approach

Assisted repeated reading (ARR) is one form of RR, in which some scaffolding is provided while reading (i.e., auditory assistance). In ARR implementations, learners might read the same text three, five, or seven times, and the number of times the audio assistance is provided might vary. In some earlier research, two readings (e.g., Gorsuch & Taguchi, 2008; Taguchi & Gorsuch, 2002, Taguchi et al., 2004) are accompanied by audio assistance whereas in some others (e.g., Taguchi, 1997; Taguchi, Gorsuch,

Takayasu-Maass, & Snipp, 2012) three of the rereadings are accompanied by audio assistance.

Auditory assistance can be provided by the teacher reading aloud or a ready-made audio track, which enables readers several advantages. *First of all*, it increases concentration (Chang, 2009) and motivates the learners to read the text by providing a different mode of input. That is, rather than repeatedly reading the same text several times—which might lead to boredom— audio-assisted reading can keep students motivated with and concentrated on reading (Chang, 2009; Taguchi et al., 2004). *Secondly*, according to dual-modality (or dual-coding) theory (Paivio, 1991), ARR might strengthen memory traces and thereby recall since presenting two different modalities of input (i.e., visual and auditory) together is considered to enhance the processing of newly learned things. For example, empirical evidence has indicated that audio-assisted reading (i.e., reading while listening) enhances vocabulary learning when compared to reading only; that is, assisting reading with listening enhances vocabulary learning. Apart from vocabulary, audio-assistance is a more effective approach for silent reading rate and comprehension than a reading-only-approach. *Thirdly*, ARR is considered to provide some form of scaffolding (Taguchi et al., 2016). Since learners are provided with audio-support while reading the text, such audio support might help them read faster than their usual reading rate by pacing them as they have to follow the audio text while also reading it.

The following sections review studies on ARR within the framework of predictors of reading comprehension.

3.4.1. Studies on possible effects of ARR.

3.4.1.1. ARR studies on comprehension and rate in L2 settings.

Repeatedly reading a text enables learners to read faster and comprehend better due to subsequent rereadings supported with audio-text. Since readers can practice lower order skills and pay greater attention to and allocate their cognitive resources on higher order skills over subsequent readings of the same text, they comprehend the text better and spend less time while reading it.

When the literature on ARR in ESL contexts is reviewed, it can be seen that one of the earlier studies in the ESL context was carried out by Blum et al. (1995), in which they experimented the effect of repeated reading with audio assistance on beginning level first grade elementary school students' (N = 5) L2 literacy for a 19-week period. The participants were language minority students coming from different L1 backgrounds and the study was home-based. For the purposes of the study, the books as well as the audiotapes were provided for the participants for daily home use. The results illustrated that ARR helped them read fluently; that is, they improved their oral reading fluency.

On the other side of the coin, ARR has received more attention by L2 reading researchers in EFL contexts. One of the primary studies was conducted by Taguchi (1997) in the Japanese EFL context. Taguchi investigated the effects of ARR on the development of silent reading rate of university-level Japanese EFL learners (N = 16). Throughout a 10-week period, the participants had 28 RR sessions in the classroom environment and read the sections taken from graded readers. In each session, they read a different section for seven-times silently, three of which were audio-assisted. The results

demonstrated that the participants' silent reading rate improved from the first to the seventh reading for the practiced texts whereas no statistically significant improvement was reported for the unpracticed texts, meaning that the participants could not transfer these gains to the new unpracticed texts. Moreover, participants' reading comprehension was not measured, and considering that such gains in reading rate are expected to be accompanied by gains in comprehension as well, it is difficult to interpret these results.

Following Taguchi's (1997) preliminary study, Taguchi, Gorsuch, and their colleagues conducted several other ARR studies in the following years. After a few years, Taguchi and Gorsuch (2002) conducted another study focusing on the effects of ARR on reading comprehension and silent reading rate. Similar to Taguchi (1997), they investigated the transfer effects of ARR on reading new passages during a 10-week experimental study administered in 28 sessions. The participants (N = 18), who were divided into an experimental and a control group, were nine university-level Japanese EFL learners. In each ARR session, they read each text seven times and timed their reading time with a stopwatch, three of which were accompanied by the audiotaped version of the text. The researchers, however, stated that the results were "inconclusive" (p. 58). Although they reported improvements in experimental group's word recognition skills, they stated that their silent reading rate "did not significantly improve from the initial reading of the 1st session passage to the 28th session passage." (p. 58). Besides, there was not a difference between the experimental and control group's silent reading rate at the posttest; that is, the performance of the experimental group was not necessarily better than the control group at the posttest.

However, additional studies have lent support to the positive effects of ARR. For example, in a follow-up study with beginning level Japanese EFL university students, Taguchi, Takayasu-Maas, and Gorsuch (2004) implemented a 17-week ARR treatment (42 sessions). The participants read two graded readers, and they read each text for five times, two of which were audio-supported. The pre and posttests required the participants to read the texts while also timing themselves after each reading. They also responded to comprehension questions followed by reading the texts after the first, third, and the fifth time. The results demonstrated that the participants' reading rate improved both within each session and across the sessions, and the participants were able to transfer the reading rate gains from practiced to unpracticed/new texts, a finding indicating improvements in their word recognition skills. However, unlike their performance in their silent reading rate, the participants were not able to improve their reading comprehension despite improving their word recognition skills. The researchers posited that the gain in their silent reading rate might not have been "sufficient to significantly boost their comprehension performance" (p. 88).

Another ARR study focusing on silent reading rate and reading comprehension was conducted by Gorsuch and Taguchi (2008). In their quasi-experimental study, they studied the effect of repeated reading with an aim to develop intermediate-level university level Vietnamese EFL students' (N = 30) reading fluency and reading comprehension. During their 11-week-long treatment, the experimental group read short stories from a graded reader for five times each in an assisted manner (audio model provided by live reading aloud), whereas no special treatment was provided to the control group. The results revealed significant increases in the reading fluency of the

experimental group participants when compared to the control group, but only for the treatment texts. According to the post-test results, however, the difference between the groups was not statistically significant regarding the reading rate; the ARR group read the post-test slower when compared to their performance in treatment texts. Nevertheless, their reading comprehension rates were higher when compared to the control group. So, even if ARR practice was not very effective in terms of improving fluency in this study; rather, it improved participants' reading comprehension rates.

The same authors reported the qualitative results of their 2008 study in a follow-up study (Gorsuch & Taguchi, 2010). However, this time, the effects of ARR on reading fluency and comprehension were reported from a qualitative perspective. At the end of each treatment session (16 sessions for an 11-week period), the participants wrote a report and handed it in to the instructor. The results illustrated that the participants' perceptions reported changes in reading speed and comprehension, which seemed to underpin the quantitative data results reported in their 2008 study (Gorsuch & Taguchi, 2008).

Afterwards, Taguchi, Gorsuch, Takayasu-Maass, and Snipp (2012) conducted a case study with one participant: a Japanese EFL reader at an advanced-level, Naomi (pseudonym). In their longitudinal diary study, they implemented a 14-week ARR program to observe its effects on Naomi's reading comprehension and fluency. The reading materials were two novels (i.e., narration). Thus, the researchers assessed Naomi's performance through a short story which was divided into two and administered as the pre and the post-test, respectively. The results showed that Naomi improved her reading comprehension and silent reading rate (114.26 wpm for the pre-test passage vs.

138.31 wpm for the post-test passage). The results, in fact, demonstrated that even an advanced level L2 learner improved her reading rate and even though her comprehension skills were already good, she further improved her comprehension skills during the treatment process.

All in all, earlier studies have presented varying results regarding the effects of ARR on reading comprehension and rate. Whereas some have provided evidence for the effectiveness of ARR on EFL learners' reading comprehension (Gorsuch & Taguchi, 2008, 2010; Taguchi et al., 2012), some others have indicated no effects (Taguchi & Gorsuch, 2002). One of the reasons behind these contradictory findings might be the methodological differences across those studies. That is to say, some studies report the gains made within the sessions (i.e., the gains made after the initial and *N*th reading on the practiced texts in the same session) whereas some others indicate the carryover—or transfer—effect (i.e., the gains made between pre and posttest on the unpracticed new texts). For example, in the former context, they test the participants' reading comprehension after the initial and *N*th reading (e.g., Taguchi & Gorsuch, 2002). In Taguchi and Gorsuch's (2002) study, for example, the participants took the reading comprehension tests after their first, third, and seventh reading. In such instances, improvements in reading comprehension can be reported, yet the students—in order to be effective readers—are expected to transfer these gains on unpracticed new texts. However, even in such cases, the participants might not make gains—as reported in Taguchi and Gorsuch's (2002) study. Indeed, it is also worth to note that "simply rereading the same text does not always ensure better comprehension of the text." (Taguchi et al., 2016, p. 110). As to silent reading rate, some studies showed that ARR

was not effective in improving silent reading rate. For example, Taguchi (1997), after his 10-week assisted repeated reading treatment (28 sessions) with university-level Japanese EFL learners in which they read texts for seven times, concluded that "the transfer of practice effects to a new passage was not significant" (p. 97) for the silent reading rate. Similarly, after their 10-week ARR treatment with Japanese EFL learners, Taguchi and Gorsuch (2002) reported that there was not a significant difference between the experimental and the control group in terms of their silent reading rate, and the ARR treatment was no different than the traditional reading instruction.

As can be seen, the methodological differences across studies make it difficult to compare the studies. Besides, the results regarding the effects of ARR on reading comprehension and rate are inconclusive. The next section discusses another predictor: vocabulary knowledge.

3.4.1.2. ARR studies on vocabulary in L2 settings.

Research in EFL settings indicated that ARR enhances vocabulary knowledge (e.g., Han & Chen, 2010; Liu & Todd, 2014; Serrano & Huang, 2018; Webb & Chang, 2012).

In an experimental study with Taiwanese EFL learners, Webb and Chang (2012) compared the effects of assisted repeated reading (ARR) and unassisted repeated reading (URR) conditions on vocabulary knowledge. The participants (N = 82) were beginning level learners studying at a high school in Taiwan and were divided into two groups. One group only repeatedly read 14 short stories whereas the other group read and listened to them simultaneously during their class time for a 14-week period (two stories each week,

28 stories in total). Each week, 80-minutes was allocated for reading the stories. The results of the Vocabulary Levels Test administered both as a pre and posttest indicated that ARR might be a more effective and viable approach for incidental vocabulary learning, when compared to URR condition. According to what Webb and Chang (2012) indicated, reading and listening to the texts simultaneously is considered to strengthen the memory links, "leading to higher levels of retention of the target vocabulary." (p. 283). They concluded ARR plays a facilitative role in improving learners' vocabulary knowledge. However, it must also be noted that the researchers did not clearly indicate how many times each text was reread (i.e., number of readings); rather, they only stated that the participants were instructed to read minimum two times. Therefore, the lack of such information makes it difficult to draw clear conclusions since the number of readings is considered to be an important factor in the results (Taguchi et al., 2016). Moreover, the participants were allowed to use dictionaries, which might have affected the gains.

In another study in which the effects of ARR on vocabulary were investigated, Han and Chen (2010) carried out a study in which they had a repeated reading intervention for 20 ARR sessions over three weeks with one heritage speaker of Chinese living in the U.S. (Anna—pseudonym). Anna read both theme-related passages (10 short passages) and an independent article (divided into 10 segments) orally in a repeated manner assisted with audio support for five times, reading the texts she self-selected. The results illustrated a vocabulary growth (both intentional and incidental)—led to the acquisition of both receptive and productive vocabulary knowledge. However, they provided not only corrective feedback for her but also explicit vocabulary instruction.

Moreover, considering that it was a case study which did not include a control group, the results should be interpreted accordingly.

Liu and Todd (2014), similarly, studied the effects of ARR on the learning of novel vocabulary incidentally in a one-hour treatment. The participants (N = 80) were Mandarin speakers learning Japanese as a foreign language, who were high-intermediate level learners. They read seven passages from a language textbook, which were carefully controlled regarding the density of unknown words. In the one-hour-long reading practice, one group read seven passages once by seeing the target words in different contexts (ARR-different), and the other group read one of those passages seven times by seeing the target words in the same context seven times (ARR-same). Their incidental vocabulary learning that was measured via a multiple-choice test consisting of target words and fillers was administered both as a pre and as a delayed posttest, where they were asked to match an L1 definition with the appropriate target word. The results indicated vocabulary gains both in ARR-same and ARR-different groups, yet the ones who read the target words in different contexts learned more vocabulary. They stated that "variable contextual cues...actually incur a more facilitative cognitive state of mind for language acquisition." (p. 17). However, the study did not include a control group, and the sample size in each treatment condition was small. The researchers also questioned whether encountering with the word within the same context or in different contexts contributes to the acquisition of a new word (Liu & Todd, 2014).

In a recent experimental study, Serrano and Huang (2018) further examined the effect of ARR on incidental vocabulary learning and retention by specifically focusing on the time distribution of treatment sessions (i.e., intensive vs. spaced distribution). For the

purposes of the study, Taiwanese EFL high school students (*N* = 71) participated in the study and were divided into two: One group received one ARR session every day for five consecutive days (intensive distribution, with 1-day interval); the other had one ARR session once a week for five consecutive weeks (spaced distribution, 7-day interval). The treatment comprised five sessions where they read short texts adopted from an English textbook. A vocabulary levels test comprising 90 multiple choice questions and a bilingual vocabulary matching test were administered as a pre, post, and as a delayed post-test. Results showed that both types of ARR significantly contributed to incidental vocabulary learning and retention since both groups made statistically significant gains, yet the group who practiced ARR intensively (37.5%) had higher gains the spaced group (21.7%); that is, the intensive (i.e., concentrated) group made greater gains. The researchers concluded that "when practice is concentrated, it contributes to greater vocabulary learning in the short term" (p. 19). On the other hand, the spaced group outperformed the intensive group at the delayed post-test since they were able to retain nearly all the target words whereas the intensive group had forgotten nearly half of the words after twenty-eight days, and the researcher reported that "vocabulary learning is better retained when learning sessions are spaced" (p. 20). However, these results should be interpreted by considering some other factors. For example, subsequent to reading the text, both groups had comprehension activities and the researchers provided the students with glossaries to refer to, both of which might have increased the rate of incidental vocabulary learning. Moreover, the delay between the post and the delayed posttest was not the same for these two groups. Furthermore, the lack of a control group presents another limitation.

Overall, these studies reported affirmative results regarding the effect of ARR on vocabulary knowledge. From a different perspective, however, ARR practices might also present a restrictive nature concerning vocabulary knowledge. ARR is considered to enhance vocabulary knowledge, yet a large vocabulary is needed to enable the reader to infer meaning as well. And there is also another possibility that if the learners cannot infer the meaning of an unknown word from the context despite seeing it many times or misinterprets its meaning, the learner might not end up incorporating that word to her/his vocabulary knowledge or they might mislearn it. In Taguchi et al.'s study (2012), for example, Naomi stated the following:

> [...] I wanted to read the passage again after I looked up the meanings of those words. And I found that there were some words whose meanings I had misunderstood. Also, there were parts of the passage in which I had guessed the meanings incorrectly. I became unsure as to whether I was able to understand as much as 90% of the passage. For example, I mistook "at bay" for "at the harbor," but it actually means "about to be caught." I also mistook "row" for "a line," but it meant "a noisy fight.". (Taguchi et al., 2012, p. 45)

Moreover, repeatedly reading the same words in the same passage might not help learners promote their vocabulary knowledge in the same way that extensive reading (ER), or sustained silent reading (SSR) practices do. Since ARR participants read comparatively less due to the nature of repeated reading, there is also comparatively a slighter chance to be exposed to a variety of vocabulary.

Apart from vocabulary, other predictors of reading comprehension comprise individual factors, which are addressed in detail below.

3.4.1.3. ARR studies on reading motivation and attitudes toward reading in L2 settings.

Research on ARR in L2 settings presents varying findings regarding the effects of ARR on reading motivation and attitudes toward reading. In one of the earlier studies, for example, Blum et al. (1995) explored the effects of a home-based 19-week ARR program (audio supported by cassettes). The participants were first graders (*N* = 9) in the U.S.context and were ESL learners who had limited English. They read short books at home. The data which came from a survey and interviews indicated that the ARR program helped the participants increase their motivation to read.

In a quasi-experimental study, Gorsuch and Taguchi (2010) conducted an 11-week ARR treatment with university-level Vietnamese EFL learners (*N* = 30). The participants read extracts taken from three short stories, divided into 16 texts, by reading each text five times, and two rereadings were accompanied by the audio. The results indicated that their motivation to read increased after the treatment. The participants stated they had an interest in reading texts in English and ARR changed their attitudes toward reading in English, by helping some start a reading habit.

Apart from the advantages, the adoption of ARR might—at the same time—yield some disadvantages and drawbacks of ARR. For example, rereading the same text might have negative effects such as decreases in motivation and boredom (Taguchi et al., 2004, 2012, 2016). In a case study, Taguchi and others (2012) implemented a repeated reading

program with an advanced Japanese EFL learner named Naomi (pseudonym) and investigated the effects of a 14-week-long RR treatment (including more than 70 sessions) on her reading rate and comprehension. Throughout this time, she read two novels, and she read each piece of text seven times each session. Even though it was a self-guided program (i.e., Naomi decided upon the number of repetitions, and the number of pages to be read in each session), she reported some boredom and demotivation due to excessive repetition. She indicated the following:

> [...] There were some grammatically ambiguous points I couldn't make out while reading, but I decided not to worry much and keep on reading. Even at the end of the session, however, I still couldn't understand them. I sometimes found myself losing concentration while reading along with the audio recording. I'm thinking of reducing the number of times I read along with the recording because I felt bored by the 4th or 5th time during today's session. (Taguchi et al., 2012, pp. 44-45)

As can be seen from her diary entry, repeatedly reading the same text caused her to lose not only her concentration but also her motivation. As another researcher puts it, "There seems to be less enthusiasm about repeated reading, primarily, perhaps, because it seems repetitive and boring." (Macalister, 2014, p. 391). He also refers to "affective resistance" (pp. 394-395) as one of the problems that might be encountered in RR.

3.4.2. Weaknesses of earlier ARR studies and gaps in the literature.

The results of these studies cannot be generalized due to several weaknesses, and this section addresses several methodological and practical weaknesses encountered in past ARR studies. The weaknesses include certain practical problems such as (a) limited number of studies following similar methodological designs; (b) differences regarding the reading amount and time across studies; (c) use of several different reading materials and tests to measure the gains; and (d) lack of a control group.

a) The first weakness of studies on ARR concerns the adoption of several different methodological designs. For example, whereas some studies included production-based ARR practices, some of them involved non-production-based practices. That is, Han and Chen (2010) had the participants have phonological production practice. On the other hand, Webb and Chang (2012) asked their participants to basically listen to the audio. Moreover, in some studies, the teacher provides the audio-support by reading it aloud (e.g., Gorsuch & Taguchi, 2008) for the students whereas in some other studies, an audio support through cassettes or CD players are provided (e.g., Blum et al., 1995; Gorsuch & Taguchi, 2010; Taguchi & Gorsuch, 2002; Taguchi et al., 2004). Such a difference in terms of the delivery of input-modality presents another weakness.

b) Secondly, the differences regarding the reading amount and time across studies present another weakness. More specifically, the readers might read the same text either for three times, or for five times (e.g., Chang & Millett, 2013; Gorsuch & Taguchi, 2008; Taguchi et al., 2004), or seven times (e.g., Taguchi, 1997; Taguchi & Gorsuch, 2002) in ARR practices. Furthermore, while some of them provide the audio support only once, the others provide it for two or three times.

c) The use of several different reading materials and tests to measure the gains presents another weakness. In some studies, the instructional reading materials are graded readers or sections from them (e.g., Taguchi, 1997) whereas some other studies have the participants self-select the texts (e.g., Han & Chen, 2010). Liu and Todd (2014), on the other hand, adopted passages from a language textbook. In addition to the variety of instructional materials that were reread in the earlier studies, another weakness concerns the adoption procedures of these materials. In a majority of ARR studies, no predetermined procedures were followed while selecting the instructional materials.

d) Finally, the lack of a control group is another weakness of earlier ARR studies (e.g., Han & Chen, 2010; Liu & Todd, 2014; Serrano & Huang, 2018). The lack of control group data makes it difficult to attribute the positive results only to the ARR treatment.

3.5. Chapter Summary

This chapter provided a detailed review of the literature on SSR and ARR practices, which was followed by a discussion of their effects on and/or their relation with the predictors of effective reading abilities. In addition, a discussion of studies conducted in ESL/EFL contexts investigating possible effects of SSR and ARR on the predictors of effective reading abilities was presented. The chapter also presented gaps in the field concerning the possible effects of these two methods. Therefore, the focus of this study has been an attempt to fill in some of the gaps in these studies.

CHAPTER IV

METHODOLOGY

4.0. Introduction

This chapter describes the methods and the procedures that were employed to collect and analyze the data in the following order: (a) methods of inquiry and research design, (b) setting, (c) participants, (d) the researcher, (e) treatment and data collection instruments and procedure, and (f) data analysis.

4.1. The Methods of Inquiry and Research Design

This study followed a mixed-method quasi-experimental between-groups pretest/posttest with a control group design.

This study is an experimental study in which the participants received three different types of treatment for a particular period of time. Considering the three types of experimental designs (i.e., pre, true, and quasi-experimental), this study adopted a quasi-experimental research design (Campbell & Stanley, 2015) since the participants in this study were recruited by convenience sampling, not by true random sampling. Its design is diagrammed as follows:

O1	X	O2
O1	X	O2
O1	X	O2

In the design diagrammed here, the three rows represent the three experimental groups. Before and after introducing the independent variable (X) (i.e., three different types of treatment comprising SSR, ARR, and TR instructions), the dependent variable (O) is measured, where the numbers represent the number of measurements. O1 stands for the pretest whereas O2 stands for the posttest. That is to say, the effect of the independent variable (X) was measured both before (O1) and after (O2) the introduction of the independent variable, which is also known as a pretest-posttest design.

The design of this study was used to investigate the effects of three different reading instructional methods (namely, SSR, ARR, and TR) on dependent variables after participating in a 10-week-long treatment. The variables in this study included six dependent (i.e., reading comprehension, silent reading rate, receptive and productive vocabulary knowledge, the motivation for reading, and attitudes toward reading) and three independent (i.e., a 10-week-long treatment, time, and proficiency level) variables, all of which are summarized in Table 4.1.

Table 4.1

Summary of variables in the study

Type of variable	Name of the variable	Measurement scales (Levels of measurement)
Dependent variable(s)	Reading comprehension	Ordinal
	Silent reading rate	Ordinal
	Receptive vocabulary knowledge	Ordinal
	Productive vocabulary knowledge	Ordinal
	Motivation for reading	Ordinal
	Attitudes toward reading	-
Independent variable(s)	Group (Two experimental groups and one control group)	Nominal
	Time (Prior to and after the 10-week treatment)	Nominal
	Proficiency level (Low proficiency and high proficiency learners)	Nominal

The methodological approach that this study adopted is a mixed method research design (Creswell, 2013; Dörnyei, 2007; Tashakkori & Teddlie, 2010; Teddlie & Tashakkori, 2009), which involves combining qualitative and quantitative research during the collection or the analysis of data (Dörnyei, 2007, p. 24) in several different ways. Such a combination is considered advantageous rather than having a monomethod since "each highlights 'reality' in a different, yet complementary, way" (Lazaraton, 2005, p. 219, as cited in Dörnyei, 2007, p. 44). Besides, the advantages of mixed-method research design are manifold (Dörnyei, 2007). According to Dörnyei (ibid.), *first of all*, a researcher can use the advantages of both qualitative and quantitative approaches and abstain from their disadvantages or weaknesses. *Next*, complex issues can be analyzed via multi-level analysis. Numbers from quantitative data and details from qualitative data

help individuals gain a better understanding of complex issues. *Thirdly*, the validity of research is enhanced by means of the triangulation of the data. *Finally*, a mixed-method design would find more acceptance from a larger group of audience, rather than a research design adopting a single approach.

Mixed method research design also varies according to the methodological procedures followed, and among the six different types of mixed-methods research design (i.e., "sequential explanatory, sequential exploratory, sequential transformative, concurrent triangulation, concurrent embedded, and concurrent transformative design") (Creswell, 2009), embedded experimental model (Creswell & Plano Clark, 2007) was adopted for the study. In an embedded or nested design, which is a variant of the embedded design, both quantitative and qualitative data are collected, yet one of them is given more priority over another whereas the other is embedded in the dominant method. According to Creswell and Plano Clark (2007), "The priority of this model is established by the quantitative, experimental methodology, and the qualitative dataset is subservient within that methodology" (p. 69). Moreover, the embedded design consists of two approaches according to the way it is conducted—either simultaneously or sequentially: one-phase and two-phase approach (Creswell & Plano Clark, 2007). This study, however, adopted the two-phase approach because qualitative data were collected followed by the collection of quantitative data. That is, the study initially began with quantitative research and continued with qualitative research.

4.2. The Setting for the Study

The present study was conducted in an English as a foreign language (EFL) university setting in Turkey. More specifically, the setting was the Department of Foreign Language Education, Faculty of Education at a four-year state university where the students major in English Language Teaching (ELT). The university, which is home to 21 undergraduate programs and to an approximate of 45.000 undergraduate students, is a large-sized mixed-medium (both Turkish and English) university. However, the medium-of-education is English in the department, and the students are admitted to the department with a YDS (Yabancı Dil Sınavı) [Foreign Language Test—a nationwide high-stakes test in Turkey] exam score.

While registering for the university at which the study was conducted, the students have to meet one of these two criteria if they enroll in an undergraduate program where the medium of education is 100 per cent English: In order to be exempt from the English Preparatory Program (which is compulsory for the English-medium programs), they are required either (1) to score at least 80 (eighty) marks out of 100 (hundred) at the institutional in-house English Proficiency Test which assesses four language skills (according to the undergraduate regulations of the university), or (2) to submit a valid TOEFL score (a minimum TOEFL IBT score of 96) (in accordance with the regulations of CoHE). Since the medium-of-education is English in the Department of Foreign Language Education, the registered students have to meet one of these two criteria; otherwise, they are required to attend the English Preparatory Program run by the department, where they study English at least for a semester.

The English Preparatory Program run by the department follows a segregated skills approach and consists of the four primary language skills of reading, writing, listening, and speaking. In the program, the total hours of English classes are 24 contact hours of instruction (of 50-minutes each) per week, and students receive six contact hours of instruction for each skill per week. The study was conducted as a part of the compulsory *Reading Skills* course offered in the program, which focuses on the development of L2 reading skills.

4.3. Participants

Turkish EFL students enrolled in the Department of Foreign Language Education at a state university participated in this study. The students who were taking the *Reading Skills* course in the English Preparatory School of the Department participated in the study; thus, the participants were selected using convenience sampling. All of them were majoring in the field of English Language Teaching (ELT).

The participants in this study had scored below the passing score on the in-house English proficiency test (i.e., below 80 out of 100), and all these participants were divided into three treatment groups via systematic random sampling (Dörnyei, 2007) at the outset of the study: That is, every *n*th student in the course list was assigned to one of the three groups: the SSR group (experimental group 1), the ARR group (experimental group 2), and the TR group (comparison group).

4.3.1. Attrition.

The initial number of participants was 69, but it dropped to 41 at the end of the study because of either participant dropouts or failure to complete pre or post-tests. Therefore, for the analysis of the data, the final *n* size for the SSR group was 15, for the ARR group was 14, and for the TR group was 12 (see Table 4.2 for the number of participants at the beginning and end of the study).

Table 4.2

The initial and final sample size for each treatment group

Treatment Group	*n* of participants at the beginning of the study	*n* of dropouts	*n* of participants at the end of the 10-week treatment
Sustained silent reading	26	11	15
Assisted repeated reading	24	10	14
Traditional reading	19	7	12
Total	69	28	41

As indicated in Table 4.2, 28 participants were eliminated from the analyses due to the following two reasons: (1) There were some students who enrolled in the department later than the other students due to administrative issues they had. Thus, they missed the pretests and they were thenceforth excluded from the analyses. Moreover, (2) some of the participants who did not attend all the treatment sessions over 10 weeks or not take the posttest were eliminated from the analyses by the same token. From Table 4.3 below, the details of the causes of attrition are reported in depth.

Table 4.3

The causes and amount of participant attrition

Treatment Group	*n* of participants who missed any treatment session	*n* of participants who missed the pretest	*n* of participants who missed the posttest	Total *n* of attrition per group
Sustained silent reading	6	4	1	11
Assisted repeated reading	8	2	-	10
Traditional reading	6	-	1	7
Total				28

4.3.2. Final sample.

The final sample comprised forty-one Turkish EFL students enrolled in the department. They—except one who was 31 years old—were young adults (34 female, 7 male) whose ages ranged between 17 and 31 (*M* = 18.85, *SD* = 2.06) years old. In Table 4.4, the demographic details of the participants in each group are given.

Table 4.4

Demographic details of the final sample

	SSR (*n* = 15)		ARR (*n* = 14)		TR (*n* = 12)	
Gender	*n*	(%)	*n*	(%)	*n*	(%)
Female	15	100%	11	78.6%	8	66.7%
Male	0	0	3	21.4%	4	33.3%

All these participants had just graduated from high school and started university, and they were freshmen students. Of the 41 participants, nearly one-fourth (*n* = 11) were repeat students who had failed from the previous year either due to not completing the courses or the semester (i.e., absenteeism) or failing to score above the passing score at the

English Proficiency test (i.e., 80/ 100) whereas the rest (n = 30) were newcomers. Moreover, all the participants were native speakers of Turkish and had been studying English formally for approximately 10 years in the Turkish education system (from the Grade 4 onward in primary school) as a compulsory course prior to the study. Thus, they were rather homogenous with respect to their English educational background. Moreover, none of them had been to a native English speaking country or had any experience going abroad for any purpose.

As indicated earlier, these participants were distributed to treatment groups randomly and were given the Michigan English Placement Test (Michigan EPT, 2006). The purpose of this test was twofold: (1) to determine their English proficiency levels, and (2) to check the homogeneity of the treatment groups. However, the Shapiro-Wilk test for normality (Shapiro & Wilk, 1965) indicated that the data were not normally distributed ($p < 0.05$). Therefore, a rank-based non-parametric test, a Kruskal-Wallis H test was used to investigate whether or not there were pre-existing differences regarding the mean of three groups. The results revealed that there was not a statistically significant difference among the three treatment groups with respect to their English proficiency levels, $\chi^2(df2) = 2.416$, $p = 0.299$. Table 4.5 presents the mean rank scores for the groups:

Table 4.5

Kruskal Wallis-H statistics and descriptives of treatment groups on Michigan EPT

Treatment groups	*n*	Mean	χ^2	df	*p*
Sustained Silent Reading	15	24.53	2.41	2	.299
Assisted Repeated Reading	14	20.25	2.41	2	.299
Traditional Reading	12	17.46	2.41	2	.299
Total	41				

Note. Michigan EPT = Michigan English Placement Test

As shown in Table 4.5, the Kruskal-Wallis H test results indicated no statistical differences across the three groups. The scores of the Michigan EPT were also used for determining the English proficiency levels of the participants (for the CEFR and skills level scores of Michigan EPT, see Table 4.17). In accordance with the CEFR (Council of Europe, 2001) and skills level scores, and the CEFR and English proficiency levels of the participants in each group are reported in Table 4.6:

Table 4.6

CEFR and Skills Level Scores of participants for each group

		SSR (*n* = 15)	ARR (*n* = 14)	TR (*n* = 12)
		n (%)	*n* (%)	*n* (%)
CEFR Level				
	A1	-	-	-
	A2	-	-	-
	B1	-	-	-
	B2	2 (13.3%)	3 (21.4%)	4 (33.3%)
	C1	13 (86.7%)	11 (78.6%)	8 (66.7%)
Skills Level				
	Beginner	-	-	-
	Beginner (high)	-	-	-
	Intermediate (low)	-	-	-
	Intermediate	3 (20%)	3 (21.4%)	5 (41.7%)
	Advanced (low)	9 (60%)	9 (64.3%)	6 (50.0%)
	Advanced	3 (20%)	2 (14.3%)	1 (8.3%)

Note. SSR = Sustained Silent Reading, ARR = Assisted Repeated Reading, TR = Traditional Reading

As reported in Table 4.6, the proficiency levels of the participants ranged between intermediate (CEF Level = B2) and advanced (CEF Level = C1), and the majority of the participants seemed to be at intermediate to low advanced levels. Thus, all three groups were heterogeneous at the same time; i.e., mixed-ability groups including both high and low-reading ability (both high and low-proficiency) participants. That is, each treatment group included both low and high proficiency participants, yet they received the same treatment within treatment groups.

To sum up, at the time of data collection, all the participants were students enrolled in the English Preparatory Program of the department and were taking the compulsory *Reading Skills* course, in which a total of six hours of instruction per week was provided. The researcher taught all the sections of the *Reading Skills* course for all three groups.

4.4. The Researcher

The researcher in the present study is an instructor in the Department of Foreign Languages Education, where the study was conducted. She offers a number of theoretical and practical courses at the undergraduate level and in the English Preparatory School of the Department. The researcher was also the instructor of the *Reading Skills* course at the time the study was conducted. She is a graduate of the Department of English Language Teaching/ Faculty of Education at a university in Turkey and had had six years of teaching experience at the time the study was conducted. She is a TEFL teacher with Master’s degree.

4.5. The Treatment

The treatment was designated in the Fall term of the academic year 2016-2017 for a 10-week period from September to December 2016. Overall, the treatment lasted 10 weeks and consisted of 10 sessions—150 minutes per session, a day per week.

For the purposes of the study, the *Reading Skills* course in the English Preparatory Program was modified and a special reading program was designed, where three different reading instructional procedures (i.e., SSR, ARR, and TR) were incorporated into the regular *Reading Skills* course. For the treatment groups where SSR and ARR instruction was provided, the total weekly class time of the course (which consisted of six 50-minute contact hours a week—300 min) was divided into two: Half of it (150 min) was allocated for the sustained silent reading and assisted repeated reading in the SSR and ARR groups respectively whereas the other half (150 min) was designed for traditional reading instruction due to the curricular objectives. To put it another way, only three class hours out of six were devoted to the treatment in these treatment groups: The SSR group received 3 hours of sustained silent reading + 3 hours of traditional reading instruction and the ARR group received 3 hours of assisted repeated reading instruction + 3 hours of traditional reading instruction. On the other hand, the TR group received 6 hours of traditional reading instruction. The designation of class time for each treatment group is illustrated in Table 4.7:

Table 4.7

The design of class time for the treatment groups

Group	Treatment		Traditional reading instruction
	Instruction	Active reading time	
Sustained Silent Reading	3 class hours of SSR instruction (150')	1 class hour (50')	3 class hours (150')
Assisted Repeated Reading	3 class hours of ARR instruction (150')	1 class hour (50')	3 class hours (150')
Traditional Reading	3 class hours of TR instruction (150')	Approximately 5-10'	3 class hours (150')

In the SSR and ARR groups, the participants' active reading time during the three class hours of SSR or ARR instruction was constant: 50-minutes (one class hour). And, the remaining class time (two class hours—100 minutes) was used for reading activities in both groups in order to ensure that the students actively participated and so that they were not the mere recipients of input (e.g., reading activities such as "Book Blurb Activity") (Bamford & Day, 2004) (see Appendix A for details), helping them relate what they read to other language skills. No reading goal was set for the SSR group participants, yet they were encouraged to read as much as possible throughout the 10-week treatment period. In the TR group, on the other hand, the active reading time was not fixed since they read short texts from reading textbooks, whose lengths varied. Moreover, pre and post-reading activities they engaged in each session varied, which required them to go back to the text again and read it. However, their active reading time ranged approximately between 5-10 minutes in each session.

4.6. Instructional and Experimental Procedures

For the three-hour traditional reading instruction that all three groups received, the researcher used the same syllabus and the same teaching methods for all three groups (i.e., SSR, ARR, and TR). The reading textbook was the same, which was *Unlock Reading and Writing Skills 3* by Cambridge University Press. The CEF level of the book was B1, which was in accordance with the curricular goals. In addition to the three-hour traditional reading instruction which all the three groups received as a part of their regular reading instruction, whereas the SSR and the ARR groups received three-hour SSR or ARR instruction, the TR group had an extra 3-hour traditional reading instruction. Moreover, none of the out-of-class assignments were related to the interventions being practiced at the time of data collection, and none of the participants were held accountable to do any assignments or language exercises as a part of the treatment they received. The general framework for the regular traditional reading instruction that participants from all three groups received is set out in Table 4.8.

Table 4.8

Details of 14-week instruction for regular class hours

Week	Unit	Reading skills and strategies
1-2	Introduction to the course & Pretests	
3	Unit 1. Animals	"Reading for main ideas, Using your knowledge to predict content, Reading for detail, Working out meaning from content, Using visuals to predict content, Skimming, Making inferences from the text"
4	Unit 2. Customs and Traditions	"Reading for detail, Scanning to predict content, Reading for main ideas, Making inferences from the text, Understanding key vocabulary, Previewing, Skimming, Understanding discourse"
5	Unit 3. History	"Identifying purpose and audience, Using your knowledge to predict content, Understanding key vocabulary, Scanning to find information, Skimming, Reading for detail, Making inferences from the text"
6	Unit 4. Transport	"Using visuals to predict content, Understanding key vocabulary, Reading for main ideas, Reading for detail, Making inferences from the text"
7	Unit 5. Environment	"Scanning to find information, Using your knowledge to predict content, Reading for main ideas, Reading for detail, Identifying the purpose, Previewing, Understanding key vocabulary, Making inferences"
8	Midterm exams	
9	Unit 6. Health and Fitness	"Reading for detail, Understanding key vocabulary, Using your knowledge to predict content, Skimming, Reading for main ideas, Using key vocabulary, Making inferences from the text"
10	Unit 7. Discovery and Invention	"Scanning to predict content, Using your knowledge to predict content, Skimming, Reading for detail, Making inferences from the text"
11	Unit 8. Fashion	"Distinguishing fact from opinion, Using your knowledge to predict content, Reading for main ideas, Reading for detail Making inferences from the text, Understanding key vocabulary, Skimming"
12	Unit 9. Economics	"Skimming, Understanding key vocabulary, Reading for main ideas, Identifying the purpose, Reading for detail, Making inferences from the text, Using your knowledge to predict content"
13	Unit 10. The Brain	"Previewing, Skimming, Reading for detail, Making inferences from the text, Scanning to predict content"
14	Posttests	

4.6.1. Instructional and experimental procedures for experimental classes.

Instructional and experimental procedures for experimental classes (i.e., SSR and ARR) and the control class (i.e., TR) differed across groups, all of which are discussed in the following sections.

4.6.1.1. Experimental classes focusing on SSR and ARR.

This section presents the experimental as well as instructional procedures which differed across the groups. The procedures implemented in the SSR and ARR groups are described in the following sections respectively.

4.6.1.1.1. Sustained Silent Reading group.

For the SSR treatment, 10 sessions (in 10 weeks) were held throughout the term. First of all, the researcher organized an orientation meeting for the SSR group participants and spent one class session to introduce the treatment and the tasks at the beginning of the semester.

She had an orientation session, in which she introduced the graded readers to the participants and briefed them about the strategies to choose a reader according to their own comfort levels and interest, as well as demonstrating how to fill in their reading logs (see Appendix B for the reading log). She also brought the collection of the graded readers to the classroom and informed the participants about the grades, genres, and book blurbs. She then directed each participant to the grade levels s/he should read according

to her/his English proficiency level (according to the results of Michigan PTE and the receptive Vocabulary Levels Test—VLT). The results of Michigan PTE indicated the CEF level of the participants, yet it was also compared to the results of the receptive VLT. The receptive vocabulary test scores the participants received from each level (i.e., 2K, 3K, 5K, 10K, UWL) were summed and multiplied by 20 (since there were five levels). For example, assuming that a participant scored 45 on the pre-test, the vocabulary range s/he knows must be around (45 x 20) = 900 words. In the orientation session, the participants were also asked to choose two books randomly from among those in the classroom library by considering their grades, genre, and so forth, which was then followed by small group discussions in which they compared the books. During the session, the researcher also emphasized that the participants, whenever they wanted, were free to change the readers for another in case they have difficulties or they do not enjoy the genre, topic, et cetera. They were given the flexibility to make personal choices not to kill their *pleasure* for reading, yet that flexibility was limited to their proficiency level. The researcher actively monitored each and every participant and provided constant guidance whenever they needed help or finished/changed their books. Following the orientation session, the treatment started.

The SSR group met once a week, for a period of three class hours (i.e., 150 minutes) per week. Of those three-class hours, one class-hour (i.e., 50 minutes) was allocated for active engagement in reading whereas the other two class hours (i.e., 100 minutes) were allocated for reading activities. The allocated reading time was determined in accordance with the results of the pilot study (see Savasci & Akyel, 2018), where the pilot study participants had found the reading time (i.e., 3 class hours) very long. Thus,

the reading time was shortened to one class hour (i.e., 50 minutes) in this study. In the study, the reading materials were a collection of graded readers in English. All the reading was done in the classroom environment and the participants were not allowed to take the graded readers home. The participants self-selected graded readers from a collection of readers published by Cambridge University Press, Oxford University Press, and so forth. The participants were encouraged to pick books not only according to their proficiency level but also to their own interests. While choosing the materials, even though there were not any fixed criteria, Nuttall's (1987) suggestion that extensive reading materials should be "appealing, easy, short and varied" (pp. 170-171) was taken into consideration.

The overall framework of the instructional procedure in the SSR treatment was based upon Day and Bamford's (2002) top ten principles for the implementation of ER programs in addition to McCracken's (1971) six basic premises of SSR programs. With respect to Day and Bamford's Principle #1, the materials were appropriate to the participants' current linguistic competence. Besides, there were a variety of reading materials (i.e., 79 graded readers) for the readers (Principle #2), among which they could choose what they would like to read (Principle #3). In accordance with Principle #4, learners were encouraged to read as much as possible. Moreover, all reading was done for pleasure, for information, and for general understanding. According to Principle #6—*reading was its own reward*—there were few or no follow-up requirements such as book reports, tests, et cetera; thus, learners/students read just for the sake of reading. Instead, they engaged in post-reading activities in which they had pleasure. They also read faster than slower (Principle #7), and dictionary use was discouraged while encouraging them

to improve their inferencing skills, which helped them to avoid word-by-word reading. Reading was an individual and a silent activity (Principle #8). Most importantly, the instructor acted as a guide for the participants (Principle #9), and she was like a role model (Principle #10). Overall, apart from these principles, the instructional procedures also grounded on McCracken's (1971) basic premises of SSR: "(1) Each student read silently, (2) The instructor read, (3) Each student selected a single book., (4) A timer was used., (5) There were absolutely no reports or records of any kind., (6) It began with students heterogeneously grouped." (McCracken, 1971, p. 521).

Each SSR session followed and repeated the following procedure and steps. Of three class hours, *in the first class hour*, (1) the researcher first distributed the reading logs to its owners, and the participants checked their logs to see where they had stopped reading in the previous session. Then, (2) they had a whole-class discussion about what they had read in the previous session and all of them shared their reactions to it orally. *In the second class hour*, (3) the participants continued reading their graded readers silently in the classroom environment for 50-minutes under the guidance and observation of their instructor. After the 50-minute reading time, *in the third class hour*, (4) the participants filled in the information required in their reading logs (e.g., the number of pages they read). (5) The researcher introduced and they implemented the post-reading activity of that week (For a detailed list of the activities employed weekly, see Appendix A) for the rest of the class hour, which mainly included discussing individualized comprehension questions, speaking, writing about the graded readers they were reading. And, for the last 15-minutes of the class time, (6) the researcher collected the graded readers back, and (7) she distributed a blank page on which the participants were asked to write their

reflections, and the participants wrote their reflections. (8) The researcher collected the reflections back and the session ended. During the 10-week period, the treatment sessions followed this procedure and the participants read a number of books that they chose from the classroom library (see Appendix C for the details about the book each participant read). Table 4.9 describes the sequence of a regular SSR session.

Table 4.9

The sequence of a regular SSR session

Activity	Description	Duration
Skimming the previous chapters and having a whole-class discussion	Skimming the previous chapter to remember what they had read in the previous session, and having a whole-class discussion with the instructor about the important events that took place	approximately 20-30’
Reading	Individual silent reading of graded readers they self-selected	approximately 50’
Reading activity	Engaging in activities related to the reading	approximately 50’
Reflection writing	Writing their reflections in the classroom environment by responding to the prompts provided for them	approximately 15-20’

As indicated earlier, the participants engaged in one reading activity each week (see Appendix A for the in-depth description of the activities) since “simply creating silent reading venues will not guarantee that students’ time will be used productively.” as stated by the National Reading Panel (NRP) report (2000, as cited in Hiebert, Samuels, & Rasinski, 2012, p.111). The list of the weekly activities can be examined in Table 4.10.

As indicated in Table 4.10, the participants in the SSR group engaged in book reading and in an activity related to their reading. The activity implemented in Week 1, for example, is described in Table 4.11:

Table 4.10

Summary of 10-week instruction for SSR

Session	Reading Activity
1	"Prediction of the book"
2	"I know what comes next" & Comparing their predictions with the events that take place in the book and presenting it to their group mates
3	"Writing a letter to one of the characters"
4	"Putting oneself in the shoes of a film director and naming famous actors and actresses for three characters from the book"
5	"What would you do if you were in the shoes of one of the characters in the book?"
6	"Putting oneself in the shoes of the author and advertising the book by preparing the poster of the book"
7	"The book and me"
8	"A different ending"
9	"Act it out!"
10	"Act it out!"

Table 4.11

A sample activity from the SSR instruction

"Predictions about the book" (Week 1) *Activity:* This activity requires readers to predict the details about the book by the characteristics of the book such as its blurb, cover page, etc., and to share their predictions and confirmation of expectations following the reading activity. *Source:* 101 Ideas for Extensive Reading and Listening (Extensive Reading Central) *Goal/ purpose:* The goal here is to activate their background knowledge and critical thinking to back up their arguments concerning the confirmation of expectations and to make predictions about the book. Moreover, this activity aims to help them feel more comfortable while sharing their ideas with others by encouraging them to talk about the books they read. *Procedures (for students and the teacher):* The students, before they start reading, are asked to make predictions about the book and write them down on a piece of paper. Then, they start reading the book. Afterward, the teacher asks them to read their own predictions and compare them to the content of the book that they have read, and think whether their predictions were correct or not. For example, they might, based upon the book blurb and the cover, predict that they are going to read a love story. However, in fact, the book might turn out to be an adventure. Then, they discuss it with their deskmates first and are invited to present this comparison to the class orally. The teacher provides the instructions for the activity as well as managing and monitoring the procedure by providing assistance where/when necessary. *Materials needed:* A graded reader/book, pen, paper.

A sample activity was described in Table 4.11. Each week, a different reading activity was administered after the 50-minute reading session throughout the 10-week treatment period. All of these were implemented in the classroom environment, and the instructor guided and directed the participants both before and after each reading activity (see Appendix A for the description of other reading activities).

4.6.1.1.2. Assisted Repeated Reading group.

The Assisted Repeated Reading treatment basically consisted of reading silently in a repeated manner with the audio support (i.e., reading-while-listening). The ARR participants read the texts in an assisted repeated manner, by reading each text three times. One of these three readings was accompanied by audio support, and their active reading time was fixed like SSR group participants (i.e., 50 min). They read the texts silently three times for a total of 10 treatment sessions, and all the participants read the same text.

Overall, the arrangement of each ARR session followed this procedure: In each session, first of all, the instructor distributed the graded readers to their owners. Upon receiving their readers, the participants (1) skimmed the previous chapter to remember what they had read the previous week in the last session, (2) had a quick whole-class discussion of the important events in the text led by the instructor, (3) read the text (chapter) silently *one time* for general comprehension, (4) then read the text silently for *the second time* whilst also by listening to the text from a CD player, (5) read the same piece of text silently for the *third* (i.e., final) *time*. Following these, (6) the researcher

introduced and they implemented the post-reading activity of that week (For a detailed list of the activities employed weekly, see Table 4.13) for the rest of the class hour, which mainly included discussing individualized comprehension questions, speaking, writing about the graded readers they were reading. And, for the last 15-minutes of the class time, (7) the researcher collected the graded readers back so that they would not continue reading either in the class or at home. Then, (8) she distributed a blank page on which the participants were asked to write their reflections, and the participants wrote their reflections and handed them in. (9) The researcher collected the reflection papers back and the session ended. As also depicted in Table 4.12, the sequence of a regular ARR session took place as such. The participants repeated these steps in each treatment session for a period of 10-week treatment. Throughout this process, the instructor provided assistance with unknown words, if/when necessary. Throughout this treatment period, the reading time in each session was constant: They read for 50 minutes in each session per week. The sequence of a regular ARR session is given in Table 4.12.

The researcher actively observed the participants while they were reading and managed the above-mentioned steps. All the participants followed the same procedure while reading the text. Like in the SSR group, the ARR group participants engaged in different reading activities each week (see Appendix A for a detailed list of the weekly activities) after the 50-minute-long reading time. Table 4.13 indicates the summary of 10-week instruction for the ARR group participants.

Table 4.12

Sequence of a regular ARR session

Activity	Description	Duration
Skimming the previous chapter	Skimming the previous chapter to remember what they had read in the previous session, and having a whole-class discussion with the instructor	approximately 20-30’
Reading#1	Unassisted individual silent reading	approximately 50’
Reading#2	Assisted individual silent repeated reading	
Reading#3	Unassisted individual silent reading	
Reading activity	Engaging in a reading activity and doing the related tasks	approximately 50’
Reflection writing	Writing their reflections in the classroom environment by responding to the prompts provided for them	approximately 15-20’

Table 4.13

Summary of 10-week instruction for ARR

Session	Reading Activity
1	“Predicting the book”
2	“I know what comes next” & Comparing their predictions with the events that take place in the book and presenting it to their group mates
3	“Writing a letter to one of the characters”
4	“Putting oneself in the shoes of a film director and naming famous actors and actresses for three characters from the book”
5	“What would you do if you were in the shoes of one of the characters in the book?”
6	“Putting oneself in the shoes of the author and advertising the book by preparing the poster of the book”
7	“The book and me”
8	“A different ending”
9	“Act it out!”
10	“Act it out!”

The instructional materials that were used with the ARR group were two graded readers—the ones with audio CDs—which were also available for the SSR group participants: *The Amsterdam Connection* and *Misery*. However, they were not allowed to take them home; that is, all the reading was done in the classroom environment as it happened in the SSR group. The treatment started with *The Amsterdam Connection* (Leather, 2001) (Genre: Murder mystery), which is a Stage 4 intermediate level (CEF Level B1) graded reader by Cambridge University Press. The participants read the chapters repeatedly in the above-described sequence from Session 1 to Session 7 (in seven sessions/weeks). In the last three weeks (i.e., weeks 8-10) they read *Misery* (King, 2008) (by Pearson English Readers) (Genre: Contemporary story) as their second graded reader, which is appropriate for CEF Level C1 students. Both of these graded readers (*The Amsterdam Connection* and *Misery*) were selected among the classroom library by using the following two criteria: (1) First of all, the readers should match the participants' level, and (2) they should accord with the interest of the participants. For the first criterion, the results demonstrated by Michigan EPT (2006) which had been administered at the beginning of the treatment was used. Since the proficiency level of the majority of participants matched to B1 level, the graded readers at Stage 4 (CEF Level B1) from the classroom library were picked up. As Carrell (1987) puts it, the difficulty/easiness of the reading materials is of vital importance: "If materials are too easy, students are unchallenged and bored, and no learning occurs; if materials are too difficult, students are frustrated and withdrawn, and again no learning occurs" (p. 21), which might accordingly demotivate learners. For the second criterion, the results of the open-ended questionnaire which had been given to participants in order to find out which genre they liked reading

were used. Taking into consideration these two criteria, the researcher decided on a mystery and crime book named *The Amsterdam Connection*. Upon finishing it, the participants started reading *Misery*, and this graded reader was also picked up by taking into consideration the above-mentioned two criteria. The reason behind choosing a Stage 6 reader (CEF Level C1) was that the majority of the participants had started to find the level of the previous book (i.e., The Amsterdam Connection—Stage 4) rather easy through the last sessions and required to read books at higher levels. Based upon the informal observations of the researcher, the participants had in fact started to read faster and with better comprehension; i.e., they had improved their fluency and comprehension. In order to decide on the next stage, the researcher copied one page from a Stage 5 (Dragons' Eggs, Cambridge University Press, CEF Level: B2) and a Stage 6 book (Misery, Pearson English Readers, CEF Level: C1), and distributed them to the ARR group participants for them to read and decide whichever book they liked to read. All of them chose to continue with Stage 6, and based upon this, they started reading chapters from *Misery*. In Table 4.14, the reading schedule for the ARR group regarding the details about the total number of word count the participants read per reader is described in detail.

Table 4.14

The weekly schedule for the ARR group

Session	Graded Reader	Chapter	Word count
1	The Amsterdam Connection	Chapter 1 and 2	19,110
2	The Amsterdam Connection	Chapter 3 and 4	
3	The Amsterdam Connection	Chapter 5 and 6	
4	The Amsterdam Connection	Chapter 7 and 8	
5	The Amsterdam Connection	Chapter 9, 10, and 11 (incomplete)	
6	The Amsterdam Connection	Chapter 11 (contd.), 12, and 13	
7	The Amsterdam Connection	Chapter 14, 15, and 16	
8	Misery	Chapter 1, 2, and 3	6,873
9	Misery	Chapter 4, 5, and 6	
10	Misery	Chapter 7 and 10	
Total			25,983

As can be seen, the reading materials included chapters from two different graded readers.

4.6.2. Comparison class focusing on traditional reading.

4.6.2.1. Traditional Reading group.

The traditional reading (TR) group participants engaged in traditional reading activities for a period of 10 weeks (i.e., 10 sessions). The instructional activities for the TR group included traditional reading activities such as skimming, scanning, translating, answering comprehension questions, follow-up writing activities as well as listening and follow-up speaking activities.

The instructional materials used in the TR group were extracts from the units of coursebooks Language Leader (by Pearson Longman) and Making Connections (by Cambridge University Press). They were short texts preceded by pre-reading and followed by post-reading activities. The topics and instructional materials collated for each week are displayed in Table 4.15:

Table 4.15

Weekly topics in the TR group

Session	Topic
1	Sleep
2	Advertising and brands
3	Education around the world
4	Tourism and travelling
5	Skills for the 21st century
6	Psychology
7	Architecture
8	Technology
9	Literature
10	Mysteries

Instructional procedures could be juxtaposed as follow: (1) The classes started with a few pre-reading tasks including prediction questions coupled with visuals (such as photographs and audios and videos) and discussion to activate students' schemata. Moreover, (2) vocabulary exercises, which aimed to pre-teach the key vocabulary prior to reading the text, were covered. Afterward, they (3) read the text silently and engaged in (4) post-reading comprehension questions and discussions. To sum up, the above-

mentioned reading instruction activities are similar to those widely-used in the Turkish EFL contexts.

4.7. Materials

4.7.1. Instructional materials.

The instructional materials in this study comprised (a) a reading textbook used for regular class hours, (b) reading materials for experimental classes, and (c) reading activities.

4.7.2. Data collection materials.

Data for this study came from both quantitative and qualitative data collection tools for triangulation purposes. The quantitative data came from (a) Michigan English Placement Test (EPT, 2006), (b) a comprehension and silent reading rate test, (c) two vocabulary level tests, and (d) a motivation for reading questionnaire (MRQ), all of which were administered both as a pretest before the treatment and as an immediate posttest after the treatment in paper and pencil format. The qualitative data, on the other hand, were obtained through (e) participant reflections which they wrote after each session, and (f) semi-structured focus-group interviews, and these data were used to support and/or clarify the statistical findings.

The following sections provide a detailed description of qualitative and quantitative data collection instruments.

4.7.2.1. Quantitative data collection

4.7.2.1.1. Michigan English Placement Test (EPT).

In order to determine the participants' English level, University of Michigan English Placement Test (EPT, 2006) was administered prior to the treatment and to the division of the groups. It is a placement test widely-used by universities to place university students (students learning English as a second language) into similar language ability levels. It is a pen-and-paper test and has basically four sections in which four different categories of questions are presented: listening comprehension (n = 20), grammar (n = 30), vocabulary (n = 30), and reading comprehension (n = 20) respectively. Test takers' overall receptive language proficiency is measured via the test. There are a total of 100 questions, and each correct answer is worth 1 point. The sections of the test, as well as the item types and their descriptions, are provided in Table 4.16.

Table 4.16

The description of item types in Michigan EPT (2006)

Section	Item type	Item type description	Sample item
Listening	Listening comprehension (*n* = 20)	Either a question or a statement is played via an audio player, and the test takers have to answer multiple-choice questions by choosing an option among three options. The test takers' understanding of spoken English is assessed.	Item 15 a. He wants her to take him b. She wants to take him c. She took him
Language in use	Grammar (*n* = 30) Vocabulary (*n* = 30)	For grammar, an incomplete short conversation between two people is presented in each item, and the test takers are required to choose the correct option that best completes the conversation. For vocabulary, a sentence with a missing word is given in each item, and the test takers are required to choose the word that best fits the sentence.	Item 26 (Grammar) "Which book did you take?" "The one _____ " a. that was on the table b. that on the table c. on the table was d. was on the table Item 78 (Vocabulary) Our hard work ___ us success. a. made b. pulled c. drew d. brought
Reading	Reading comprehension (*n* = 20)	A statement (a sentence) is given in each item, and a question is asked based on the statement. Based upon the question, test takers choose the correct option which best responds to the question asked.	Item 86 There have certainly been many books as honest as this one, but there have probably been only a few as sensitive. The book is remarkable because of its___. a. length b. originality c. honesty d. sensitivity

Michigan EPT (2006) was administered in the present study both to determine the participants' level of English, and to make sure there were not any pre-existing differences across the treatment groups prior to the study. The Common European Framework of Reference (CEFR) (Council of Europe, 2001) and skills level scores of the test with respect to the test score bands are presented in the chart given in Table 4.17.

Table 4.17

CEFR and Skills Level Scores of Michigan EPT (2006) (adapted cut scores based on the concordance table reported in Michigan EPT, 2012 version)

CEFR Level Scores		Skills Level Scores	
A1	0-34	Beginner	0-29
A2	35-44	Beginner (high)	30-46
B1	45-62	Intermediate (low)	48-60
B2	64-73	Intermediate	61-74
C1	74-100	Advanced (low)	76-84
		Advanced	85-100

As can be seen from Table 4.17, the score bands are divided into five levels in accordance with the CEFR level scores: A1, A2, B1, B2, and C1, and six levels in accordance with the following skill level scores: beginner, beginner (high), intermediate (low), intermediate, advanced (low), and advanced. For example, a participant who has a score of 50 points (out of 100 points) from this test falls within the category of CEFR level B1 and skill level intermediate (low).

4.7.2.1.2. Reading comprehension and silent reading rate test.

The participants' reading comprehension and silent reading rate were measured through a test comprising four different texts, and the same test battery was applied both as a pre and as an immediate post-test (see Appendix D). The texts in the reading comprehension tests were also used to measure the participants' comprehension based silent reading rate since "comprehension and rate are inseparable" (Hiebert et al., 2012, p. 111). To be more precise, the passages in the reading comprehension test (PTE General reading texts) were used for two purposes: both for measuring the reading comprehension level and silent reading rate of the participants since "reading speed is worthless unless the reader has understood what he has read" (Nuttall, 1987, p. 37). Moreover, as Chang and Millett (2013) noted, "If comprehension is not assessed, learners may simply scan a text." (p. 128).

The texts were adopted from the reading sections in the written test of the Pearson Test of English General (PTE General). PTE General is a general English test comprising six-levels of proficiency which are aligned with the Common European Framework of Reference for Languages (CEF) (Council of Europe, 2001): Foundation Level (A1), Level 1 (A2), Level 2 (B1), Level 3 (B2), Level 4 (C1), and Level 5 (C2) (http://pearsonpte.com/pte-general/). It is globally recognized testing the four skills (i.e., reading, writing, listening, speaking), and it mainly consists of two test formats: the spoken and the written test. The spoken test includes listening and speaking skills whereas the written test includes reading and writing skills. For the purposes of the study,

the reading sections were used for collating the reading comprehension and silent reading rate test.

Of six levels, texts from B1 (Level 2) and B2 (Level 3) CEF levels were collated, both of which are for intermediate level English learners. The texts from the lowest levels (i.e., Foundation Level and Level 1, aligned with CEF levels A1 and A2 respectively) or the highest levels (i.e., Level 4 and 5, aligned with CEF levels C1 and C2 respectively) were not included in this study since these levels did not match the participants' level (as illustrated by PTE General), the majority of whom were intermediate and upper-intermediate level learners.

Each level included two texts in order to avoid topic bias, and the test battery comprised four texts and a total of eighteen items. In each level (i.e., Level 2 and Level 3), there are nine items, five of which are multiple-choice and four of which are open-ended question types respectively (see Table 4.18). Multiple choice item type comprises three options: There is only one correct answer, and the remaining two are distractors. Each passage in the test was printed on a double-sided sheet with the texts on the front and the comprehension questions on the back. The battery of comprehension questions in each text—both for multiple choice and open-ended item type—started with an example question with its answer marked on the paper as depicted in Figure 3 and Figure 4:

Example: What do we learn about Camp Belmont?

A. It's the oldest camp in the United Kingdom
B. It's been operating for a quarter of a century (correct answer)
C. It's operated by a company based in the U.S.A.

Figure 3. Example multiple choice question item type with its answer

Example: When is “City Action 3” going to be released?

_____next month_____

Figure 4. Example open-ended question item type with its answer

In the test, each correct answer is worth 1 point; that is, the scores the participants can get from the reading comprehension test ranged between 0 and 18. In Table 4.18, the details about the reading comprehension test are presented.

Table 4.18

PTE General reading comprehension tests and the proficiency levels

PTE Level	Proficiency level	CEF Level	Texts	Item Type	*n* of Items
L2	Intermediate	B1	Camp Belmont (Text 1)	Multiple choice Open-ended	5
			Weston Wins Again (Text 2)		4
L3	Upper-intermediate	B2	The Early Career of James Whitton (Text 3)	Multiple choice Open-ended	5
			Bristol International Airport (Text 4)		4
Total *n* of items					18

As indicated in Table 4.18, the participants read four texts and answered 18 questions both in multiple choice and open-ended question format. Of four texts, two of them were aligned with CEF Level B1 and the other two were aligned with CEF Level B2. There were nine questions to answer in each level.

The readability statistics of the texts used for measuring reading comprehension, which includes Flesch-Kincaid Reading Ease, Flesch-Kincaid Grade Level, and Automated Readability Index as well as the word and character count, were also calculated. These are provided in Table 4.19. The length of the text ranged from 295 to

347 words, and from 105 to 140 words for the texts followed by multiple-choice and open-ended questions respectively.

Table 4.19

Reading Ease and Grade Levels of the Passages in the Reading Comprehension Test

			Readability formula			Readability Formula	Reading time (Reading time is based on 225 words per minute, or 125 words per minute for speaking aloud.)
Text	Word count	Character count	Flesch-Kincaid Grade Level	Automated Readability Index	Average Grade Level	Flesch-Kincaid Reading Ease	
Text 1	295	1.340	6.5	7	8.8	73.6	1:18
Text 2	105	495	7.3	6	8.6	61.6	00:28
Text 3	347	1.760	11.4	12.7	13.3	49.3	1:32
Text 4	140	722	7.2	8.2	9.6	62.4	00:37

Flesch-Kincaid Reading Ease and Flesch-Kincaid Grade Level are considered as the oldest and the most accurate formulas indicating the difficulty level of a text in English. These two classifications are based on factors such as word and sentence length, and syllable count. For the Flesch-Kincaid Reading Ease formula, a score ranging between 1-100 is generated, higher scores indicating easier texts. The Flesch-Kincaid Grade Level on the other hand refers to the school grade level at which those certain texts can be read. For example, a score of 7.3 for Flesch-Kincaid Grade Level means that the students who are in grade 7 can read the given piece of text. When Table 4.19 presented above is examined, it can be seen that the Flesch-Kincaid Reading Ease and Grade Level measures are close to each other.

4.7.2.1.3. Vocabulary Levels Test

The vocabulary levels of the participants were measured on two bases; both their receptive and productive vocabulary knowledge were measured. To be more precise, receptive knowledge of association (i.e., receptive vocabulary) and controlled productive vocabulary knowledge (i.e., productive vocabulary) were measured. To this end, Nation's (1990) Vocabulary Levels Test, and Laufer and Nation's (1999) Vocabulary Levels Test were adopted for measuring receptive and productive vocabulary knowledge respectively, both of which measured the breadth of vocabulary knowledge (i.e., vocabulary size).

4.7.2.1.3.1. Receptive vocabulary test.

For the purposes of the study, Nation's (1990) Vocabulary Levels Test was adopted for measuring the receptive vocabulary knowledge of the participants.

It is a matching test distributed mainly into five levels: the 2000 (2K), the 3000 (3K), the 5000 (5K), the 10000 (10K) word levels, and the University Word List (UWL) level. In each level, there are six questions. In each question, a group of six words (six stems; three of which are extra) and another group of three words (or stems) indicating a definition or a synonym of the target words are presented on the left and on the right successively. The test takers are required to match the words in isolation on the left with the words on the right by considering their definition or synonyms. A sample question from 2K-level is illustrated in Figure 5:

1. original	
2. private	__a. complete
3. royal	__b. first
4. slow	__c. not public
5. sorry	
6. total	

Figure 5. Sample item from the 2K level from the receptive vocabulary test

As seen from Figure 5, there are three target words on the right within that question (i.e., a. complete, b. first, and c. not public). At the same time, there are six other words (i.e., 1. original, 2. private, 3. royal, 4. slow, 5. sorry, 6. total) with which the ones on the right should match. The closest meaning of the target word "complete" is "6. Total", whereas "first" refers to "1. original", "not public" refers to "2. private". The test takers are just required to write down the number of the word on the right, which refers to the word placed on the left. Since it is a matching test, multiple answers to an item are not possible. Moreover, including three distractors in addition to the three correct answers is considered to promote test-takers to respond to items with reasoning. Each item is marked as either correct or incorrect. For each correct answer, 1 point is awarded, and the maximum score one can take from this test is 90 points (18 items x 5 levels). Moreover, Kuder-Richardson 20 analysis showed that the test had a high level of reliability (KR-20 = .87).

4.7.2.1.3.2. Productive vocabulary test

The productive Vocabulary Levels Test (Laufer & Nation, 1999) was used to measure the participants' productive vocabulary knowledge.

The productive vocabulary levels test is a controlled cued recall completion test, which was chosen due to its structural similarity to the test that was used for measuring receptive vocabulary knowledge. Although the words included in two tests were not the same for exact comparability (i.e., they did not include the same target words), the productive Vocabulary Levels Test (Laufer & Nation, 1999) also included five frequency bands: 2K, 3K, 5K, 10K, and the University Word List (UWL) level-like the receptive vocabulary test. There are 18 items in each level and a total of 90 items. For each item in the test, a sentence in a meaningful context including an incomplete word is given where the subsequent letters of that word are retained whereas its few initial letters are presented. And, the test takers are required to read and understand the sentence and are expected to fill in the missing letters by using the clues (i.e., the context and the first few letters). Figure 6 demonstrates a sample item from the 10K level:

The evac_____ of the building saved many lives.

Figure 6. Sample item from the 10K level from the productive vocabulary test

As indicated in Figure 6, there is a sentence which includes the target word. From the context and the given first few letters, it involves producing and completing the missing letters. For that item, in this circumstance, the answer would be "evac<u>uation</u>". Since it is a completion test, the test takers are required to complete the target word. Major spelling mistakes are not tolerated. And, each correct answer is awarded 1 point, and the score one can get from this test ranges from 0 to 90. Also, the Kuder-Richardson 20 analysis showed that the test had a high level of reliability (KR-20 = .87).

4.7.2.1.4. Motivation for Reading Questionnaire

With an aim to measure the participants' reading motivation, Motivation for Reading Questionnaire (MRQ) (Wang & Guthrie, 2004) was adapted (see Appendix E for the adapted items) and then piloted by the researcher with a similar group of participants (i.e., with freshman students enrolled in the same department) prior to the study. The Cronbach's Alpha value for the questionnaire was .92, indicating a high level of internal consistency. The original MRQ had been developed by Wigfield and Guthrie (1997), yet it was then revised by Wang and Guthrie (2004). For the purposes of the study, the revised version of the MRQ by Wang and Guthrie (2004) was adapted. Their MRQ encompassed two constructs (i.e., intrinsic and extrinsic motivation) and eight dimensions (i.e., *Curiosity, Involvement, Preference for Challenge, Recognition, Grades, Social, Competition, Compliance*) comprising a total of forty-five items. Two items (i.e., "I often like to read to my brother or my sister" and "I sometimes read to my parents") were excluded in this study since these were irrelevant for this group of participants, considering that the participants in this study were university-level EFL learners and had no younger siblings. Moreover, one item was reworded: The item "I like having *my parents* often tell me what a good job I am doing in reading" in the *Recognition* dimension was changed into "I like having *people around me* often tell me what a good job I am doing in reading". Likewise, in the *Grades* dimension, the item "I like *my parents* to ask me about my reading grade" was adapted into "I like *others to* ask me about my reading grade". Lastly, in the *Social* dimension, the item "I like to visit the library often with *my family*" was reworded as "I like to visit the library often with other *people*".

The adapted questionnaire similarly involved two constructs (i.e., intrinsic and extrinsic motivation) and eight dimensions (i.e., *Curiosity, Involvement, preference for challenge, Recognition, Grades, Social, Competition, Compliance*), and comprised 41 items in total. The questionnaire was also aligned to a 5-point Likert scale ranging from 1 "Totally Disagree" to 5 "Totally Agree". From Table 4.20 below, the type of motivation and the dimensions can be examined:

Table 4.20

Motivation for Reading Questionnaire

Construct	Dimensions	*n* of items
Intrinsic motivation	Curiosity	7
	Involvement	7
	Preference for challenge	5
Extrinsic motivation	Recognition	5
	Grades	4
	Social	4
	Competition	6
	Compliance	3

As can be seen from Table 4.20, three dimensions were identified for intrinsic motivation which comprised the following underlying factors: "*Curiosity"*, "*Involvement"*, and "*Challenge"*. The dimension labeled as *Curiosity* included seven items (e.g., "I like to read about new things") which probed their curiosity to read in English. Wigfield (1997) defines curiosity as "the desire to learn about a particular topic of personal interest" (pp. 22-23). The *Involvement* dimension encompassing seven items (e.g., "I make pictures in

my mind when I read") concerned the "enjoyment experienced from reading" (Baker & Wigfield, 1999, p. 2). Consisting of five items, *Preference for Challenge* dimension which refers to "the satisfaction of mastering or assimilating complex ideas in text" (Wigfield, 1997, pp. 22-23) concerned items investigating the readers' preference for challenge while reading (e.g., "If a book is interesting, I don't care how hard it is to read"). Apart from intrinsic motivation, five dimensions (i.e., "*Recognition, Grades, Social, Competition,* and *Compliance"*) were identified for extrinsic motivation. Extrinsic motivation included the following underlying factors: "*Competition"*, "*Compliance"*, "*Recognition for reading"*, "*Grades"*, and "*Social"*. The dimension *Recognition* was about the readers' willingness for being recognized for their reading (e.g., "I am happy when someone recognizes my reading") and included five items. It refers to "the pleasure in receiving a tangible form of recognition for success" (Wigfield, 1997, pp. 22-23). The *Grades* dimension included four items (e.g., "I like to read to improve my grades") and concerned "the desire to be favorably evaluated by the teacher" (Wigfield, 1997, pp. 22-23). The *Social* dimension consisting of four items (e.g., "I like to talk to my friends about what I am reading") explored the social aspect of reading. It specifically refers to "the process of sharing the meanings gained from reading with friends and family" (Wigfield, 1997, pp. 22-23). The dimension labeled as *Competition* which refers to "..the desire to outperform others in reading" (Wigfield, 1997, pp. 22-23) included six items (e.g., "I like being the best at reading") and concerned the competitive aspect of reading. And the *Compliance* dimension referring to "reading because of an external goal or requirement" (Wigfield, 1997, pp. 22-23) included three items (e.g., "I always do my reading work exactly as the teacher wants it") and investigated the compliance of readers.

4.7.2.2. Qualitative data collection.

4.7.2.2.1. Participant reflections.

For participant reflections, a blank sheet and the following list of questions were provided for the participants by the instructor:

1. What are the things I learned today?
2. In what areas of English language I made improvements?
3. In what areas of the English language can I improve in the following weeks?
4. How do I feel about my reading experience today? Was it a positive or negative experience?
5. Are there any other issues I would like to express?

The participants were asked to write about their reading experience taking the above questions into consideration. Each participant wrote a total of 10 reflections throughout the 10-week treatment period.

4.7.2.2.2. Semi-structured focus-group interviews.

Another source of data in this study was semi-structured focus-group interviews. One of the reasons for implementing focus-group interviews in this study was to create a more candid environment for the participants and to help them provide detailed responses to the interview questions by promoting the interaction within the focus groups. As Hatch (2002) notes, “being interviewed in groups gives informants a sense of security and

comfort that may lead to more candid and reflective responses than in individual interviews" (p. 132).

All the participants (*N* = 41) from three experimental groups were invited to attend the interviews immediately after the treatment ended. During the interview sessions, the interviewees were asked a total of 16 semi-structured open-ended interview questions (see Appendix F) which were categorized into five sub-headings, each investigating their attitudes toward the treatment: 1. Reading habit, 2. Graded readers, 3. Reading activities, 4. Improvement, 5. Reading motivation/ Attitudes. The aim was to reveal their attitudes toward the reading practices (i.e., SSR, ARR, and TR) as well as to reveal their attitudes toward reading in L2. The interview categories were adapted from Suk's (2015) categorization of interview questions.

4.7.2.2.3. Researcher's field notes and research journal.

Data also came from the researcher's field notes and the researcher log she kept focusing on her research experience.

With respect to the instructional and experimental procedures, the researcher kept short field notes subsequent to each treatment session, which were both descriptive and reflective in their nature. She both focused on the detailed explanation of the instructional and experimental procedures as well as on her observations and reflections in relation to each treatment session. Following the suggestions made by Hatch (2002), she first wrote raw field notes during the treatment session, including keywords and ideas to remember later. After the treatment sessions (i.e., leaving the field), she expanded those raw notes

by converting them into detailed descriptions of what happened during the instructional and experimental procedures, by also keeping it like a research journal (Hatch, 2002).

4.8. Data Collection Procedure

Data for this study were collected in the 2016-2017 academic year Fall term over a period of 10 weeks from September to December 2016.

At the beginning of the semester, the (a) Michigan English Placement Test (EPT) was administered to the participants before the beginning of instruction. Following it, just before the 10-week treatment commenced, the pre-test battery including the (b) reading comprehension and silent reading rate test, (c) vocabulary level tests, and (d) a motivation for reading questionnaire (MRQ) were respectively administered to the participants by the researcher. The pre-tests were administered at the beginning of the semester (i.e., in Week 1 and 2), and having completed the pre-tests, the treatment procedure started in three groups (SSR, ARR, and TR) (i.e., Week 3). All the participants took part in the treatment sessions for three 50-minute class hours, once a week, for a 10-week period, and the treatment period was only interrupted for one week which was the midterm exam week (i.e., Week 8).

Throughout the 10-week treatment, the participants in all three groups (i.e., SSR, ARR, and TR) were asked to reflect upon their learning experience. Participant reflections were written weekly subsequent to each treatment session, and approximately the last 15-20 minutes of the treatment time in weekly treatment sessions was allocated for reflection writing. The aim was to investigate their reflections and attitudes toward each type of treatment (SSR, ARR, and TR) as well as to investigate and keep track of

the attitudinal changes they experienced (if any) throughout this period. The participants were asked to respond to some questions (see section 4.6.2.2 Qualitative Data Collection) after each treatment session, but they were discouraged to provide specific answers for each question in bullet points.

They wrote their reflections in the classroom environment and handed them in to the instructor at the end of each treatment session. They were told that they could write a comprehensive reflection in which the answers to those questions are provided, and write as if they had been writing a diary entry. They were also informed that they were free to pick whichever language (L1 or L2; i.e., in Turkish or in English) they would like to write their reflections in, and that their language mistakes would be ignored if they would write in their L2 (i.e., English). A minimum or maximum word limit was not set for them, yet they were encouraged to write about their feelings in depth and sincerely. The reflections varied in length, yet each participant wrote a total of 10 reflections throughout the 10-week treatment period. The details about the prompts provided to the participants were described in the previous section (see Data Collection Instruments).

In the last week of the semester (i.e., Week 14), the same test-battery administered as a pre-test was administered to the participants as an immediate post-test. Furthermore, in order to unveil the perspectives of the participants about the treatments they received, all participants from all the three groups were invited for interview sessions by the researcher in focus-groups. Rather than having an interview with each participant, the researcher—who taught the course both as the researcher and instructor—had focus-group interview sessions (see Appendix F for interview questions) after the completion of the treatment on the same day at the end of the semester. The participants

in each treatment group were randomly divided into focus groups for the interviews, and each interview session lasted from 15-30 minutes—for an average of 20 minutes. A total of six interview sessions, each of which includes 6-8 randomly selected participants from the same treatment group, were designated. The interviews, which were approximately a total of 120 minutes long, were conducted and audio recorded by the researcher. The interviews were conducted in the classroom environment in Turkish—in the language they preferred, in their mother tongue—so that the participants would feel comfortable and express their open-hearted feelings and attitudes toward the sustained silent reading, assisted repeated reading and traditional reading practices. The sessions started by asking general questions and then continued with the follow-up questions inquiring into their experience with the practices implemented and their attitudes toward them. The tone of the interviews was also informal. As indicated in Table 4.21, the data collection followed this sequence.

Table 4.21

The sequence of data collection

Group		Treatment (for 10 weeks)		Focus-group Interviews
Sustained silent reading		SSR + TR		
Assisted repeated reading	Pre-tests (Week 1&2)	ARR + TR	Post-tests (Week 14)	with all the participants
Traditional reading		TR		

Note. SSR = Sustained silent reading, ARR = Assisted repeated reading, TR = Traditional reading.

4.9. Data Analysis

Quantitative data obtained from the present study were analyzed by the software Statistical Package for Social Sciences (SPSS) whereas qualitative data were analyzed by the latent content analysis described by Dörnyei (2007). However, before the analysis of the data, a marking process was planned and administered by the researcher and an external coder.

4.9.1. Marking process.

The researcher and an external coder had a meeting before the marking process, in which the researcher informed the external coder about the procedure and they discussed the possible answers which might cause disagreements. The marking process for each data collection instrument was as follow: Regarding the *(a) reading comprehension and silent reading test*, the data were analyzed separately. With respect to *reading comprehension,* the answers to the multiple choice questions were checked by the researcher by assigning 1 point for each correct answer whereas the answers to the open-ended questions were checked by the researcher and an external coder. The answers to the open-ended questions were marked for whether they match the answer or not, and spelling mistakes and simple grammatical mistakes were ignored as long as the answers responded to the questions. Regarding the *silent reading rate*, the participants' silent reading rate (words per minute) was averaged by taking the mean of the time records of those four texts. As a unit of time, time records were kept in the form of minutes and seconds. First, the minutes were converted to seconds, and the total amount of seconds

were calculated for each text. The word per minute (wpm) for each participant was calculated by the following formula as follow: *Words per minute* = (Number of words read x 60) / time spent for reading (in seconds). For example, assuming that a participant read a 300-word text, which took 2 minutes and 40 seconds for her/him to read it. By using the formula presented above, the time spent for reading the text should first be converted into seconds. In our example, it would be (2 x 60) + 40 = 160 seconds. In order to calculate the wpm for that participants, the data would be placed into the formula as follow: *Words per minute* = (300 x 60) / 160 = 112 wpm. This means that this participant read 112 words per minute. Regarding the *(b) receptive vocabulary test,* the answers to the matching items were checked by the researcher. For each correct answer, 1 point was awarded, and the answers were double-checked by an external coder. Regarding the *(c) productive vocabulary test,* which was a completion test, the answers were checked by the researcher and an external coder. In the marking criteria of the productive test, both grammatical and minor spelling mistakes were tolerated as long as those spelling mistakes did not mean another word. Likewise, 1 point was awarded for each correct answer. Regarding the *(d) motivation for reading questionnaire,* which was a 5-point Likert scale, the data were first inspected for missing values and were then entered into SPSS.

The marking procedure for the quantitative data which came from multiple instruments followed these steps. Followed by the marking process, all the responses, as well as total raw scores, were entered into SPSS and the data were analyzed following a different set of procedures. The following section—divided into two as quantitative and qualitative data analysis—provides a thorough explanation of the data analysis procedure.

4.9.2. Quantitative data analysis.

As presented earlier in this chapter, the quantitative data came from (a) a reading comprehension and silent reading rate test, (b) two vocabulary level tests, and (c) a motivation for reading questionnaire administered both as a pre and as an immediate post-test. For the quantitative analysis, the data were initially entered to the SPSS software and were then inspected by the researcher for the missing responses in the dataset. After this process, the data were analyzed with the help of SPSS software.

The analysis of the data first included preliminary analyses such as obtaining the descriptive statistics for each test. Then, the distribution of scores was plotted and the raw scores were converted into Z-scores. By using the Z-scores, the normality of the data set was investigated through calculating the Skewness and Kurtosis coefficients as well as the Shapiro-Wilk test of normality (Shapiro & Wilk, 1965) and histograms. For measuring the internal consistency of each test, the reliability coefficients (Cronbach's Alpha) for each test were then calculated. The Z-scores were also used for dividing the participants into low and high proficiency sub-groups within each treatment group. The raw scores of Michigan EPT were first converted into Z-scores and the ones who fall below the mean were labeled as low whereas the ones who fall above the mean were labeled as high proficiency learners.

Besides investigating the normality of the data set, the data for each test were also investigated to check whether the three treatment groups significantly vary at the pre-test via a Kruskal Wallis H test. If significant differences were found across the treatment groups at the pre-test, one-way Analysis of Covariance (ANCOVA) was administered by statistically controlling the differences at the pre-test as a covariate and adjusting them.

Research question 1: *Is there an effect of three different treatments, namely sustained silent reading (SSR), assisted repeated reading (ARR) and traditional reading (TR) on EFL learners' (1a) reading comprehension and silent reading rate?, (1b) vocabulary knowledge? (1c) reading motivation and (1d) attitudes toward reading at two different proficiency levels?* Regarding this question, to further explore the main effect of time, within group differences (the pre and post-test differences within groups) were investigated by using nonparametric Wilcoxon Signed-rank test. Furthermore, to determine the strength of the effects, the effect size statistics were also calculated by determining the *r* value (Rosenthal, 1994) which is used for the Wilcoxon signed rank test. The following equation was used to determine the *r* value: $r = Z / \sqrt{N}$. Then, Rosenthal's (1994) conventions [$r = .10$ (small effect size); $r = .30$ (moderate effect size); $r = .50$ (large effect size)] were used to interpret the effect sizes.

Research question 1.1.: *Within the same treatment group, does the effect of SSR, ARR, and TR treatments on EFL learners' (a) reading comprehension and silent reading rate, (b) vocabulary knowledge, and (c) reading motivation significantly vary according to two different proficiency levels (i.e., low and high proficiency participants)?* and Research question 1.2.: *Is there a difference among low-proficiency and high-proficiency EFL learners in terms of their gains across SSR, ARR, and TR treatments regarding their (a) reading comprehension and silent reading rate?, (b) vocabulary knowledge?, (c) reading motivation?*. To answer research questions 1.1. and 1.2. which aim to investigate the effect of proficiency (i.e., low and high proficiency) within and across groups, a nonparametric Kruskal-Wallis H test was administered. If significant differences were

found, pairwise comparisons were made by using the nonparametric Mann-Whitney U test.

Research question 2: *Is there a relationship among L2 reading comprehension, silent reading rate, receptive and productive vocabulary knowledge, and reading motivation? If so, what is the nature of the relationship among these variables?*. This question aimed to investigate the relationship among the dependent variables in this study. Since the data of some variables are not distributed normally violating the Pearson product-moment assumption of normal distributions and due to the small sample size ($n \leq 30$) in this study (Bachman, 2004), Spearman rank correlation coefficient (Spearman *r*) was run.

Research question 3: *What are the predictors of L2 reading comprehension?*. To answer this question, a multiple regression analysis was run. Different from correlational analysis, regression "is used to predict a score on one variable from a score on the other." (Tabachnick & Fidell, 2012, p. 57).

4.9.2.1. Assumptions for statistical analyses.

Before running the analyses, the assumptions for the statistical analyses were checked. Before all the analyses, the entire data were first screened by the researcher for the accuracy of the data and the missing data in the data set. The researcher also screened the test results for normality. The assumptions were checked using Bachman's (2004) and Tabachnick and Fidell's (2012) assumptions. The assumptions for each statistical analysis are discussed as follow:

For conducting multiple regression analysis, the assumptions of normality, linearity, homoscedasticity, outliers, and absence of multicollinearity and singularity were checked.

Due to the small sample size and non-normal distribution of the data, non-parametric analyses namely, Kruskal-Wallis H test, Mann-Whitney U test, and Wilcoxon signed rank test were also used to analyze the data.

Moreover, the assumptions of Spearman rank correlation analysis were also checked. There are two assumptions for running Spearman rank correlation analysis: (1) The relationship between the variables should be linear, and (2) the variables constitute at least an ordinal scale (Bachman, 2004, p. 88). The strength and the direction of the relationship between two sets of scores are determined by the correlation coefficient (r). The values for correlation coefficient can vary between -1 (negative one) and +1 (positive one), in which a positive correlation coefficient refers to a direct relationship whereas a negative correlation coefficient refers to an opposite relationship (Bachman, 2004), which indicates the direction of these relationships. For example, +1 indicates a perfect relationship between variables. Furthermore, the closer the correlation coefficient is to 1, the stronger the relationship between the two variables can be, which indicates the strength of the relationship. In a similar vein, values closer to .00 indicate no relationship between those two variables.

4.9.3. Qualitative data analysis.

4.9.3.1. Qualitative content analysis.

The research questions probing into the qualitative data aimed to investigate the attitude changes among participants. The data which came from participant reflections and semi-structured focus-group interviews were analyzed by using qualitative data analysis protocols. However, first of all, the participant reflections were initially typed into a Microsoft Word document. While typing the reflections, the researcher did not make any changes to participants' writing (e.g., grammar or spelling mistakes). Similarly, semi-structured focus group interviews were first transcribed by the researcher and typed into the word processing document.

The qualitative data were analyzed by Dörnyei's (2007) four-phased procedure for qualitative data analysis. All the qualitative data were (a) pre-coded and coded by the researcher and an external coder, (b) the ideas were grown, and (c) the data were interpreted and conclusions were drawn (Dörnyei, 2007). The qualitative data analysis followed inductive reasoning through an exploratory state of mind. That is to say, no predefined protocol was used in executing the analysis.

After the training, participant reflections and field notes were first collated and typed into a word processing document. Then, audio-recorded focus group interviews were transcribed by the researcher, and 50% of the entire qualitative data were shared by an external coder. The content analysis was carried out with an external coder who is a TEFL teacher with MA, yet who did not or was not involved in the project during data collection. The procedures for content analysis training could be enumerated in five

steps: *Step 1. Reading the qualitative data independently, Step 2. Meeting and discussing the data, Step 3. Detecting the agreements and disagreements between the researcher and the external coder, and resolving the disagreements and Step 4. Analyzing the rest of the qualitative data together based upon the discussion.*

As a next step, all the qualitative data were analyzed to determine the recurring patterns by the researcher and the external coder. They read all the data and pre-analyzed them by reading the transcriptions many times to get the general sense of them. Accordingly, the process involved "highlighting extracts of the transcribed data and labeling these in a way that they can be easily identified, retrieved, or grouped" (Dörnyei, 2007, p. 245). After the data were analyzed by the researcher and the external coder, a rubric was then developed by the researcher, and in light of the rubric, the qualitative data were cross-checked by two coders—both by the researcher and by an external coder. The reflections the participants wrote throughout a 10-week period were examined in the order they were written: starting from the first week of the treatment (i.e., Session 1) to its last week (i.e., Session 10).

Based on the analysis, the ideas were grown by reading and rereading the qualitative data. By doing so, coders tried to "pin down their key themes and, thereby, to draw a picture of the presuppositions and meanings that constitute the cultural world of which the textual material is a specimen" (Perakyla & Ruusuvuori, 2011, p. 530). The researcher and the external coder pre-analyzed the data separately, yet they came together to analyze the data together. All the data were reread together and interpreted by the two coders in a long meeting; that is, check-analysis was done. After deciding upon the recurring patterns after the analysis and discussion session, the researcher and the

external coder determined the key quotations, all of which derived inductively from the data analyzed (Dörnyei, 2007). Any discrepancies which occurred between the two coders were discussed further in order to ensure agreement.

4.10. Chapter Summary

This chapter has presented the methods and procedures that were employed to collect and analyze the data for the present study. The results of data analysis are given in the following chapter (Chapter V).

CHAPTER V

RESULTS

5.0. Introduction

This chapter reports the results of the quantitative data analysis for the purposes of the research questions posed in this study. In the chapter, the results of (a) the preliminary analyses and (b) the quantitative data are presented.

5.1. Preliminary Analyses

This section reports the results of the preliminary analyses including descriptive statistics regarding the amount of reading they received throughout the 10-week treatment.

The participants in the SSR group read graded readers over a 10-week treatment, and the total number of words that the participants read ranged between 43.928 and 117.960 words, with a mean of 65.524 words (*SD* = 21,479). The title of the graded readers with their word counts that each participant in the SSR group read as well as the total word count read by each participant are presented in Table 5.22.

Table 5.22

Descriptive statistics for individual and average amount read by the SSR group

No	Participant	The number of books the participant read		Total word count read by the participants
		n of books completed	*n* of books incomplete	
1	Participant 1	5	2	103.592
2	Participant 2	4	1	52.140
3	Participant 3	2	1	43.928
4	Participant 4	3	-	87.584
5	Participant 5	2	1	52.770
6	Participant 6	2	3	58.740
7	Participant 7	3	1	49.165
8	Participant 8	3	1	54.775
9	Participant 9	1	2	56.710
10	Participant 10	4	3	117.960
11	Participant 11	3	-	55.126
12	Participant 12	2	-	51.920
13	Participant 13	2	2	60.157
14	Participant 14	4	1	61.718
15	Participant 15	3	1	76.589

The SSR group participants read graded readers from different publishers including Oxford Bookworms Library, Pearson Readers, Heinemann Guided Readers, and et cetera at different stages. The participants were free to change the graded reader whenever they wanted; thus, some participants did not finish reading their books. However, based on their reading logs, the approximate number of words read by the participants was calculated.

On the other hand, the participants in the ARR group approximately read 25,983 words over a 10-week treatment. As shown in Table 5.23, they read approximately two graded readers.

Table 5.23

The total number of word count for the ARR group

Book	Word count
The Amsterdam Connection (by Sue Leather- Cambridge University Press) (L4)	19.110
Misery (by Stephen King- Pearson) (L6) (Incomplete)	6.873
Overall	25.983

Note. L4 = Level 4; L6 = Level 6.

On the other hand, the TR group participants did not read graded readers; rather, the materials were units including short texts from commercial English course books. Table 5.24 below demonstrates the total amount of words read by the participants.

Table 5.24

The total number of word count for the TR group

TR group	Number of words read
Overall	8.866

Note. TR group = Traditional reading group

Overall, the participants in the SSR group read more than the other groups over a 10-week treatment. The comparison of the word counts across the experimental groups is reported in Table 5.25.

Table 5.25

Amount of words read by the experimental groups

Group	N of words (*M*)	*SD*	*n*	Minimum	Maximum
Sustained Silent Reading	65.524	-	15	43.928	117.960
Assisted Repeated Reading	25.983	-	14	-	-
Traditional Reading	8.866	-	12	-	-
Total		-	41	-	-

5.2. Quantitative Data Results

As previously described in-depth in the methodology chapter (Chapter 4), the quantitative data which came from several measures including (a) a reading comprehension and silent reading rate test, (b) two vocabulary levels tests, and (c) a motivation for reading questionnaire (MRQ) were analyzed via SPSS. The data were analyzed after the inspection for any missing point. The Z-score values were used for determining univariate outliers by examining the normal distribution of scores. Accordingly, all the raw scores were converted into standard Z-scores, and the data were checked for normality. The Z-scores which were between three standard deviations below or above (± 3) the mean (Mertler & Vannatta, 2005) were checked to avoid distortion of the data, yet there were not any values which exceeded this range.

In order to answer the research questions posed in the study regarding the participants' reading comprehension and silent reading rate, receptive and productive vocabulary knowledge, and their motivation for reading, as well as to investigate whether there are any differences within and between the treatment groups, a number of different analyses including descriptive statistics analysis, Wilcoxon signed rank test, Mann Whitney-U test were run. Statistical significance was set to 0.05 ($p \leq 0.05$) for all the quantitative analyses.

Overall, this section presented the preliminary analyses. The next sections present the main analyses focusing upon the results of the quantitative data, which are presented in light of the research questions.

5.2.1. Reading comprehension and silent reading rate.

Research Question 1(a). Is there an effect of three different treatments, namely sustained silent reading (SSR), assisted repeated reading (ARR) and traditional reading (TR) on EFL learners' reading comprehension at two different proficiency levels?

Research question 1(a) aimed at investigating the effect of three types of treatments on the participants' general reading comprehension skills. First of all, a Kruskal-Wallis H test was used to investigate whether the groups differed at the outset of the treatment. The results show that the treatment groups had similar mean scores and there is not a statistically significance on the pretest measures regarding their reading comprehension scores, $\chi^2(2) = 0.212$, $p = 0.899$.

Means, medians, and standard deviations obtained from descriptive statistics in relation to reading comprehension test scores for both pre and posttest are presented in Table 5.26 for each group below.

Table 5.26

Descriptive statistics for the reading comprehension test pre-and post-test scores

	Sustained Silent Reading (SSR)		Assisted Repeated Reading (ARR)		Traditional Reading (TR)	
	Pre	Post	Pre	Post	Pre	Post
N	15	15	14	14	12	12
Mean	10.53	12.73	10.78	11.57	10.50	10.50
Median	10.00	13.00	10.50	11.00	10.00	11.00
SD	1.88	1.71	1.76	1.91	2.02	2.06
SE	0.48	0.44	0.47	0.51	0.58	0.59
Skewness	.199	.370	-.212	.722	.040	.593
Kurtosis	-.273	-.529	-1.164	-.114	-.326	.651

It can be seen that participants in the SSR group increased their comprehension scores from pretest to posttest whereas the ARR and TR groups made slight gains over a 10-week treatment. The participants in the SSR group increased their comprehension scores from the pretest (*Mdn* = 10) to the posttest (*Mdn* = 13), and a Wilcoxon signed rank-test revealed that this was a statistically significant difference (Z = -2.959, p = 0.003), with a large effect size (r = 0.54). The participants in the ARR group, on the other hand, increased their comprehension scores slightly from pre (*Mdn* = 10.50) to post-test (*Mdn* = 11.00); however, this gain was not statistically significant (Z = -1.653, p = 0.098). Similar to the ARR group, the TR group participants made gains from pre (*Mdn* = 10.00) to post-test (*Mdn* = 11.00), which did not elicit a statistically significant difference (Z = -.226, p = 0.821). From these results, it can be suggested that the SSR group made greater and statistically significant gains regarding their reading comprehension when compared to the ARR and TR groups.

The results are also presented with a profile plot diagram (see Figure 7) to demonstrate the changes identified in general reading comprehension median scores across group and time.

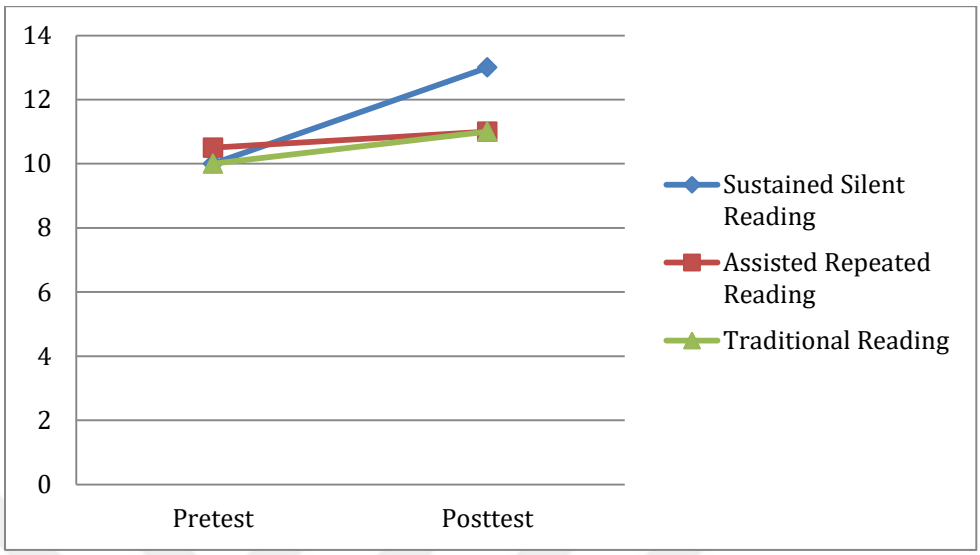


Figure 7. General reading comprehension median scores across group and time

In Figure 7, the pre and posttests and reading comprehension median scores along the horizontal and vertical axes are represented, respectively. As indicated in Figure 7, the SSR group made greater gains than the ARR while the TR group could not make any gains. At the beginning of the treatment, even though the median scores of SSR and TR groups were close to each other and the ARR group had scored slightly higher than both groups, at the end of the 10-week treatment, it is seen that SSR group outperformed both the ARR and TR group. When ARR and TR groups are compared, it is seen that the former made greater gains than the latter; the traditional reading instruction did not have a considerable effect on the participants' reading comprehension skills. Overall, it is evident that both SSR and ARR group participants improved their reading comprehension scores more than that the TR group participants did, yet only the SSR group made the greatest and the significant gains.

Research Question 1.1.a. Within the same treatment group, does the effect of SSR, ARR, and TR treatments on EFL learners' reading comprehension significantly vary according to two different proficiency levels (i.e., low and high proficiency participants)?

For investigating within-group differences in terms of different proficiency levels, a Wilcoxon signed-rank test was run to compare the pre- and post-test reading comprehension performance of low and high proficiency participants within each treatment group. As described in the previous chapter, the participants for this question were divided into low and high proficiency groups based on their proficiency test scores. The Z-scores as standard scores were used in order to divide them into two: those who were below the mean (negative Z-scores) were labeled as low-proficiency participants whereas those who scored at the mean and above (positive Z-scores) were categorized as high-proficiency participants. The descriptive statistics output table demonstrating the differences between low and high proficiency participants is presented in Table 5.27.

Table 5.27

Mean scores of the low and high proficiency participants at the reading comprehension test

			Pretest		Posttest			
Group	Proficiency	*n*	M (*SD*)	*Mdn*	M (*SD*)	*Mdn*	*Z*	*p*
SSR	Low	6	10.33 (*SD* = 1.21)	10.5	13.16 (*SD* = 1.94)	12.5	-2.232	.026*
	High	9	10.66 (*SD* = 2.29)	10	12.45 (*SD* = 1.59)	13	-1.969	.049*
ARR	Low	8	10.37 (*SD* = 1.59)	10	11.25 (*SD* = 2.18)	11	-1.552	.121
	High	6	11.33 (*SD* = 1.96)	12	12 (*SD* = 1.54)	11.5	-.649	.516
TR	Low	7	10 (*SD* = 2.38)	10	9.85 (*SD* = 1.86)	10	-.172	.863
	High	5	11.20 (*SD* = 1.30)	11	11.40 (*SD* = 2.19)	11	-.378	.705

* significant at the $p < 0.05$ level
Note. SSR= Sustained Silent Reading; ARR= Assisted Repeated Reading; TR= Traditional Reading

As can be seen from the output table (Table 5.27) presented above, regarding the SSR group participants, Wilcoxon signed rank test showed that both low and high proficiency participants increased their comprehension scores from pre to post-test. Both low-proficiency (Z = -2.232, p = .026) (r = 0.64) and high proficiency (Z = -1.969, p =.049) (r = .04) participants made statistically significant gains.

With respect to the ARR group participants, low-proficiency participants slightly increased their comprehension scores from pretest (*Mdn* = 10, *SD* = 1.59) to posttest (*Mdn* = 11, *SD* = 2.18) whereas high proficiency participants experienced a slight decrease from pre (*Mdn* = 12, SD = 1.96) to posttest (*Mdn* = 11.5, SD = 1.54). Besides, neither low (Z = -1.552, p = .121) nor high (Z = -.649, p = .516) proficiency participants could make statistically significant gains.

Regarding the TR group participants, low proficiency participants did not experience any change in their comprehension from pretest (*Mdn* = 10, *SD* = 2.38) to posttest (*Mdn* = 10, *SD* = 1.86) after the 10-week treatment. Similarly, high-proficiency participants did not make any gains on their reading comprehension scores from pretest (*Mdn* = 11, *SD* = 1.30) to posttest (*Mdn* = 11, *SD* = 2.19). These changes among the TR group participants were not statistically significant, neither for the low proficiency (Z = -.172, p =.863) nor for the high proficiency participants (Z = -.378, p = .705).

Research Question 1.2.a. Is there a difference among low-proficiency and high-proficiency EFL learners in terms of their gains across SSR, ARR, and TR treatments regarding their reading comprehension?

Moreover, the Kruskal Wallis H test used for investigating *across-group* differences at the pre-test showed that neither low ($\chi^2(2) = .369$, $p = 0.831$) nor high-proficiency ($\chi^2(2) = .412$, $p = 0.814$) participants differed significantly at the pre-test. However, the post-test results elicited a significant difference among low-proficiency participants across the three groups (SSR, ARR, and TR), $\chi^2(2) = 6.682$, $p = 0.035$. On the other hand, there was not a significant difference at the post-test across the three groups among high-proficiency participants, $\chi^2(2) = 1.662$, $p = 0.436$. Table 5.28 shows the mean rank differences between low and high proficiency participants across groups:

Table 5.28

Reading comprehension mean ranks across SSR, ARR, and TR

Level	Group	*n*	Pre-test mean rank	Post-test mean rank
	SSR	6	11.58	16.08
Low	ARR	8	11.56	10.38
	TR	7	9.86	7.36
	SSR	9	9.61	12
High	ARR	6	11.5	10.42
	TR	5	10.9	7.90

Table 5.28 indicates that for low-proficiency participants, SSR was the most effective treatment for enhancing reading comprehension as it elicited a statistically significant difference. For high-proficiency participants, similarly, SSR was more effective than ARR or than TR, yet the findings did not indicate a statistically significant difference.

Research Question 1(a). Is there an effect of three different treatments, namely sustained silent reading (SSR), assisted repeated reading (ARR) and traditional reading (TR) on EFL learners' silent reading rate at two different proficiency levels?

The same research question (1a) also aimed to investigate the effect of different treatments on participants' silent reading rate. The data regarding silent reading rate and comprehension were first analyzed through descriptive statistics. The means, medians, and standard deviations obtained from the descriptive statistics analysis are presented in Table 5.29 below.

Table 5.29

Descriptive statistics for the silent reading rate pre-and post-test scores

	Sustained Silent Reading (SSR)		Assisted Repeated Reading (ARR)		Traditional Reading (TR)	
	Pre	Post	Pre	Post	Pre	Post
N	15	15	14	14	12	12
Mean	104.13	79.25	134.53	98.31	101.24	108.85
Median	98.90	74.80	135.82	88.41	99.39	101.54
SD	31.43	21.07	28.83	26.76	19.74	36.11
SE	8.11	5.44	7.70	7.15	5.70	10.42
Skewness	1.896	2.145	-.681	1.307	.356	.274
Kurtosis	5.320	6.107	.158	1.730	-.779	.044

When the mean scores of the pre-silent reading rate test were compared across groups, there was a considerable difference in the words read per minute among the SSR, ARR, and TR groups, with a mean of 134.53 (*SD* = 28.83) words per minute for the ARR group and 104.13 (*SD* = 31.43) and 101.24 (*SD* = 19.74) words per minute for SSR and TR group, respectively. Kruskal Wallis-H test was used to check whether the pretest wpms differ significantly, and the results demonstrated that there was a statistically significant difference among the three groups at the pretest, $\chi^2(2) = 10.714$, $p = 0.005$, with a mean

rank wpm of 16.80 for SSR group, 29.50 for ARR, and 16.33 for TR group. Therefore, a one-way ANCOVA (Analysis of Covariance) test was used to investigate whether the groups differ at the posttest, by taking the differences at the pretest as the covariate in the analysis. The descriptive statistics table (Table 5.29) demonstrated above presents descriptive statistics of the values which did not include any adjustments made by the use of a covariate. The table below (Table 5.30) demonstrates the ANCOVA results:

Table 5.30

Test of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	14836.402[a]	3	4945.467	8.631	.000	.412
Intercept	2387.171	1	2387.171	4.166	.048	.101
Readingrate_PRE	8673.800	1	8673.800	15.137	.000	.290
Group	7283.040	2	3641.520	6.355	.004	.256
Error	21201.346	37	573.009			
Total	401606.231	41				
Corrected Total	36037.748	40				

a. R Squared = .412 (Adjusted R Squared = .364)

As seen in Table 5.30, there was a significant difference in silent reading rate [$F(2,37) = 6.355$, $p = 0.004$] among the groups, whilst adjusting for the differences at the pretest. The adjusted posttest wpms are as follows:

Table 5.31

Adjusted posttest wpms

			95% Confidence Interval	
Group	Mean	Std. Error	Lower Bound	Upper Bound
SSR	84.47[a]	6.32	71.662	97.292
ARR	86.88[a]	7.03	72.625	101.151
TR	115.65[a]	7.12	101.215	130.100

a. Covariates appearing in the model are evaluated at the following values: Silent reading rate_PRE = 113,6685.

To further investigate which groups differed, post hoc tests were run, and the results showed that there is a significant difference between SSR and TR (p = .005), and between ARR and TR (p = .029) groups. Comparison of the estimated marginal means showed that over the 10-week treatment, only the TR group improved their silent reading rate (with a mean gain of approximately 14 words per minute). On the other hand, the participants in other groups—SSR and ARR—decreased their silent reading rate. Whereas the participants in the TR group read an average of 115.65 words per minute at the post-silent reading rate test, the participants in the ARR group read an average of 86.88 words per minute, which is followed by the SSR group participants with an average of 84.47 words per minute. However, the ARR participants decreased the number of words they read per minute far more than the SSR participants. The former read nearly 47 words per minute less whereas the latter read only about 19 words less at the post-test. Figure 8 demonstrates silent reading rate mean scores for groups and for time in a profile plot diagram.

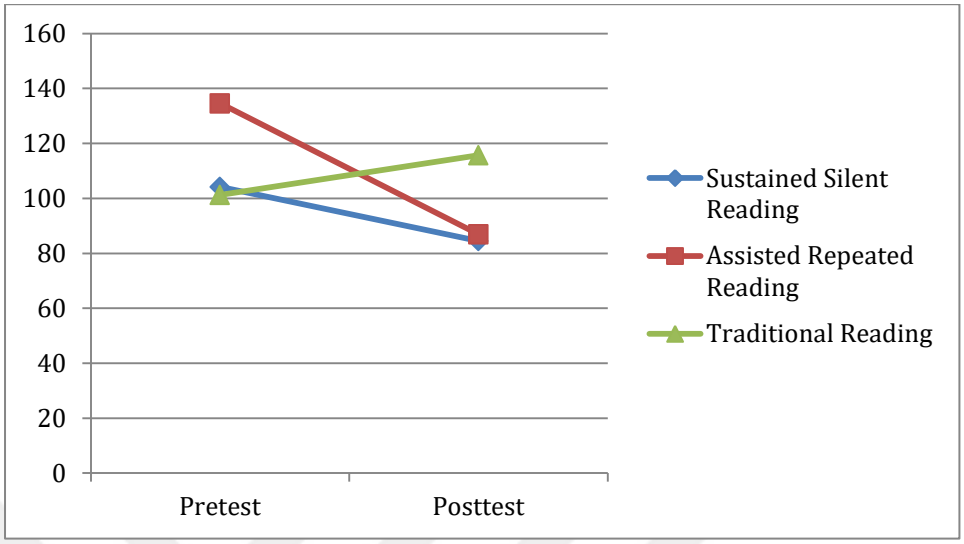


Figure 8. Silent reading rate and comprehension mean scores across group and time (adjusted posttest means)

In Figure 8, whereas the horizontal axis shows the pre and posttests, the vertical axis illustrates the silent reading rate mean scores. From Figure 8 above, it can be stated that both SSR and ARR group participants decreased their silent reading rate, that is, both SSR (with a mean decrease of about 19 words) and ARR (with a mean decrease of about 47 words) groups read relatively fewer words read per minute (wpm) at the post-test. On the contrary, TR group participants improved their reading fluency in 10-weeks time, albeit slightly.

Research Question 1.1. a. Within the same treatment group, does the effect of SSR, ARR, and TR treatments on EFL learners' silent reading rate significantly vary according to two different proficiency levels (i.e., low and high proficiency participants)?

The results of the descriptive statistics analysis presented in Table 5.32 shows the average number of words read per minute in each group and sub-group. Similarly, the standard Z-score within each group was used for further dividing the participants into low and high proficiency participants. The participants above and below the mean were categorized into low and high proficiency participants according to their general language proficiency. A Wilcoxon signed rank test was run to see whether the silent reading rate of low and high proficiency learners significantly differ within each group.

Table 5.32

Mean scores of the low and high proficiency participants regarding their wpms

			Pretest		Posttest			
Group	Proficiency	*n*	M (*SD*)	*Mdn*	M (*SD*)	*Mdn*	*Z*	*p*
SSR	Low	6	104.69 (*SD* = 18.56)	104.2	73.55 (*SD* = 10.31)	74.25	-2.201	.028*
	High	9	103.75 (*SD* = 38.9)	97.61	83.05 (*SD* = 25.89)	74.8	-2.073	.038*
ARR	Low	8	116.85 (*SD* = 23.78)	119.08	94.76 (*SD* = 23.01)	86.34	-2.521	.012*
	High	6	158.09 (*SD* = 14.26)	160.96	103.03 (*SD* = 32.76)	93.15	-1.992	.046*
TR	Low	7	99.61 (*SD* = 22.09)	94.25	106.02 (*SD* = 29.86)	99.44	-1.183	.237
	High	5	103.53 (*SD* = 18.12)	101.56	112.82 (*SD* = 47.06)	120.38	-.674	.500

* significant at $p \leq 0.05$ level

Note. SSR= Sustained Silent Reading; ARR= Assisted Repeated Reading; TR= Traditional Reading

As presented in Table 5.32, both low and high proficiency participants in SSR and ARR group participants significantly decreased their silent reading rate mean scores after the 10-week intervention.

More specifically, low-proficiency participants in the SSR group decreased their average word per minute (wpm) significantly (Z = -2.201, p = .028), with a large effect size (r = 0.63). High-proficiency participants, similarly, decreased the number of words read per minute from pre to posttest, which indicates a statistically significant drop (Z = -2.073, p = .038) with a large effect size (r = 0.48).

Regarding ARR group participants, both low proficiency (Z = -2.521, p = .012) and high proficiency (Z = -1.992, p = .046) participants significantly decreased the number of words read per minute, with large effect sizes (r = 0.63, r = 0.57, respectively).

On the contrary to the SSR and ARR group participants, both the low and high proficiency participants in the TR group improved their silent reading rate mean scores from pretest to posttest, although slightly. At the beginning, the low-proficiency participants read 94.25 wpm (SD = 22.09), and the high-proficiency participants read 130.60 wpm (SD = 18.12). At the end of the 10-week treatment, the low-proficiency participants read a median of 94.54 wpm (SD = 29.86), with a mean gain of only 0.29 words, and the high-proficiency participants read a median of 155.75 wpm (SD = 47.06) at the post-test, with a median gain of 25.15 words. Nevertheless, these increases in the median scores for neither subgroups were statistically significant (Z = -1.183, p = .237 for low-proficiency participants; Z = -.674, p = .500 for high-proficiency participants).

Research Question 1.2.a. Is there a difference among low-proficiency and high-proficiency EFL learners in terms of their gains across SSR, ARR, and TR treatments regarding their silent reading rate?

At the pre-test, the Kruskal Wallis H test did not indicate a significant difference among low-proficiency participants ($\chi^2(2) = 2.423$, $p = 0.298$) whereas a significant difference was found among high-proficiency participants across groups, $\chi^2(2) = 8.369$, $p = 0.015$. At the posttest, whereas low ($\chi^2(2) = 6.778$, $p = 0.034$) proficiency significantly differed across groups, high ($\chi^2(2) = 3.523$, $p = 0.172$) proficiency participants did not. Table 5.33 indicates the mean ranks for each group:

Table 5.33

Silent reading rate mean ranks across SSR, ARR, and TR

Proficiency	Group	*n*	Pre-test mean rank	Post-test mean rank
	SSR	6	10	5.67
Low	ARR	8	13.63	12
	TR	7	8.86	14.43
	SSR	9	7.78	7.78
High	ARR	6	16.33	12.33
	TR	5	8.40	13.20

As indicated in Table 5.33, for low-proficiency participants, the TR treatment seems to be more effective than SSR or ARR in terms of improving their silent reading rate. For high-proficiency participants, on the other hand, only the TR treatment seems to contribute to silent reading rates.

5.2.2. Vocabulary knowledge.

Research Question 1(b). Is there an effect of three different treatments, namely sustained silent reading (SSR), assisted repeated reading (ARR) and traditional reading (TR) on EFL learners' vocabulary knowledge at two different proficiency levels?

5.2.2.1. Receptive vocabulary knowledge.

In order to investigate whether the receptive vocabulary knowledge of the participants would change after the 10-week treatment, the data came from a receptive vocabulary test. The results of the Kruskal Wallis H test did not reveal a statistically significant difference across groups at the pre-test, $\chi^2(2) = 2.376$, $p = 0.305$. Table 5.34 shows the descriptive statistics for both pre and post receptive vocabulary test.

Table 5.34

Descriptive statistics for the receptive vocabulary test pre-and post-test scores

	Sustained Silent Reading (SSR)		Assisted Repeated Reading (ARR)		Traditional Reading (TR)	
	Pre	Post	Pre	Post	Pre	Post
N	15	15	14	14	12	12
Mean	57.93	64.26	56.00	57.42	52.38	61.16
Median	58	64	55	60	54.82	64.50
SD	6.13	6.47	6.92	8.70	9.20	7.70
SE	1.58	1.67	1.85	2.32	2.65	2.22
Skewness	.217	-.069	.134	-.964	-.442	-.860
Kurtosis	-.915	.839	-1.114	.540	-.797	-.084

Results from the descriptive statistics analysis reveal improvement among three groups with respect to their receptive vocabulary knowledge, with the TR group participants who had the greatest gain, which is followed by the SSR and ARR group participants successively. The Wilcoxon signed rank-test demonstrated that these gains were

statistically significant for the TR (Z = -2.941, p = 0.003) and SSR (Z = -2.769, p = 0.006) group participants, with large effect sizes for both groups (r = .60 for TR, r = .50 for SSR). Both TR and SSR groups made greater gains than the ARR did on this measure, which showed no significant impact of assisted repeated reading treatment (Z = -.664, p = .506). Figure 9 provides additional insights into the receptive vocabulary knowledge mean scores across group and time with a profile plot diagram.

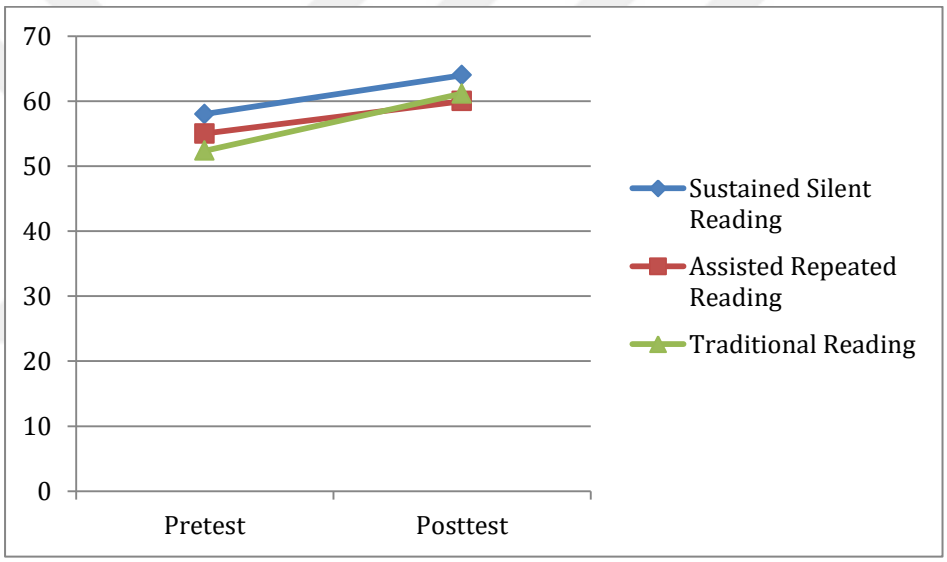


Figure 9. Receptive Vocabulary Knowledge median scores across group and time

The tests are represented by the horizontal axis, while the mean scores are represented by the vertical axis. As indicated in Figure 9, despite the fact that both SSR and TR group participants improved their receptive vocabulary knowledge after a 10-week treatment, among ARR group participants there is not a considerable improvement throughout this time period.

Table 5.35 below also illustrates differences in mean scores across vocabulary levels for the receptive VLT and the results of the Wilcoxon signed rank test for each

treatment group. As indicated in Table 5.35, the participants in the SSR and TR group made gains across all vocabulary levels, from pre to posttest. And, the results also elicited significant and greater gains in 10K levels in SSR and in TR. On the contrary, the ARR group demonstrated a different pattern in their results since their mean scores did not much differ from pre to post receptive VLT; they did not make statistically significant gains for any of the vocabulary levels.

Table 5.35

Descriptive statistics and Wilcoxon signed rank tests results for receptive vocabulary levels per treatment group

Treatment Group	Vocabulary Level	Pre-receptive VLT M (*SD*)	Post-receptive VLT M (*SD*)	*Z*	*p*
SSR (*n* = 15)	2000	15.06 (1.75)	15.73 (1.27)	-1.510	.131
	3000	15.20 (1.56)	16.00 (1.69)	-1.477	.140
	5000	12.46 (1.76)	12.53 (2.29)	-.091	.928
	UWL	11.60 (3.86)	13.26 (2.25)	-1.687	.092
	10.000	3.60 (2.26)	6.73 (2.65)	-2.780	.005*
	Total	57.93 (6.13)	64.26 (6.47)	-2.769	.006*
ARR (*n* = 14)	2000	14.64 (1.82)	15.07 (1.32)	-.919	.358
	3000	14.71 (1.68)	15.28 (1.63)	-1.408	.159
	5000	10.78 (2.48)	10.92 (3.54)	-.141	.888
	UWL	12.50 (2.50)	11.64 (2.89)	-1.127	.260
	10.000	3.35 (1.78)	4.50 (2.87)	-1.428	.153
	Total	56.00 (6.92)	57.42 (8.70)	-.664	.506
TR (*n* = 12)	2000	14.73 (1.42)	15.66 (1.37)	-1.791	.073
	3000	14.91 (2.50)	15.33 (1.72)	-1.039	.299
	5000	9.24 (3.24)	11.08 (2.31)	-2.055	.040*
	UWL	10.46 (3.21)	12.33 (2.49)	-1.944	.052
	10.000	3.02 (1.90)	6.75 (2.41)	-3.068	.002*
	Total	52.38 (9.20)	61.16 (7.70)	-2.941	.003*

* significant at $p \leq 0.05$ level

Note. Each level involves six items involving three target words. The asterisk sign (*) shows a statistically significant change at the 0.05 level. The double asterisk sign (**) shows a statistically significant change at the 0.01 level.

Research Question 1.1.b. Within the same treatment group, does the effect of SSR, ARR, and TR treatments on EFL learners' (b) receptive vocabulary knowledge significantly vary according to two different proficiency levels (i.e., low and high proficiency participants)?

A Wilcoxon signed rank test was run to see whether receptive vocabulary knowledge of low and high proficiency learners would significantly differ within each group. Table 5.36 below shows the descriptive statistics of the participants in each group:

Table 5.36

Descriptive statistics of the low and high proficiency participants regarding their receptive vocabulary knowledge

		Pretest			Posttest			
Group	Proficiency	*n*	M (*SD*)	*Mdn*	M (*SD*)	*Mdn*	Z	*p*
SSR	Low	6	59.16 (8.32)	60.5	64.33 (4.84)	63.5	-1.265	.206
	High	9	57.11 (4.53)	57	64.22 (7.66)	64	-2.574	.010*
ARR	Low	8	53 (5.83)	52	54.12 (9.41)	56.5	-.254	.799
	High	6	60 (6.60)	62	61.83 (5.67)	62	-.841	.400
TR	Low	7	53.8 (8.38)	55.65	61.28 (6.67)	65	-2.201	.028*
	High	5	50.4 (10.92)	54	61 (9.82)	64	-2.041	.041*

* significant at p≤ 0.05 level
Note. SSR= Sustained Silent Reading; ARR= Assisted Repeated Reading; TR= Traditional Reading

The results of the Wilcoxon signed rank test demonstrated that both low and high proficiency participants in the SSR group improved their receptive vocabulary knowledge, yet while low proficiency participants did not make statistically significant gains (Z = -1.265, p = .206), the gain made by the high-proficiency participants was statistically significant (Z = -2.574, p =.010), with a large effect size (r = .60). The ARR participants—neither low (Z = -.254, p = .799) and nor high (Z = -.841, p = .400) proficiency participants—made any gains from the pre-test to the post-test. On the other

hand, both the low (Z = -2.201, p = .028) (r = .58) and the high (Z = -2.041, p = .041) (r = .64) proficiency participants in the TR group made statistically significant gains by increasing their receptive vocabulary scores with large effect sizes from pre to post-test over a 10-week treatment period.

Research Question 1.2.b. Is there a difference among low-proficiency and high-proficiency EFL learners in terms of their gains across SSR, ARR, and TR treatments regarding their receptive vocabulary knowledge?

Across the three treatment groups (i.e., SSR, ARR, and TR), Kruskal Wallis H test results did not elicit a statistical significant difference among low ($\chi^2(2) = 2.088$, p = 0.352) or high proficiency ($\chi^2(2) = 2.443$, p = 0.295) participants at the pretest. At the posttest, similarly, Kruskal Wallis H test did not indicate a statistically significant difference among low ($\chi^2(2) = 5.410$, p = 0.067) or high ($\chi^2(2) = .401$, p = 0.818) proficiency participants across groups. Table 5.37 illustrates the mean ranks across groups:

Table 5.37

Receptive vocabulary test mean ranks across SSR, ARR, and TR

Proficiency	Group	*n*	Pre-test mean rank	Post-test mean rank
	SSR	6	14	14.17
Low	ARR	8	9.31	7.06
	TR	7	10.36	12.79
	SSR	9	10.44	11.39
High	ARR	6	13.08	9.50
	TR	5	7.5	10.10

As indicated in Table 5.37, both low and high proficiency participants increased their receptive vocabulary knowledge in SSR and TR groups. However, high proficiency participants in the TR group made better gains than those in the SSR group did. On the other hand, both low and high proficiency participants in the ARR group decreased their receptive vocabulary knowledge. To sum up, it seems that both for low and high proficiency participants, the TR treatment was more effective for enhancing receptive vocabulary knowledge than SSR whereas ARR was not effective at all.

5.2.2.2. Productive vocabulary knowledge.

Research question 1(b) aimed to find the possible effects of three different treatment groups on participants' productive vocabulary knowledge. The results of the Kruskal Wallis H test indicated that there is a not a statistically significant difference across groups at the outset, $\chi^2(2) = 2.064$, $p = .356$. In Table 5.38 below, the results of the descriptive statistics analysis of the pre- and post-test are presented:

Table 5.38

Descriptive statistics for the productive vocabulary test pre- and post-test scores

	Sustained Silent Reading (SSR)		Assisted Repeated Reading (ARR)		Traditional Reading (TR)	
	Pre	Post	Pre	Post	Pre	Post
N	15	15	14	14	12	12
Mean	29.93	38.20	26.92	31.57	27.75	34.33
Median	30	37	25	32	26.50	34
SD	5.44	5.36	7.47	9.35	5.06	6.27
SE	1.40	1.38	1.99	2.49	1.46	1.81
Skewness	.483	.004	.440	-.295	.694	-.078
Kurtosis	-.033	-.653	-1.104	-.742	.185	.293

As indicated in Table 5.38, all three intervention groups, namely SSR, ARR, and TR, improved their productive vocabulary knowledge over the 10-week timespan. Among the treatment groups, the group which made the greatest gain with regard to productive vocabulary knowledge is the TR group, by increasing their median score from 26.50 (*SD* = 5.06) at the pre-test to 34 (*SD* = 6.27) at the post-test, which was statistically significant (Z = -2.988, p = 0.003) with a large effect size (r = .60). Similarly, SSR and ARR groups made statistically significant gains, which performed similarly: Whereas the former increased their median scores from 30 (*SD* = 5.44) at the pretest to a median of 37 (*SD* = 5.36) (r = .60), the latter increased their median scores from 25 (*SD* = 7.47) to 32 (*SD* = 9.35) (r = .54) from pre to posttest, both of which were statistically significant (Z = -3.299, p = 0.001 for the SSR group; Z = -2.897, p = 0.004 for the ARR group) with large effect sizes.

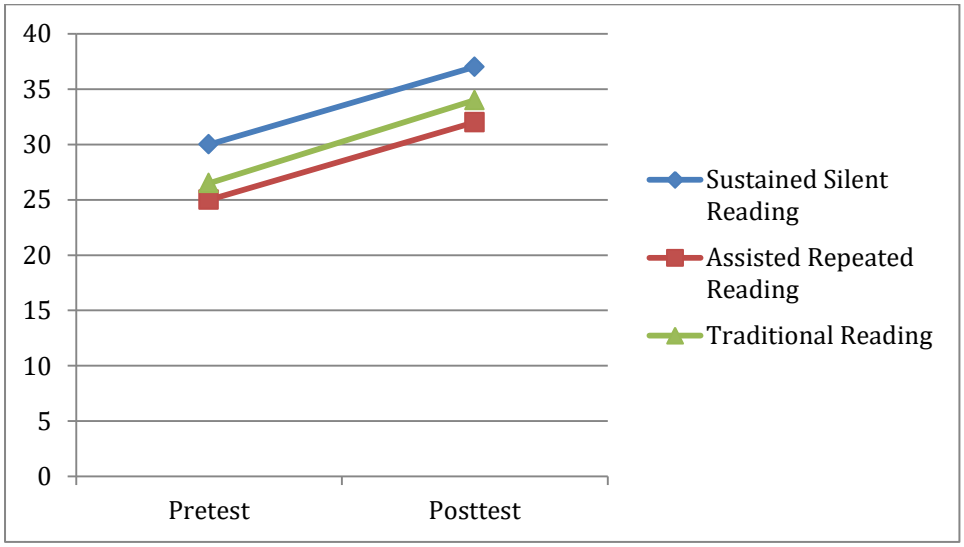


Figure 10. Productive Vocabulary Knowledge median scores across group and time

Figure 10 provides an overview of the participants' productive vocabulary knowledge. The horizontal axis illustrates the tests, while the vertical axis demonstrates the productive vocabulary knowledge median scores. As can be seen from Figure 10, the participants in the SSR group made better gains than the participants in the ARR and TR group did for the productive vocabulary knowledge. The TR group made better gains than the ARR group, yet the difference between their median gain scores is not considerable.

In terms of the vocabulary bands, Table 5.39 illustrates the descriptive statistics for vocabulary levels in the productive vocabulary levels test (i.e., 2K, 3K, 5K, UWL, and 10K) per each treatment group. As indicated, participants in the SSR group made statistically significant gains in all the vocabulary levels. Similarly, for the TR group, the differences in the mean scores between pre and post productive VLT were statistically significant across all the levels. The differences in vocabulary levels for ARR group, however, demonstrated a different pattern, showing a statistical difference only in the 3K level. In 2K, 5K, UWL, and in 10K levels, the participants in the group made very small yet non-significant gains.

Table 5.39

Descriptive statistics and Wilcoxon signed rank tests results for productive vocabulary levels per treatment group

Treatment Group	Vocabulary Level	Pre-productive VLT M (SD)	Post-productive VLT M (SD)	*Z*	*p*
SSR (*n* = 15)	2000	13.66 (1.79)	15.26 (1.43)	-2.602	.009*
	3000	5.60 (1.63)	6.73 (1.62)	-2.645	.008*
	5000	4.40 (1.18)	6.20 (1.52)	-2.924	.003*
	UWL	4.93 (1.98)	7.53 (1.99)	-3.156	.002*
	10.000	1.33 (1.11)	2.46 (1.30)	-2.569	.010*
	Total	29.93 (5.44)	38.20 (5.36)	-3.299	.001**
ARR (*n* = 14)	2000	12.50 (2.92)	13.64 (2.97)	-1.556	.120
	3000	5.21 (2.29)	6.92 (2.33)	-2.961	.003*
	5000	3.64 (1.54)	4.28 (2.09)	-1.452	.147
	UWL	4.28 (2.49)	5.14 (3.37)	-1.524	.127
	10.000	1.28 (.91)	1.57 (.85)	-1.633	.102
	Total	26.92 (7.47)	31.57 (9.35)	-2.897	.004*
TR (*n* = 12)	2000	13.33 (1.87)	14.91 (1.92)	-2.333	.020*
	3000	4.91 (2.15)	6.33 (1.72)	-2.404	.016*
	5000	3.75 (1.28)	4.91 (1.72)	-1.981	.048*
	UWL	4.16 (1.74)	6 (2.48)	-2.239	.025*
	10.000	1.58 (2.99)	2.16 (1.26)	-2.070	.038*
	Total	27.75 (5.06)	34.33 (6.27)	-2.988	.003*

Note. Each level involves 18 items. The asterisk sign (*) shows a statistically significant change at 0.05 level whereas the double asterisk (**) shows a significant change at the 0.01 level.

Research Question 1.1.b. Within the same treatment group, does the effect of SSR, ARR, and TR treatments on EFL learners' productive vocabulary knowledge significantly vary according to two different proficiency levels (i.e., low and high proficiency participants)?

A Wilcoxon signed rank test was run to see whether productive vocabulary knowledge of low and high proficiency learners significantly differ between low and high proficiency participants within each group. Table 5.40 below shows the descriptive statistics of the participants in each group:

Table 5.40

Descriptive statistics of the low and high proficiency participants regarding their productive vocabulary knowledge

Group	Proficiency		Pretest		Posttest			
		n	M (*SD*)	*Mdn*	M (*SD*)	*Mdn*	Z	*p*
SSR	Low	6	32.33 (2.73)	33.5	37 (2.96)	36.5	-2.023	.043*
	High	9	28.33 (6.32)	27	39 (6.55)	40	-2.670	.008*
ARR	Low	8	24.12 (6.49)	22	27.62 (9.21)	28	-1.829	.067
	High	6	30.66 (7.55)	31.5	36.83 (7.11)	38	-2.214	.027*
TR	Low	7	26.28 (4.53)	25	33.28 (6.89)	34	-2.201	.028*
	High	5	29.8 (5.54)	27	35.8 (5.67)	34	-2.060	.039*

* significant at p≤ 0.05 level

Note. SSR= Sustained Silent Reading; ARR= Assisted Repeated Reading; TR= Traditional Reading

The results of the Wilcoxon signed rank test illustrated that both low and high proficiency participants in the SSR group made statistically significant gains (Z = -2.023, p = .043, r = .58; Z = -2.670, p = .008, r = .62 respectively), yet high proficiency participants made higher gains than that the low proficiency participants did. The low proficiency participants in the ARR group, however, did not make statistically significant gains yet slightly increased their average mean scores (Z = -1.829, p = .067). On the other hand, the high-proficiency participants in the ARR group made statistically significant gains by increasing their productive vocabulary mean scores from pre to post-test (Z = -2.214, p = .027) with a large effect size (r = .63). In the TR group, however, both low (Z = -2.201, p = .028) and high proficiency (Z = -2.060, p = .039) participants made statistically significant gains, with large effect sizes (r = .58 for low, r = .65 for high).

Research Question 1.2.b. Is there a difference among low-proficiency and high-proficiency EFL learners in terms of their gains across SSR, ARR, and TR treatments regarding their productive vocabulary knowledge?

Regarding their productive vocabulary knowledge, Kruskal Wallis H test results indicated that low proficiency participants statistically differed at the pre ($\chi^2(2) = 6.637$, $p = 0.036$) yet not at the posttest ($\chi^2(2) = 5.127$, $p = 0.077$) across groups, with the SSR group participants having the highest mean rank both at the pre and posttest. On the other hand, the Kruskal Wallis H test results did not reveal a statistically significant difference among high proficiency participants across groups, not only at the pre ($\chi^2(2) = .774$, $p = 0.679$) but also at the post ($\chi^2(2) = 1.265$, $p = .531$) productive vocabulary test. Table 5.41 shows the mean ranks across groups:

Table 5.41

Productive vocabulary test mean ranks across SSR, ARR, and TR

Proficiency	Group	*n*	Pre-test mean rank	Post-test mean rank
	SSR	6	16.25	15.08
Low	ARR	8	7.75	7.56
	TR	7	10.21	11.43
	SSR	9	9.22	11.89
High	ARR	6	11.67	10.33
	TR	5	11.40	8.20

As indicated in Table 5.41, for low-proficiency participants, SSR treatment seems to be more effective in enhancing participants' productive vocabulary knowledge than the ARR or TR group. For high-proficiency participants, on the other hand, TR and ARR seem to contribute more to productive vocabulary knowledge than the SSR treatment did; however, this difference was not statistically significant.

5.2.3. Reading motivation.

Research Question (1c). Is there an effect of three different treatments, namely sustained silent reading (SSR), assisted repeated reading (ARR) and traditional reading (TR) on EFL learners' reading motivation at two different proficiency levels?

Research questions (1c) aimed to see whether the reading motivation of the participants would change or not after the 10-week treatment. According to the Kruskal-Wallis H results, the groups did not significantly differ regarding their reading motivation at the outset of the study, $\chi^2(2) = 1.254$, $p = 0.534$. Table 5.42 (see Table 5.42 below) displays the results of the descriptive statistics analysis for both pre- and post-test scores of the groups.

Table 5.42

Descriptive statistics for the motivation for reading test pre-and post-test scores

	Sustained Silent Reading (SSR)		Assisted Repeated Reading (ARR)		Traditional Reading (TR)	
	Pre	Post	Pre	Post	Pre	Post
N	15	15	14	14	12	12
Mean	159.26	158.4	159.35	158.92	152.41	159.83
Median	165	158	159	156	154.5	158
SD	19.7	16.29	17.55	13.31	20.42	21.32
SE	5.08	4.2	4.69	3.55	5.89	6.15
Skewness	-.525	.590	-.056	1.468	-.169	.026
Kurtosis	-.961	.991	.334	2.225	.843	-.822

As can be seen from Table 5.42 illustrating the descriptive statistics with respect to the reading motivation level of the participants, whereas the treatment did not have a considerable effect on the reading motivation of SSR and ARR group participants, TR group participants increased their mean scores from pre to posttest. When the Wilcoxon

signed-rank test was administered, the results demonstrated that the gains in the SSR and ARR groups were not statistically significant (Z = -.398, p = .691; Z = -.356, p = .722 respectively), nor was it for the decrease in the average mean scores of the TR group (Z = -.1.492, p = .136) with respect to their reading motivation.

In addition to the overall motivation scores, the two constructs of reading motivation comprising intrinsic and extrinsic motivation scores, and the changes from pre to posttest are presented in Figure 11:

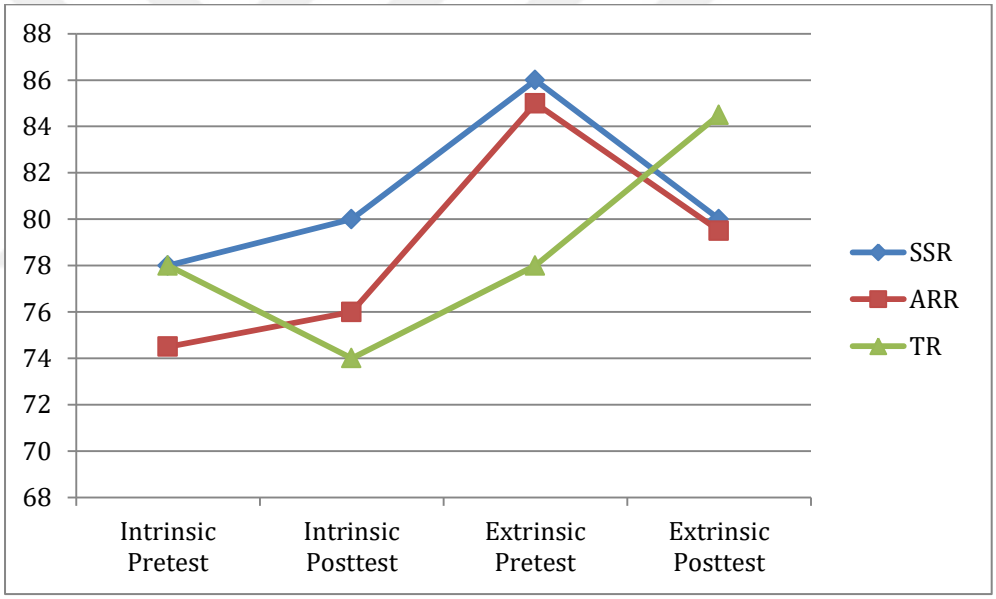


Figure 11. Intrinsic and extrinsic reading motivation scores across group and time

Intrinsic and extrinsic reading motivation median scores across groups and time are depicted in Figure 11, in which the horizontal axis illustrates the tests (intrinsic vs. extrinsic, and pretest vs. posttest), and the vertical axis represents the motivation median scores. As shown in Figure 11, for intrinsic reading motivation, SSR and TR group participants had similar median scores at the outset. Nevertheless, the SSR group increased their intrinsic motivation whereas the TR group decreased it at the post-test

after the 10-week treatment. In addition, ARR group participants had the lowest intrinsic motivation at the pre-test, yet they increased their intrinsic motivation after the 10-week treatment. With respect to their extrinsic motivation, Figure 11 illustrates that both SSR and ARR had a close extrinsic motivation level, and both decreased their extrinsic reading motivation after the treatment, whereas the TR group increased their extrinsic motivation. The descriptive statistics regarding these changes in the pre and posttest are presented in Table 5.43.

Table 5.43

Descriptive statistics and Wilcoxon signed rank test results for the constructs of the motivation for reading test pre-and post-test scores

	SSR (*n* = 15)				ARR (*n* = 14)				TR (*n* = 12)			
Construct	Pretest Mdn (*SD*)	Posttest Mdn (*SD*)	*Z*	*p*	Pretest Mdn (*SD*)	Posttest Mdn (*SD*)	*Z*	*p*	Pretest Mdn (*SD*)	Posttest Mdn (*SD*)	*Z*	*p*
Intrinsic motivation	78 (8.26)	80 (7.71)	-.666	.506	74.5 (7.99)	76 (6.13)	-.944	.345	78 (9.48)	74 (8.36)	-.512	.609
Extrinsic motivation	86 (12.51)	80 (11.35)	-.369	.712	85 (12.11)	79.5 (10.28)	-.070	.944	78 (12.66)	84.5 (13.76)	-1.768	.077
Motivation for reading (overall)	165 (19.70)	158 (16.29)	-.398	.691	159 (17.55)	156 (13.31)	-.356	.722	154.5 (20.42)	158 (21.32)	-1.492	.136

Note. The asterisk sign (*) shows a statistically significant change at the 0.05 level.

Table 5.44

Descriptive statistics and Wilcoxon signed rank test results for the constructs of the intrinsic motivation for reading test pre- and post-test scores

Group/ Construct	Curiosity Mdn (SD)		Involvement Mdn (SD)		Preference for challenge Mdn (SD)	
	Pre	Post	Pre	Post	Pre	Post
SSR (*n* = 15)	30 (3.15)	30 (3.54)	30 (4.08)	28 (3.69)	18 (2.76)	19 (3.12)
ARR (*n* = 14)	29 (2.27)	29 (2.40)	28.5 (3.73)	27.5 (3.52)	16 (3.70)	19 (2.22)
TR (*n* = 12)	28.5 (3.67)	30.5 (3.24)	29 (3.36)	29 (4.15)	18 (3.34)	18.5 (2.59)

Note. The asterisk sign (*) shows a statistically significant change at the 0.05 level.

Table 5.45

Descriptive statistics and Wilcoxon signed rank test results for the constructs of the extrinsic motivation for reading test pre- and post-test scores

Group/ Construct	Recognition Mdn (SD)		Grades Mdn (SD)		Social Mdn (SD)		Competition Mdn (SD)		Compliance Mdn (SD)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
SSR (*n* = 15)	21 (4.30)	20 (2.98)	14 (3.51)	14 (2.78)	14 (1.85)	14 (2.87)	22 (5.57)	23 (5.36)	12 (1.43)	12 (1.64)
ARR (*n* = 14)	23.5 (3.07)	20 (2.93)	15.5 (3.18)	14.5 (3.34)	13.5 (2.65)	14 (2.57)	22 (4.54)	22 (4.44)	11 (2.17)	12 (2.02)
TR (*n* = 12)	17.5 (3.77)	21* (5.17)	14 (3.02)	15 (2.87)	14 (3.51)	16 (2.67)	20.5 (3.94)	24.5 (5.84)*	11 (1.86)	12 (2.48)

Note. The asterisk sign (*) shows a statistically significant change at the 0.05 level.

Table 5.44 demonstrates the descriptive statistics and Wilcoxon signed rank test results for the constructs of the intrinsic motivation for reading test pre-and post-test scores. According to the results, none of the decreases or increases are statistically significant for any treatment groups. Table 5.45, on the other hand, shows the descriptive statistics and Wilcoxon signed rank test results for the constructs of the extrinsic motivation for reading test pre-and post-test scores. According to the results, neither SSR nor ARR experienced statistically significant changes in the constructs of extrinsic motivation. On the other hand, TR group made statistically significant gains in Recognition (Z = -2.051, p = .040) and in Competition (Z = -1.980, p = .048) from pre to posttest.

Research Question 1.1.c. Within the same treatment group, does the effect of SSR, ARR, and TR treatments on EFL learners' reading motivation significantly vary according to two different proficiency levels (i.e., low and high proficiency participants)?

A Wilcoxon signed rank test was administered to investigate whether reading motivation of low and high proficiency learners significantly differ within each group. Table 5.46 below shows the descriptives of the participants in each group and subgroup:

Table 5.46

Mean and median reading motivation scores of low and high proficiency participants

		Pretest			Posttest			
Group	Proficiency	*n*	M (*SD*)	*Mdn*	M (*SD*)	*Mdn*	Z	*p*
SSR	Low	6	148.16 (23.86)	141.5	150.83 (13.18)	151	-.420	.674
	High	9	166.66 (13.01)	166	163.44 (16.87)	161	-.830	.407
ARR	Low	8	159 (16.62)	155.5	159.87 (14.04)	156	-.845	.398
	High	6	159.83 (20.35)	161.5	157.66 (13.47)	155.5	-.365	.715
TR	Low	7	145.57 (19.19)	155	157.42 (20.83)	158	-1.690	.091
	High	5	162 (19.96)	154	163.2 (23.99)	157	-.405	.686

* significant at p≤ 0.05 level

Note. SSR= Sustained Silent Reading; ARR= Assisted Repeated Reading; TR= Traditional Reading

As shown in Table 5.46, in the SSR group, although low proficiency participants increased their overall reading motivation, high proficiency participants slightly decreased their motivation. However, these changes were not statistically significant either for low (Z = -.420, p = .674) or for high (Z = -.830, p = .407) proficiency participants. Nevertheless, both low and high proficiency participants increased their intrinsic motivation from pre (Low *Mdn* = 71; High *Mdn* = 79) to posttest (Low *Mdn* = 75; High *Mdn* = 80). Regarding their extrinsic motivation, whereas low proficiency participants increased their extrinsic motivation from pre (*Mdn* = 74.5) to posttest (*Mdn* = 80), high proficiency participants decreased their extrinsic motivation (Pre *Mdn* = 88; Post *Mdn* = 81). None of these changes were significant, though.

With respect to the ARR group, similar to the SSR group, whereas low proficiency participants increased their motivation, high proficiency participants decreased their motivation. However, neither of them were statistically significant (Z = -.845, p = .398 for low proficiency; Z = -.365, p = .715 for high proficiency participants). More specifically, both low (Pre *Mdn* = 72; Post *Mdn* = 75) and high (Pre *Mdn* = 77; Post *Mdn* = 79) proficiency participants slightly increased their intrinsic motivation. Regarding their extrinsic motivation, on the other hand, both low proficiency participants (Pre *Mdn* = 85.5; Post *Mdn* = 79.5) and high proficiency (Pre *Mdn* = 84.5; Post *Mdn* = 80.5) participants slightly decreased their extrinsic motivation during the treatment period. However, none of these changes were statistically significant.

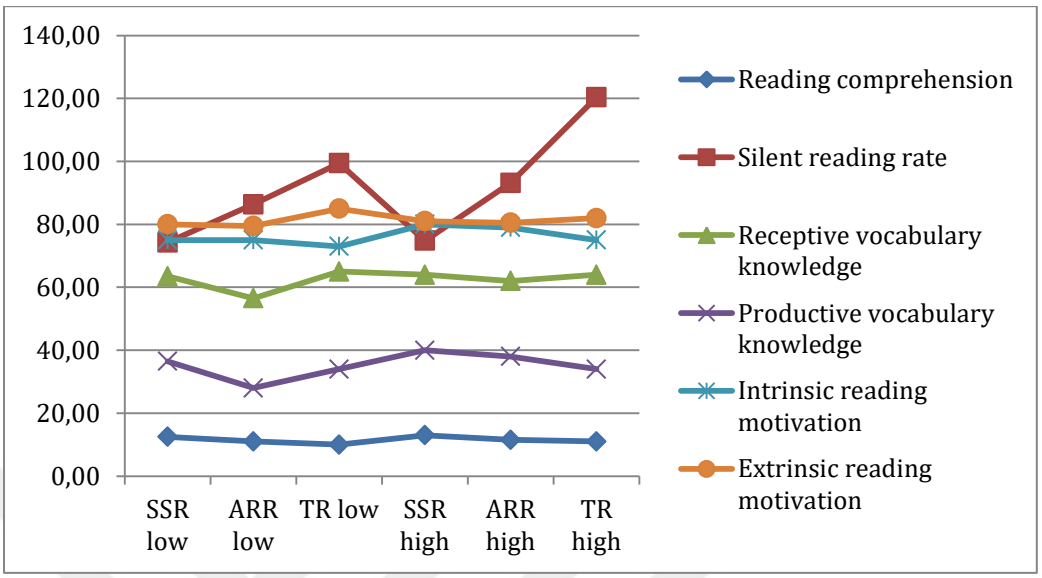
In the TR group, both low and high proficiency participants increased their overall reading motivation over a 10-week treatment period, yet these increases were not statistically significant (Z = -1.690, p = .091 for low; Z = -.405, p = .686 for high

proficiency participants). Specifically speaking, low proficiency participants decreased their intrinsic motivation (Pre *Mdn* = 76; Post *Mdn* = 73), yet increased their extrinsic motivation (Pre *Mdn* = 80; Post *Mdn* = 85). On the other hand, high proficiency participants decreased their intrinsic motivation (Pre *Mdn* = 79; Post *Mdn* = 75) while also increasing their extrinsic motivation (Pre *Mdn* = 76; Post *Mdn* = 82) over the treatment period. However, these changes did not elicit a statistically significant difference.

Research Question 1.2.c. Is there a difference among low-proficiency and high-proficiency EFL learners in terms of their gains across SSR, ARR, and TR treatments regarding their overall reading motivation?

A Kruskal Wallis test was administered to investigate the reading motivation of low and high proficiency participants across groups both for the pre and posttest. The results indicated that at the outset, there was not a statistically significant difference across low ($\chi^2(2) = 1.284$, $p = 0.526$) or high ($\chi^2(2) = .527$, $p = 0.768$) proficiency participants. With respect to the posttest, similarly, there was not a statistically significant difference among low ($\chi^2(2) = .665$, $p = 0.717$) or high ($\chi^2(2) = .414$, $p = 0.813$) proficiency participants across the the treatment groups.

In summary, the differences between low and high proficiency learners in each group are illustrated in Figure 12 below as follow:



Note. SSR low= Sustained silent reading low-proficiency participants; SSR high= Sustained silent reading high-proficiency participants; ARR low= Assisted repeated reading low-proficiency participants; ARR high= Assisted repeated reading high-proficiency participants; TR low= Traditional reading low-proficiency participants; TR high= Traditional reading high-proficiency participants

Figure 12. Posttest median scores of low and high proficiency learners for each measurement

5.2.4. Predictors of reading comprehension.

Research Question 2: Is there a relationship among L2 reading comprehension, silent reading rate, receptive and productive vocabulary knowledge, and reading motivation? If so, what is the nature of the relationship among these variables?

A Spearman rank order Correlation was run for all the independent variables at the pre and posttests in order to investigate the relationship among the variables (see Table 5.47). As demonstrated in Table 5.47, pre-receptive and pre-productive vocabulary knowledge had a medium correlation (r = .364, n = 41, $p < .05$) (Cohen, 1988, pp. 79-81).

Likewise, post-receptive and post-productive vocabulary knowledge had a moderately strong correlation (r = .559, n = 41, $p < .01$) (Cohen, 1988, pp. 79-81), which was also statistically significant.

As the Spearman rank order correlational analysis indicated, a weak positive correlation was found between silent reading rate and reading motivation (r = .339, n = 41, $p < .05$). Specifically speaking, silent reading rate positively and moderately correlated with extrinsic reading motivation (r = .378, n = 41, $p < .05$). To be more precise, regarding the dimensions of extrinsic reading motivation, there was a positive moderate correlation between recognition and silent reading rate (r = .439, n = 41, $p < .01$) and between competition and silent reading rate (r = .366, n = 41, $p < .05$).

Moreover, there was a weak positive correlation between receptive vocabulary and L2 reading comprehension (r = .188, n = 41, $p > .05$) and between productive vocabulary and L2 reading comprehension (r = .254, n = 41, $p > .05$), although not statistically significant.

Regarding reading motivation, intrinsic and extrinsic reading motivation had a moderate positive significant correlation (r = .440, n = 41, $p < .05$). On the other hand, a weak negative correlation was found between overall reading motivation and L2 reading comprehension, although not significantly (r = -.308, n = 41, $p > .05$). More specifically, there was a weak negative correlation both between intrinsic reading motivation and comprehension and between extrinsic reading motivation and L2 reading comprehension, none of which were statistically significant.

Table 5.47

Correlation matrix for dependent variables at the pre and post-tests (Spearman rho)

	Pretests (*N* = 41)							Posttests (*N* = 41)						
	GRC	SRR	RVK	PVK	MR	IMR	EMR	GRC	SRR	RVK	PVK	MR	IMR	EMR
GRC-pre	1.00	.062	.073	.265	-.161	-.228	-.120							
SRR-pre	.062	1.00	.056	.099	.152	.033	.175							
RVK-pre	.073	.056	1.00	.364*	-.063	-.051	-.133							
PVK-pre	.265	.099	.364*	1.00	-.223	-.085	-.296							
MR-pre	-.161	.152	-.063	-.223	1.00	.811**	.937**							
IMR-pre	-.228	.033	-.051	-.085	.811**	1.00	.604**							
EMR-pre	-.120	.175	-.133	-.296	.937**	.604**	1.00							
GRC-post								1.00	-.114	.188	.254	-.308	-.228	-.243
SRR-post								-.114	1.00	-.158	-.141	.339*	.245	.378*
RVK-post								.188	-.158	1.00	.559**	-.137	-.183	-.056
PVK-post								.254	-.141	.559**	1.00	-.151	.031	-.164
MR-post								-.308	.339*	-.137	-.151	1.00	.754**	.889**
IMR-post								-.228	.245	-.183	.031	.754**	1.00	.440**
EMR-post								-.243	.378*	-.056	-.164	.889**	.440**	1.00

Note. GRC= General reading comprehension, SRR= Silent reading rate, RVK= Receptive vocabulary knowledge, PVK= Productive vocabulary knowledge, MR= Motivation for reading, IMR= Intrinsic motivation for reading, EMR= Extrinsic motivation for reading

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Research Question 3. What are the predictors of L2 reading comprehension?

To further investigate which factors predicted the participants' reading comprehension, a multiple regression analysis was run to predict L2 reading comprehension from seven predictor variables—silent reading rate, receptive and productive vocabulary knowledge, intrinsic and extrinsic reading motivation, L2 language proficiency, and treatment group—which were selected for the model using the Enter method. The results of the multiple regression analysis demonstrated a significant model, $F(7, 33) = 3.664$, $p < .05$, $R^2 = .437$. From these results, it can be stated that the model predicted 43% of L2 reading comprehension. That is to say, 43% of L2 reading comprehension can be explained by these independent variables. Among seven predictor variables, silent reading rate ($b = .023$, $t = 2.124$, $p < .05$), intrinsic reading motivation ($b = -.106$, $t = -2.180$, $p < .05$), and treatment group ($b = -1.331$, $t = -3.519$, $p < .01$) significantly predicted reading comprehension. On the other hand, the other predictor variables (i.e., receptive and productive vocabulary knowledge, extrinsic reading motivation, or L2 language proficiency) did not statistically significantly contribute to L2 reading comprehension.

5.2.5. Summary of quantitative data results.

In the present chapter, the quantitative results of the data have been presented with regards to the research questions. The research questions overall aimed at investigating the possible effects of three types of treatments—SSR ($n = 14$), ARR ($n = 13$), and TR ($n = 14$)—on Turkish university-level EFL learners' reading

comprehension and silent reading rate, receptive and productive vocabulary knowledge, and motivation for reading. In Table 5.48 below, the overall gains made by each treatment group are presented.

Table 5.48

Pretest-Posttest gains made (in median scores) by each experimental group

Treatment Group	GRC	SRR	RVK	PVK	IMR	EMR
Sustained Silent Reading	+3*	-19.66 wpm*	+8*	+7*	+2	-6
Assisted Repeated Reading	+0.5	-47.65 wpm*	+5	+7*	+1.5	-.5.5
Traditional Reading	+1	+14.41 wpm	+9.68*	+7.5*	-4	+6.5

Note. GRC = General reading comprehension, SRR = Silent reading rate, RVK = Receptive vocabulary knowledge, PVK = Productive vocabulary knowledge, IMR = Intrinsic motivation for reading, EMR = Extrinsic motivation for reading.
The plus sign (+) demonstrates a gain whereas the minus sign (-) illustrates a decrease. The asterisk sign (*) shows a statistically significant change ($p < .05$).

After implementing the methods of analysis necessary for answering the research questions, the results of descriptive statistics and Wilcoxon signed rank tests indicated that SSR participants significantly improved their L2 reading comprehension whereas those in the ARR and TR groups did not. Regarding the silent reading rate, the SSR and ARR group participants significantly decreased it, which –however- makes it necessary here to compare reading comprehension and silent reading rate. Although SSR and ARR groups decreased their silent reading rate at the posttest, they improved their reading comprehension skills whereas there is a very slight increase in the reading comprehension median scores of the TR group. With regards to receptive vocabulary knowledge, both SSR and TR groups increased their median scores significantly- the TR group made greater gains though-, yet the ARR group participants experienced only slight increases. For productive vocabulary knowledge, on the other hand, although all the three groups made statistically significant gains, the TR group participants made slightly more gains

than those in the SSR and ARR group. At the pretest, despite the fact that the median scores of ARR and TR group were similar, TR made greater gains at the posttest when compared to ARR. In terms of intrinsic reading motivation, both SSR and ARR groups made slight gains in their median scores whereas the TR group slightly decreased their intrinsic motivation. On the other hand, whereas the SSR and ARR groups slightly decreased their extrinsic reading motivation, the TR group slightly increased their extrinsic reading motivation. However, none of these gains or decreases in motivation was statistically significant for any treatment group.

As to the gains made by low and high proficiency learners, Table 5.49 summarizes the changes from pre to post-test over the 10-week treatment period:

Table 5.49

Pretest-posttest gains made (in median scores) by low and high proficiency learners

Treatment Group	Proficiency Level	GRC	SRR	RVK	PVK	IMR	EMR
SSR	Low	+2*	-29.95 wpm*	+3	+3*	+4	+5.5
	High	+3*	-22.81 wpm*	+7*	+13*	+1	-7
ARR	Low	+1	-32.74 wpm*	+4.5	+6	+3	-6
	High	-0.50	-67.81 wpm*	=	+6.5*	+2	-4
TR	Low	=	+5.19 wpm	+9.35*	+9*	-3	+5
	High	=	+18.82 wpm	+10*	+7*	-4	+6

Note. GRC = General reading comprehension, SRR = Silent reading rate, RVK = Receptive vocabulary knowledge, PVK = Productive vocabulary knowledge, IMR = Intrinsic motivation for reading, EMR = Extrinsic motivation for reading.
The plus sign (+) demonstrates a gain, the minus sign (-) illustrates a decrease, and the equality sign (=) shows equality. The asterisk sign (*) shows a statistically significant change ($p < .05$).

5.3. Chapter Summary

In the present chapter, the quantitative results of the data have been presented with regard to the research questions. The research questions overall aimed at investigating the possible effects of SSR, ARR, and TR on Turkish university-level EFL learners' reading comprehension and silent reading rate, receptive and productive vocabulary knowledge, and on their motivation for reading. After implementing the methods of analysis necessary for answering the research questions, the results indicated that SSR and TR presented better results when compared to the other reading instructional approach; i.e., ARR.

In the next chapter (Chapter 6), interpretation of these findings is presented.

CHAPTER VI

DISCUSSION

6.0. Introduction

Adopting a mixed-method approach, this quasi-experimental study, *first of all*, aimed (1) to investigate the effects of 10-week Sustained Silent Reading (SSR), Assisted Repeated Reading (ARR), and Traditional Reading (TR) instruction on Turkish university-level EFL students' L2 reading comprehension and silent reading rate, vocabulary knowledge, and on individual factors (i.e., L2 reading motivation and attitudes toward reading in L2) by also taking into consideration the possible effect of different proficiency levels (i.e., low and high-proficiency participants) both *within* and *across* groups. The *second* aim was (2) to investigate the relationship among L2 reading comprehension, silent reading rate, vocabulary knowledge (i.e., receptive and productive), and reading motivation (i.e., intrinsic and extrinsic). The *third* and the final aim was (3) to discover the predictors of L2 reading comprehension.

The results of the study were reported in the previous chapter (please see Chapter V). And in accordance with the aims of this study, this chapter presents a discussion of these findings in relation to the research questions of this study. Each section and sub-

section in the chapter begins with (a) a summary of findings and (b) an interpretation of these findings is then made. Afterwards, (c) the chapter closes by a summary.

6.1. Discussion of Research Question 1

In the light of the first aim of this study, RQ1 tapped whether there would be an effect of SSR, ARR, and TR on EFL learners' (a) reading comprehension and silent reading rate, (b) vocabulary knowledge, and (c) reading motivation over the 10-week treatment period. And the sub-questions of the first research question, namely RQ1.1. and RQ1.2., investigated whether the effects of SSR, ARR, and TR treatments on these variables would significantly vary *within* and *across* treatment groups according to different proficiency levels.

6.1.1. Reading comprehension.

In relation to *research question 1(a)*, findings of the reading comprehension test indicated that the SSR group participants made the highest gains and significantly outperformed those in the other two groups (i.e., ARR and TR) whereas the ARR group participants made slight and nonsignificant gains from pre to posttest over the 10-week treatment period. On the other hand, those in the TR group did not improve their reading comprehension (see Table 5.26).

The overall gains made by the SSR group in reading comprehension can be attributed to the consistent and rich exposure to L2 input (through a variety of graded readers) that they received and the overall amount (i.e., an average of 65.524 words) they

read during the treatment period. Because the SSR participants regularly read graded readers for a period of 50-minutes per week throughout a 10-week timespan, they had consistent exposure to a variety of L2 texts in the course of this period, where they did independent silent reading for pleasure. And consequently, all these are considered to help the SSR participants improve their comprehension. The qualitative data from student reflections and interviews also seem to support this finding. As one participant noted in one of her reflections, "*I read 5 books until this time and (reading them) provided me to [...] understand more efficiently*" (Participant 1, SSR, Reflection, Session 10). The interview data similarly indicated that the majority of the SSR participants (*n* = 10, 67%) thought that they improved their comprehension: "*I learned how to comprehend a text*", said one participant (Participant 1, SSR, Interview) and another stated "*I can comprehend better now*" (Participant 7, SSR, Interview). Still, another participant pointed out that she used to read hesitantly when she read something in English, yet she could read comfortably and could comprehend better after the SSR treatment.

With respect to the ARR group, the participants in this group slightly increased their reading comprehension mean scores from pre to posttest. An interpretation for this finding can be that they could not improve their low-level skills as once the low-level skills are automatized, cognitive efforts can be used for better comprehension, in accordance with the Automaticity Theory (LaBerge & Samuels, 1974). And taking into consideration their post-test reading rates (i.e., 86.88 wpm) —which is rather slow— the ARR participants in this study seem that they were not able to automatize these low-level skills, resulting in not being able to make significant gains in their reading comprehension because as also stated in the literature, reading less than 100 words per

minute (wpm) is considered to negatively affect comprehension (Nation, 2005b). Moreover, the slight increase of ARR participants in reading comprehension may be considered as a consequence of the nature of ARR instruction: ARR does not help improve comprehension and may further demotivate participants due to its repetitive nature (please see section 6.1.2. for detailed interpretations). In fact, although reading the same text repeatedly is stated to help comprehension of the same text by helping readers allocate greater mental space for higher-order comprehension processes (Koda, 2005), it does not necessarily help learners transfer their comprehension abilities to other texts—or rather, immediately. Thus, it can eventually be suggested that the 10-week time-period was not enough for the ARR participants to automatize their low-level skills or to transfer their comprehension abilities to other texts.

Likewise the ARR group, the TR group did not make any significant gains in relation to their reading comprehension. This implies that since the TR participants engaged in traditional reading instruction which included reading short texts, they were not exposed to L2 reading input as much as the SSR group. Indeed, the TR participants' engagement in reading comprehension during the treatment was limited to answering few reading comprehension questions followed by reading average-length texts of around 300-500 words, and they were rather occupied with other pre- and post-reading activities which included listening, speaking, discussion, vocabulary, and grammar activities. Supportive of this finding, none of the participants indicated in their reflections that they felt they improved their comprehension.

Accordingly, all the results with respect to each treatment group can be rationalized with the amount (i.e., average number of words) of reading within each

treatment group since reading amount is considered a predictor of successful reading comprehension (Guthrie et al., 1999). For a period of 10-weeks, the SSR group participants in this study read a total mean of 65.524 words (a mean of ≈6.552 words per week) whereas the ARR group participants read 25.983 words (≈2.598 mean words per week) and those in the TR group read 8.866 words (≈886 mean words per week). This means that the SSR participants read two times and a half and seven times more than that the ARR and the TR participants read, respectively. Therefore, considering that the SSR group participants read more than the ARR and the TR group participants, their gains in reading comprehension might thus be explained by the larger amounts of reading they engaged during the treatment.

Overall, only the SSR group participants made statistically significant gains in terms of L2 reading comprehension, indicating that SSR treatment seems to contribute more to comprehension than the ARR or the TR instruction.

6.1.1.1. Reading comprehension and proficiency.

As for the proficiency-based differences in reading comprehension, an analysis of the results of the low and high-proficiency participants *within* groups *in relation to research question 1.1.(a)* showed that in the SSR group, both low and high-proficiency participants made statistically significant gains (see Table 5.27). As mentioned previously, this suggests that the nature of the *SSR* instruction (i.e., self-selected 50-minute sustained silent reading for each week) and the materials (i.e., graded readers) helped both low and high-proficiency participants enhance their L2 reading comprehension. In the *ARR* group, on the other hand, findings indicated that whereas the

low-proficiency participants made slight (and nonsignificant) gains, the high-proficiency participants slightly (non-significantly) decreased their comprehension performance from pre to posttest (see Table 5.27). These results show that the ARR instruction does not help any improvement of comprehension, and it caused demotivation among the high-proficiency participants because of its repetitive nature. As also indicated by the qualitative data, some participants stated they did not sometimes read the texts for three times; indeed, some part of their reading involved text sampling. Thus, the ARR instruction may have further demotivated the higher proficiency levels, which might have correspondingly affected their reading engagement— which impeded their comprehension skills. On the other hand, subsequent rereadings of the same text might have provided the low-proficiency ARR participants with a more secure feeling in terms of comprehension since they were exposed to the texts several times— one with audio support. As for the *TR* group and proficiency effect, neither low nor high-proficiency participants experienced a significant change in their reading comprehension (see Table 5.27). As discussed earlier, the TR instruction did not have a considerable effect on reading comprehension probably due to the limited amount of L2 input through which the participants could practice and enhance their comprehension skills.

Regarding *research question 1.2.(a)*, findings overall showed that the SSR instruction seemed to be the most effective instruction for contributing to both low and high proficiency participants' reading comprehension. As mentioned before, these findings can be interpreted by the fact that the SSR participants read large amounts of input-rich materials (i.e., graded readers carefully controlled in terms of vocabulary and

language) regularly for a 10-week time period, which consequently helped them comprehend better.

6.1.2. Silent reading rate

Regarding *research question 1(a)*, findings with respect to silent reading rate indicated significant decreases among the SSR and ARR group participants, where the decrease in the SSR group was slightly higher than that in the ARR group. On the other hand, the TR group had a slight tendency to increase their silent reading rate, although not significantly (see Table 5.29).

One possible interpretation behind the finding that the TR participants improved their silent reading rate by reading faster might be the follow-up reading activities comprising vocabulary, reading comprehension, and discussion questions—which required a close study of the texts the participants read. Although the researcher did not specifically ask participants to reread the texts, such activities steered them to reread the texts because in traditional reading instruction, the participants—in a way—are required to refer back to the text in order to complete the activities (e.g., skimming the text for finding the main idea, scanning the text for finding the meaning of a word, et cetera). Although I cannot explicitly specify how much rereading was done in the traditional reading group (see also McLean & Rouault, 2017), they reread the texts and in a faster rate to be able to complete such follow-up activities, which might have helped them practice their reading fluency skills. And why the ARR instruction did not result in improvements in silent reading rate while the TR did might be explained by the length of the texts that were reread: Given that the TR participants read shorter pieces of texts

repeatedly when compared to the ARR participants, the TR participants practiced their lower-level skills with short intervals— which consequently helped them enhance their silent reading rate. In sum, regarding the silent reading rate performance of the TR group, although there were no significant gains, there was a trend of improvement.

On the other hand, the significant decrease in the silent reading rate of the SSR and ARR groups can be explained in terms of the following interpretations:

First of all, the testing procedure and the nature of the tests might have caused this regression. To be more precise, the participants were informed that reading comprehension questions would follow the reading of the text and that they would not have the opportunity to go back to the texts while answering those comprehension questions. Considering that the participants had experienced this procedure in the pre-test as well, they might have felt the need to remember the details of the text and thus slowed down their silent reading rate to be able to answer the comprehension questions correctly at the post-test (i.e., they *robbed Peter to pay Paul,* so to say), which is in line with Walczyk's Compensatory Encoding Model (1995). Walczyk proposes that reading slowly is one of the compensatory mechanisms— in this case, a mechanism for comprehending better. The results of the comprehension test (see Table 5.26) also supports this explanation since both SSR and ARR group participants comprehended more than the TR group participants did at the post-test. And as to why the SSR and ARR participants slowed down their rate whereas the TR participants did not, it can be explained by the instructional materials: While the TR participants read relatively short texts independent of each other each week, the SSR and ARR participants read graded readers (i.e., chapters of graded readers in tandem with one another)— which I think provided many

opportunities to practice the comprehension skills of those in the SSR and ARR group. And throughout this procedure, in order to fully understand what they were reading (i.e., graded readers), the SSR and ARR group participants probably compensated for their comprehension by reading slowly. For example, one participant wrote the following in her reflection: "*Now, I do not read to be the fastest, I am reading to feel the characters and the events going on in the book*" (Participant 8, SSR, Reflection, Session 2). From the ARR group, another participant similarly stated the following:

> *While I was reading, I recognized something important for me. That was the speed of my reading. I was reading quickly but I didn't get some information about the book. But then, when I read slowly, I thought that was better because by doing like this I could get some information, about what the book said*. (Participant 6, ARR, Reflection)

From another perspective, the comprehension levels of SSR (approximately 71 per cent) and ARR (nearly 65 per cent) participants seem to support this rationalization given the optimum comprehension rate (i.e., 70 per cent) in the literature (Anderson, 2018); that is to say, they comprehended well. Besides, participant reflections also indicate that most SSR participants slowed down their rate throughout the treatment period. Some participants —upon noticing that they have comprehension problems— stated they purposefully started reading slower during the treatment sessions in order to comprehend what they read (i.e., graded readers). For example, one participant from the SSR group noted that "*I try to read my book slowly this time because I want to see every single detail. It is better for me than just reading because the main thing is understanding*"

(Participant 9, SSR, Reflection, Session 8). Another comment raised by another participant in the SSR group is as follow: "*When I started reading my book, I read a lot in the beginning, but then I slowed down and became more patient about the story. I found out that the most important thing is not the speed of reading, but understanding what you read.* (Participant 15, SSR, Reflection, Session 2). In the interview, several participants made similar comments which suggest that this decrease was intentional:

> *I normally used to read really fast. However, I felt that there were some points that I miss about the story. Thus, I learned to read much more slowly and to try understanding what I read. This way, I felt much better because I used to miss lots of things earlier.* (Participant 1, SSR, Interview)

> *I learned that rather than reading fast, reading with a good understanding is important. I was a fan of reading fast; however, when you read it fast, nothing happens. I think [reading slower] is much better. Even if I read slowly now, my understanding and comprehension increased.* (Participant 12, SSR, Interview)

> *I read slowly to understand more. I noticed that I used to read just to read it, in the past. Now I read more slowly and try to understand better. I might read one paragraph instead of two paragraphs, but I think I understand.* (Participant 14, SSR, Interview)

When I read in English, I deliberately read slowly to grasp better.

(Participant 7, SSR, Interview)

As these comments imply, over time, they focused more on comprehension rather than on rate. Moreover, since fluency is a combination of silent reading rate and comprehension, statistical findings of silent reading rate indicate that the SSR and ARR participants did not develop their reading fluency abilities, resulting in an effort for better reading comprehension at the expense of rate. Thus, in this study, the SSR and ARR participants increased their reading comprehension at the expense of silent reading rate. The interview results also seem to support this interpretation. Of 29 participants who were interviewed from the SSR (n = 15) and the ARR (n = 14) group, all of them indicated the same points: For example, one participant from the SSR group stated that "*I read slower at the posttest to read the texts more in depth, to comprehend more.*." (Participant 14, SSR, Interview). She also noted that she "*intentionally prolonged the time to comprehend better*" (Participant 14, SSR, Interview). To summarize, it can be put forward that the amount and time of reading that the SSR and ARR participants were exposed to were not indeed sufficient for them to improve their fluency (i.e., reading rate + reading comprehension). Findings from the interviews with the ARR group indicate that they did not have enough exposure to texts in different contexts because they repeatedly read a text three times. Therefore, they were presumably bored with reading three times and lost their concentration from time to time, and it is thus probable that "part of their reading involved text sampling" (Taguchi & Gorsuch, 2002, p. 58). Accordingly, the ARR group participants, particularly high-proficiency participants, "may not have practiced their word recognition skills to a full extent while re-reading the text." (p. 58), for a lot of

practice in different contexts is necessary for building automaticity. The qualitative data from interview sessions also support such an interpretation: For example, one ARR group participant noted that "*To be frank, I read over the text for the third time; I did not read the text in detail. I just let it flow*" (Participant 28, ARR, Interview). Another participant similarly stated that "*The way I read the texts for the third time was different than the way I had read them for the first time*" (Participant 16, ARR, Interview). Perhaps this is one of the reasons why they read slowly at the posttest.

Secondly, another reason might be based on an argument in the field that reading simpler texts—that is, below the learners' proficiency level—results in more fluency development (Beglar & Hunt, 2014). On the other hand, in this study, as mentioned earlier, the appropriacy of the reading materials in terms of the SSR and ARR participants' proficiency level varied: The SSR participants self-selected the materials they read and when they selected books above their level or upgraded the level of the books they read, some started to read slowly. For example, one participant in the SSR group noted the following: "*Today, I changed my book, and I like the story this time because this isn't boring. It is Stage 6, but I can understand it for now. Because I chose Stage 6, I should read a bit slowly to understand well*" (Participant 9, SSR, Reflection, Session 3). Another participant similarly stated that "*At the beginning, I read Stage 4 books but now I am reading a Stage 5 book. I can understand the book and the story, but I began to read slowly*" (Participant 10, SSR, Reflection, Session 4). On the other hand, in the ARR group which involved mixed-ability learners, all the participants read the same materials whose levels might have created some challenges for some participants. Thus, not reading simpler texts might have been an effective factor in slowing down the

SSR and ARR participants' silent reading rate over time because the TR group participants who slightly improved their reading rate had read short unchallenging (and relatively easy) texts from coursebooks during the treatment period. As it is also indicated in the literature, reading easier texts repeatedly improves sight recognition of the words in the text and leads to increasing reading rate (Blum et al., 1995; Gorsuch & Taguchi, 2008; Taguchi, 1997; Taguchi & Gorsuch, 2002).

To summarize, findings in relation to *research question 1(a)* indicated whereas the TR group showed slight improvements in their silent reading rate and comprehension, the ARR group showed slight increases in comprehension at the expense of reading rate. Having said that, however, the SSR group showed a significant improvement in reading comprehension at the expense of their silent reading rate.

6.1.2.1. Silent reading rate and proficiency.

In relation to *research question 1.1.(a)* which investigated the possible effect of proficiency on silent reading rate *within* groups, both low and high proficiency participants in the *SSR group* significantly decreased their reading rate; however, the decrease of the low-proficiency participants (-31.14 wpm) was higher than that of the high-proficiency participants (-20.7 wpm) (see Table 5.32). It is considered that reading in a flow state—in the light of the Flow Theory (Csikszentmihalyi, 1991)—helped higher proficiency participants read faster since most probably, the low-proficiency participants could not enter to the flow state due to their proficiency level and their small vocabulary size— both of which would constitute an impediment to enter a flow state. Like in the SSR group, the decrease in the *ARR group* was statistically significant among both low

and high-proficiency participants (see Table 5.32). However, high-proficiency participants in the ARR group read much faster than the low-proficiency participants at the post-test— just as they did at the pre-test. On the other hand, the decrease of high-proficiency participants was comparatively higher than those of low-proficiency participants— unlike those in the SSR group. As noted earlier, this finding can be interpreted by the nature of ARR instruction: From the perspective of high-proficiency participants, since their some part of their repeated reading involved text sampling and some did not fully engage in repeatedly reading three times throughout the 10-week treatment procedure (as indicated in reflections and interviews), they could not have as many opportunities as the low-proficiency participants had to practice and to enhance their silent reading rate during this time period. Thus, the high-proficiency participants read much slower than the low-proficiency participants because they did not practice their low-level reading skills. Besides, the texts they read during the 3-hour traditional reading instruction did not provide extended opportunities for them to practice their reading rate. As also mentioned earlier, only the *TR group* participants increased their reading rate, yet neither low nor high-proficiency participants experienced significant gains. As for the proficiency effect, findings indicated that the high-proficiency participants made slightly higher gains than the low-proficiency participants within the TR group (see Table 5.32). Considering that high-proficiency participants had already had a certain and a higher amount of reading rate when compared to the low-proficiency participants, they were able to make slightly more gains. Besides, as their comprehension skills were better, they could probably read faster and improve their reading rate slightly more than the low-proficiency participants.

Regarding *research question 1.2.(a)*, in sum, these findings indicate that the TR instruction seemed to be more effective for both low and high-proficiency participants in terms of contributing to silent reading rate. As mentioned before, reading activities which might have led the TR participants to reread the text for particular purposes might have promoted their reading rate. On the other hand, it is also worth noting that although they improved their rate, these gains did not come along with gains in reading comprehension: That TR participants could comprehend 58% of the reading texts, which is a rather unsatisfactory comprehension level when compared to the optimum percentage for comprehension (i.e., 70%) (Anderson, 2018; Hedgcock & Ferris, 2018; Hu & Nation, 2000; Laufer, 1992, Nation, 2005b), implies that they did not comprehend the texts well. And their higher reading rates with an unsatisfactory level of comprehension may provide support for the claim that they sacrificed their comprehension at the expense of reading rate.

6.1.3. Vocabulary knowledge.

6.1.3.1. Receptive vocabulary knowledge.

In relation to *research question 1(b)*, regarding receptive vocabulary knowledge, the SSR and TR group participants made statistically significant gains whereas those in the ARR group did not experience any statistically significant gains. However, the gains of the TR group were slightly higher than those made by the SSR group (see Table 5.34).

That the SSR treatment in this study resulted in a significant improvement in receptive vocabulary knowledge can be explained by the nature of the SSR instruction

and the materials: Since the materials they read were graded readers in which, as Schmitt (2008) points out, the vocabulary loads were fine-tuned for the learners' level and systematically recycled (p. 349), the SSR participants were exposed to a certain amount of vocabulary at certain frequency levels for a 10-week time period. It is very likely that encountering certain vocabulary repeatedly on a regular basis contributed to their receptive vocabulary knowledge. Several SSR participants stated both in their reflections and interviews that they developed vocabulary learning strategies (such as inferring meaning from the text), which promoted their learning of vocabulary. For example, one SSR participant noted that she discovered how to infer the meaning of an unknown word from the context without looking up a dictionary: "*While reading, I realized that 'cry' can be used when we want to say 'shout'*" (Participant 11, SSR, Reflection, Session 5). Another SSR participant stated that "*In the past, I got bored easily while reading because of unknown words. However, I can guess the meaning now*" (Participant 13, SSR, Reflection, Session 7). Similarly, one of the ARR participants stated that she did not use to read in English since she found it boring to check up every single word on the dictionary. However, during the treatment, she learned how to cope with such difficulties by developing some strategies. As she noted:

> *I did not use to read books in English at all. Why? Because there are many unknown words and I needed to check the dictionary as I felt the need to know their meanings to understand what I was reading. However, now, I can understand their meanings when I see them, and I think to myself 'Maybe it means this, anyway, I can also check it later'. In the past, when I tried to read such books in English, I used to check every single unknown*

word on the dictionary and take notes. Very boring!. (Participant 4, ARR, Interview)

As these reflections and comments imply, reading several graded readers constantly contributed to the unconscious development of vocabulary learning strategies and thus to their receptive vocabulary knowledge. In accordance with this, it is also worth noting that in addition to learning vocabulary from graded readers directly, the SSR participants developed vocabulary learning strategies and word-attack skills, which might have also been promoted partly due to the 3-hour traditional reading instruction they received.

Apart from the SSR, the TR instruction also improved participants' receptive vocabulary knowledge significantly. One possible explanation behind this finding showing the effectiveness of the TR on receptive vocabulary knowledge could be that the TR participants received traditional reading instruction during the treatment period: Since the TR instruction involves intensive reading through explicit vocabulary activities as a prior or as a follow-up activity to reading the text, the participants might have improved their receptive vocabulary knowledge. More specifically, the intensive reading instruction comprising these vocabulary activities might have led to the development of explicit and implicit vocabulary learning strategies and helped them use those strategies in L2. Moreover, they were exposed to these vocabulary activities 6-hours a week, unlike the other two groups. Therefore, this 6-hours of intensive reading instruction might have affected the improvement of incidental vocabulary knowledge significantly. Qualitative data are also in line with this finding: As one participant in the TR group noted, "*I have learned several words. This lesson is good for learning words*" (Participant 30, TR,

Reflection, Session 4 & 5). Similarly, another participant stated that "*To me, this class helps me enlarge my vocabulary knowledge*" (Participant 32, TR, Reflection, Session 4). Overall, the 6-hours of TR instruction seemed to contribute to receptive vocabulary knowledge significantly.

As mentioned earlier, unlike the SSR and TR group participants, the ARR group participants could not improve their receptive vocabulary knowledge; they only made slight (and nonsignificant) gains by increasing their mean scores from pre to posttest. This finding might be explained by the fact that although they had the same amount of intensive vocabulary instruction (i.e., 3 hours) and engaged in reading activities like the SSR group, during the remaining 3-hours they were exposed to less amount of input due to the nature of instruction (i.e., repeated reading). Thus, they could read only two graded readers (i.e., approximately 25.983 words) whereas the SSR group read a mean of 65.524 words within this same period. To put it another way, by requiring the ARR participants to reread the same passage, repeatedly reading a text seemed to prevent the ARR participants from being exposed to a breadth of vocabulary (Homan, Klesius, & Hite, 1993) as well as to different contexts where these vocabularies and opportunities for learning these words were created.

6.1.3.1.1. Receptive vocabulary knowledge and proficiency.

Regarding the effect of proficiency *within* groups in relation to *research question 1.1.(b)*, whereas the low-proficiency participants did not make any significant gains and only increased their mean scores from pre to posttest slightly, the high-proficiency participants made significant gains in the *SSR group* (see Table 5.36). This finding

suggests that higher level of proficiency appeared to allow the high-proficiency SSR participants to benefit from the reading materials and the SSR instruction, by also enabling them to experience fewer difficulties in learning vocabulary while reading—unlike the low-proficiency participants. Needless to say, proficiency has a considerable effect on vocabulary learning (Zahar, Cobb, & Spada, 2001 as cited in Webb & Chang, 2012). Accordingly, more proficient learners —when compared to low proficient learners— are more likely to incidentally acquire vocabulary with fewer encounters while reading since they are more adept at recognizing the unknown words as well as at inferring their meanings by using contextual clues while reading. On the other hand, lower proficiency learners cannot be expected to recognize the unknown words as well as to infer their meanings by using contextual clues while reading (i.e., derive word meaning from context) (Laufer, 2005) with their limited language abilities and proficiency, namely, with their limited linguistic resource base. That is why only the high-proficiency participants in the SSR group could make significant gains in their receptive vocabulary knowledge in this study. In the *TR group*, on the other hand, both low and high-proficiency participants significantly increased their receptive vocabulary knowledge (see Table 5.36). Overall, explicit vocabulary activities seemed to be effective for enhancing both low and high-proficiency participants' receptive vocabulary knowledge. For example, Hedgcock and Ferris (2018) refer to research evidence in the literature by emphasizing that "explicit instruction accelerates vocabulary learning". As mentioned previously, the TR group participants engaged in traditional intensive explicit vocabulary instruction for 6-hours per week, which is considered to result in significant gains for both low and high-proficiency participants in the group. Besides, such instruction seemed

to be more effective for enhancing the receptive vocabulary of high-proficiency participants who made slightly higher gains than the low-proficiency participants. On the other hand, in the *ARR group*, neither low nor high-proficiency participants made statistically significant gains; they just slightly increased their receptive vocabulary mean scores from pre to posttest (see Table 5.36). Moreover, the ARR instruction seemed to contribute more to low-proficiency participants in relation to receptive vocabulary knowledge, although not significantly. Reading three times gave the low-proficiency participants impetus to recognize the unknown words as well as to infer their meanings by using contextual clues while reading and helped them improve their receptive vocabulary whereas it did not contribute to high-proficiency participants who were most probably bored with reading three times.

6.1.3.1.2. Summary of the discussion on receptive vocabulary knowledge.

Taken as a whole, all these findings show that the 3-hours of SSR instruction in combination of 3-hours of explicit vocabulary instruction was significantly effective in terms of enhancing receptive vocabulary knowledge, in particular of those in the high-proficiency group—which suggests that exposing low proficiency learners to input for enhancing their receptive vocabulary was not very effective whereas the high-proficiency learners could benefit from it more. Moreover, the significant gains of the TR group participants indicated that the 6-hours of intensive reading instruction was as effective as (in fact, slightly more effective than) the SSR instruction (i.e., 3-hours of sustained silent reading + 3-hours of intensive reading instruction). In fact, across the groups, findings indicated that the TR instruction was the most effective instruction than the SSR or the

ARR in terms of enhancing both low and high-proficiency participants' receptive vocabulary knowledge, and the gains of the higher-proficiency group were slightly higher. On the other hand, the ARR instruction (i.e., 3-hours of ARR instruction in combination with 3-hours of intensive reading instruction) did not result in significant gains in receptive vocabulary. More specifically, repeated exposure to input for learning vocabulary was not found to be very effective for high proficiency participants whereas the low-proficiency learners could benefit from it to some extent.

6.1.3.2. Productive vocabulary knowledge.

Regarding *research question 1(b),* findings in relation to productive vocabulary knowledge indicated that all the three groups made statistically significant gains. However, the TR group made slightly higher gains than those made by the SSR and the ARR group, and the SSR and ARR groups yielded similar gains (see Table 5.38). Nevertheless, whereas the SSR and TR groups made significant gains in both low and high-frequency vocabulary in all bands (i.e., 2K, 3K, 5K, UWL, 1OK), the ARR group made significant gains only in the 3K frequency band (see Table 5.39).

The finding that the participants in all the three groups made statistically significant gains in the productive vocabulary test could be interpreted with the post-reading activities that were used in each treatment group: The participants in all the three treatment groups engaged in reading activities (see Chapter IV—Methodology) either before or after completing the reading sessions and engaged in output-oriented activities (i.e., reading activities), which might have led them to enhance their productive vocabulary knowledge. In other words, the participants who engaged in those activities

felt the communicative need to use vocabulary they encountered while reading, particularly those in the SSR and the ARR group: For example, the SSR and ARR group participants engaged in reading activities and in the follow-up whole-class discussions in which they actively took part in, which required them to either speak or write about the materials they read (see Appendix A for the activities used in SSR and ARR groups weekly). For example, regarding these activities, one SSR participant made the following comment:

> *For example, in the reading activities, we share our insights about our books. By doing so, I can keep the words in my mind. For example, I would like to tell something about the book, and then I need to use the words I learned from the book.* (Participant 12, SSR, Interview)

This comment highlights the role that the reading activities played: they acted as pushed-output activities (Swain, 1995). Accordingly, the positive effects of reading activities on productive vocabulary knowledge can be explained by the Output Hypothesis (Swain, 1995, 2005). That is to say, post-reading activities employed in all the three treatment groups are, in a way, considered to contribute to the participants' productive vocabulary knowledge, by prompting them to produce those words in a meaningful context. Qualitative data from interviews seem to support this interpretation as well since some participants in the SSR and in the ARR group stated that they learned more words and were able to use them thanks to the follow-up reading activities because they thought they needed to use vocabulary items in the book during those activities. As another participant from the SSR group noted, "*I can always remember the vocabulary I used in*

the activities. For example, while talking about the book, I would like to say something about an event, a character and I have to use that specific word to express myself. Then, I think about that word, I remember it from the book" (Participant 11, SSR, Interview). Similar to the reading activities in the SSR and ARR groups, the intensive reading instruction that the TR participants received comprised several different pre and post-reading vocabulary activities, and that is why the TR group made comparatively higher gains than the SSR and the ARR groups.

Apart from the reading activities, moreover, the SSR and ARR instructions were implemented in combination with 3-hours of intensive reading instruction where explicit vocabulary activities and explicit strategy training were involved. Given that participants' conscious effort is necessary for strengthening the connection between receptive and productive vocabulary (Yamamoto, 2011), supporting the SSR and the ARR instruction with intensive reading instruction might have also helped the SSR and the ARR participants enhance their productive vocabulary. The finding that the SSR group made significant gains may also result from the materials since reading graded readers help retain not only receptive but also productive vocabulary (Yamamoto, 2011).

At this point, however, one might wonder how the ARR participants were able to significantly improve their productive vocabulary whereas they could not make significant gains in their receptive vocabulary given that receptive vocabulary is considered to develop before productive vocabulary. On the contrary to the supporters of this developmental approach, from another point of view, findings of this study seem to support the componential approach to receptive-productive relationship. As it is indicated, "productive vocabulary progresses as fast as or even faster than their receptive

one” (Zheng, 2009, p. 181). Furthermore, when this significant increase in productive vocabulary is examined, it can be seen that this increase was statistically significant only at the 3K frequency band, which promoted the significant increase in the overall productive vocabulary level as well. In fact, the significant changes in the 3K level seem to confirm the effect of the reading activities. Considering the materials the ARR participants read (i.e., two graded readers: The Amsterdam Connection: B1; Misery: C1), it can be seen that these readers ranged approximately between 2000-3000 headwords. Besides, only the high-proficiency participants made significant gains in the group. In fact, it is also probable that these high-proficiency participants in the ARR group did not expand their vocabulary by adding several new words to their productive vocabulary knowledge yet started transferring the words which were already in stock (in particular those of high-frequency vocabulary) from receptive to productive use (see Öztürk, 2015). Accordingly, it can be stated that the output activities (i.e., speaking and writing) employed in the ARR group, which can be considered to be conducive to increasing productive knowledge, gave these participants an opportunity to use these words productively— those which they had once stored receptively. Furthermore, the intensive English program they enrolled in (i.e., English Preparatory School) might have given such an opportunity owing to providing additional L2 input and contact with words in L2—an opportunity which only high-proficiency participants in the ARR group could take advantage of.

6.1.3.2.1. Productive vocabulary knowledge and proficiency.

In relation to *research question 1.1.(b),* regarding the effect of proficiency on productive vocabulary knowledge *within* groups, both in the *SSR* and the *TR group*, both low and high-proficiency participants made significant gains, in which the high-proficiency participants made significantly higher gains than the low-proficiency participants in the SSR group (see Table 5.40). This offers, to some extent, empirical evidence for the fact that having a higher proficiency level helped high-proficiency participants make use of pushed output activities more by contributing to their productive vocabulary more than to that of the low-proficiency participants. A somewhat similar finding was found in the *ARR group*: only the high-proficiency participants made statistically significant gains whereas low-proficiency participants, on the other hand, could not make significant gains; rather, they increased their productive vocabulary knowledge slightly (see Table 5.40). However, this finding is not particularly surprising given the fact that the high-proficiency participants had already possessed a larger number of words than the low-proficiency participants before the treatment. Moreover, considering the difference in these two groups of participants' proficiency level, it is very likely that the high-proficiency participants had reached a stage where they were able to transform their receptive vocabulary knowledge into productive vocabulary knowledge. Thus, the high-proficiency participants in the ARR group made significant gains whereas the low-proficiency participants did not.

Overall, when *across*-group differences regarding productive vocabulary are considered taking into the effect of proficiency in relation to *research question 1.2.(b),* whereas the *low-proficiency* participants in the SSR and TR group significantly increased

their productive vocabulary, those in the ARR group could not make significant gains (see Table 5.41). In fact, the low-proficiency participants in the TR group made the highest gains throughout the treatment. Among the *high-proficiency* participants, although all the high-proficiency participants in all the three groups significantly improved their productive vocabulary, those in the SSR group made the highest gains (see Table 5.41). These findings imply that whereas the TR instruction was more effective for low-proficiency participants, the SSR instruction was more effective for high-proficiency participants in terms contributing to their productive vocabulary knowledge. Such a difference can be interpreted by the nature of instruction in each group: Whereas the 6-hours of TR instruction seems to promote the low-proficiency participants' productive vocabulary knowledge with the help of intensive pre and post-reading vocabulary activities, engaging in 3-hours of SSR instruction for a certain period of time regularly and in follow-up non evaluative reading activities (see Appendix A for the details regarding activities) in combination with 3-hours of intensive reading instruction helped the high-proficiency participants to promote their productive vocabulary knowledge other than the two other instructions (i.e., than the ARR or TR instruction).

6.1.3.2.2. Summary of the discussion on productive vocabulary knowledge.

To sum up, that all the three groups had 3-hours of intensive reading activities which involved explicit vocabulary teaching in combination with the remaining 3-hours focusing on reading activities did not help participants make additional gains in

productive vocabulary learning. Indeed, it is most likely that the productive vocabulary of the participants developed via either explicit vocabulary activities or post-reading discussion activities.

6.1.4. Motivation for reading and attitudes toward reading in English.

6.1.4.1. Motivation for reading.

Regarding *research question 1(c)*, findings in relation to reading motivation showed that the SSR and ARR participants decreased their overall reading motivation slightly (and non-significantly) (see Table 5.42): To be more precise, they decreased their extrinsic motivation and increased their intrinsic motivation slightly. Reading graded readers might have helped them perceive this reading activity as a pleasure reading activity, in particular given that they were combined with non-evaluative reading activities. The TR group participants, on the other hand, slightly increased their overall and extrinsic motivation while also decreasing their intrinsic motivation, which is due to the instructional materials (i.e., short unchallenging coursebook texts) they read in the TR treatment.

In line with the slight increases in intrinsic reading motivation, qualitative data showed that the SSR participants were intrinsically motivated. The findings from the reflections, for example, demonstrated that the majority of the SSR group participants were motivated to read more and experienced positive attitudinal changes. After Session 1, one participant in the SSR group stated the following: "*Today we did something amazing. Reading books! I never expected something enjoyable when I first started*

college." (Participant 13, SSR, Reflection, Session 1). The participant continued stating the following: "*Reading Sherlock Holmes in class! What else can be better than that?*" (Participant 13, SSR, Reflection, Session 1). Through the end of the semester, the participants in the SSR group pointed out that they were intrinsically motivated to read more. For example, one participant from the SSR group stated that "*I liked reading thanks to this course. I want to go on reading some books. I have already had some books but I did not want to read them. Thanks to this course, I want to read them now*" (Participant 14, SSR, Reflection, Session 10).

Similarly, qualitative data indicated that ARR group participants were intrinsically motivated to read more and the majority held positive attitudes toward reading in L2. A participant from the ARR group noted the following: "*I don't notice how the time passes in reading sessions. I am thinking about going to the city centre and buying some English novels from a secondhand bookshop*" (Participant 23, ARR, Reflection, Session 3). From the ARR group, another participant similarly stated that "*It is giving me more passion to read more. I will read another book when I arrive home*" (Participant 28, ARR, Reflection, Session 3). Another participant from the same group pointed out the following: "*I try to read some news or magazines except our reading time. Not really much, but I try to read more*" (Participant 19, ARR, Reflection, Session 6). The same participant, in the following week, noted the following: "*Actually I wasn't reading any English book before but I got two books in English from the library. I will start reading them soon, at least I will try. It will be better to read more and more to improve my reading skills*" (Participant 19, ARR, Reflection, Session 7). She, in the following weeks, emphasized the following: "*Everything is super! I started reading*

another book which is Animal Farm by George Orwell. Thank you so much for giving me that habit. I generally read books in Turkish, but I also started reading English books. I read it while also listening to it with its audio" (Participant 19, ARR, Reflection, Session 10). Qualitative data indicated that some participants pointed out negative remarks in relation to the nature of ARR instruction, which suggests that they might have affected their reading motivation. For example, as mentioned earlier, reading the same text three times also had an adverse effect on some of the participants' motivation.

Unlike the SSR and the ARR group, the TR group participants, on the other hand, slightly increased their overall motivation—albeit not significantly—throughout the treatment, according to the quantitative findings. Specifically speaking, they decreased their intrinsic motivation while increasing their extrinsic motivation—neither of which were statistically significant. That is to say, this slight and nonsignificant increase in overall motivation is due to the increase in their extrinsic motivation. Although both quantitative and qualitative data demonstrated that the treatment did not have a considerable effect on their reading motivation, these findings can be explained by the nature of the 6-hour intensive reading instruction they received weekly during the treatment period: The instructional materials and activities involved in intensive reading instruction were not motivating for them, in particular for enhancing their intrinsic motivation. They oftentimes engaged in reading short texts and were not exposed to L2 reading input in different contexts much. Rather, they were occupied with pre and post-reading activities which included listening, speaking, discussion, vocabulary, and grammar activities, which might have been perceived by the participants as external reinforcements for reading (such as a kind of obligation) rather than as pleasurable

reading activities. As indicated by the qualitative data, several participants in the TR group found the instruction rather "boring". Nevertheless, they enjoyed reading about different topics each week (see Chapter IV—Methodology for the topics). For example, one participant stated that "*The topic was actually good. However, I really got bored in the reading part*" (Participant 32, TR, Reflection, Session 5). Still, however, the TR instruction was effective in terms of enhancing extrinsic reading motivation. In fact, although the TR participants did not enjoy the type of instruction they received much, they held positive attitudes toward reading in L2.

The slight and non-significant decrease in the overall reading motivation of the SSR and the ARR participants can be rationalized by the decrease in their extrinsic reading motivation because, on the other hand, they slightly increased their intrinsic motivation as well. This finding can be explained by the classroom environment in the SSR and ARR group: For example, the SSR instruction helped to create a reading community, which reminds us the "community of practice (Lave & Wenger, 1991; Wenger, 1998)" that refers to "[a group of] people who share a concern or a passion for something they do and learn how to do it better as they interact regularly." (Wenger, n.d., p. 1). The reading community the SSR created can also be considered as a social learning environment in the classroom environment (Vygotsky, 1978), and it is considered that reading "in a relaxed, non-judgemental environment within the classroom" (Hsui, 2000, p. 1) helped the SSR and the ARR participants increase their motivation and develop positive attitudes toward reading in L2. Moreover, as the qualitative data indicated, the reading activities they engaged are considered to help intrinsic reading motivation be cultivated. Nevertheless, these changes in reading motivation among the SSR and the

ARR participants were not reflected in statistical results or were statistically significant given the fact that motivation evolves gradually (Dörnyei & Ushioda, 2013). And considering the duration of the treatment—since it was a 10-week-long treatment—I cannot expect the participants to increase their reading motivation significantly, especially for those who had not experienced such different reading instructional programs because regarding motivation for long-term activities (e.g., learning a foreign language), "motivation does not remain constant during the course of months, years, or even during a single lesson. It ebbs and flows in complex ways in response to various internal and external influences" (Dörnyei & Ushioda, 2013, p. 6). Considering that motivation *ebbs and flows*, "Maintaining motivation over long periods of time is complex and influenced by many variables" (Kirchhoff, 2013, p. 208). In sum, this might have resulted from the dynamic nature of motivation. Similarly, Mikami (2017) noted that "participants' motivation was not fixed or stable and that it was difficult for them to maintain positive motivation" (p. 471).

To summarize, despite the positive motivational and attitudinal remarks regarding the SSR and ARR groups, these were not reflected in the statistical results. That is to say, the statistical findings do not corroborate these remarks revealed by the qualitative data, which might also suggest that the questionnaire might have fallen short in revealing these changes in depth.

6.1.4.1.1. Reading motivation and proficiency.

As for the effect of proficiency on *within*-group differences regarding reading motivation in relation to *research question 1.1.(c)*, findings of the SSR, ARR, and TR groups (see Table 5.46) did not reveal statistically significant changes among either high or low-proficiency participants. In the TR group, different than in the SSR and ARR groups, findings indicated that both low and high-proficiency TR participants slightly increased their overall reading motivation whereas the SSR and the ARR group participants slightly decreased their overall reading motivation.

Regarding *across*-group differences in terms of overall reading motivation in relation to *research question 1.2.(c)*, findings indicated that the *low-proficiency* participants in the SSR group made the highest gains during the treatment period, followed by the TR and the ARR group participants respectively, although none of them were statistically significant. Among the *high-proficiency* participants, similarly, there was not a statistically significant difference across the groups regarding their overall reading motivation. Regarding participants' intrinsic and extrinsic reading motivation, the changes were not statistically significant across the SSR, ARR, and the TR treatments, either.

As discussed above, these changes result from the changes in intrinsic and extrinsic motivation.

6.1.4.1.1.1. Intrinsic reading motivation and proficiency.

In terms of intrinsic motivation, the *low-proficiency* participants in all the three treatment groups (i.e., SSR, ARR, and TR) slightly increased their intrinsic motivation from pre to posttest (see Figure 12). This finding suggests that all types of instruction helped low-proficiency participants increase their intrinsic reading motivation. Self-selecting the materials and reading level-appropriate materials (i.e., graded readers) in the SSR group might have promoted the low-proficiency SSR participants' intrinsic motivation. Similarly, the texts in the TR instruction were short and unchallenging texts, which were preceded or followed by explicit reading activities, which might have positively affected the participants' intrinsic reading motivation. And given that the ARR instruction involved repeatedly reading the texts might have promoted low-ARR participants' intrinsic reading motivation. Considering that they did not have comprehension problems due to reading three times, their intrinsic reading motivation increased.

Among the *high-proficiency* participants, on the other hand, the high-proficiency *SSR* and *ARR* participants slightly increased their intrinsic motivation, whereas the high-proficiency TR participants slightly decreased their intrinsic reading motivation (see Figure 12). The high-proficiency TR participants probably found the 6-hour explicit intensive reading instruction a bit boring since what they needed was engaging in more L2 input, where they could put what they had been learning into practice; thus, it is probably the reason why they slightly decreased their intrinsic reading motivation.

6.1.4.1.1.2. Extrinsic reading motivation and proficiency.

Regarding extrinsic motivation, the *low-proficiency* participants in the *SSR* and the *TR* group slightly increased their extrinsic reading motivation (see Figure 12), which suggests that engaging in post-reading activities might have been perceived as external reinforcements by the low-proficiency SSR participants, by also increasing their extrinsic reading motivation. Considering that they were less proficient than those who had high-proficiency and that L2 readers having low language proficiency oftentimes struggle with lower-level reading skills as well as experience fluency problems (Webb & Chang, 2012), engaging in such activities might have promoted their competition feelings and thereby their extrinsic reading motivation. Likewise, most probably, the intensive reading instruction comprising explicit activities given in the TR group increased low-proficiency participants' extrinsic reading motivation. The low-proficiency *ARR* participants, on the other hand, slightly decreased their extrinsic reading motivation (see Figure 12), suggesting that repeatedly reading the text three times helped them quench their concerns regarding reading in L2. This might be the reason why the low-proficiency ARR participants decreased their extrinsic reading motivation.

As for the *high-proficiency* participants, those in the *SSR* and in the *ARR* group decreased their extrinsic reading motivation whereas those in the *TR* group increased it (see Figure 12), all of which were slight and nonsignificant changes. Nevertheless, these slight changes can also be a testament to the effects of these instructions on extrinsic reading motivation: Since the SSR and ARR groups received SSR and ARR instruction where they read graded readers and engaged in enjoyable reading activities, in addition to the 3-hour intensive reading instruction, they decreased their extrinsic reading

motivation. On the other hand, as the TR participants engaged in 6-hours of intensive reading instruction, the texts and the activities included in the instruction might have been perceived as being driven by external factors. That is to say, they read the texts just because the teacher asked it, unlike the SSR participants who self-selected the texts they would read or the ARR participants who read graded readers which were intriguing for them.

All in all, all these findings with respect to the proficiency effect can be interpreted with the type of treatment as well as the materials employed in this study.

6.1.4.2. Attitudes.

Regarding participants' attitudes toward reading in English as well as their attitudes toward the SSR, ARR, and TR instructions, findings in relation to *research question 1(c)* indicated that the SSR participants pointed out several important and effective points about the SSR instruction, toward which they held positive attitudes. Similarly, the ARR participants mostly held positive attitudes toward the treatment, yet they indicated some important points for some modifications regarding the instruction. As to the TR participants, on the other hand, although they did not enjoy the reading instruction much, they held positive attitudes toward reading in L2 and they were motivated to read in L2.

More specifically, the SSR participants reported gaining a reading habit in English, increasing their reading amounts, developing positive attitudes toward reading in English, and perceiving improvements in different areas of English including reading comprehension, silent reading rate, and vocabulary knowledge.

Similarly, the ARR group participants were motivated to read more since they remarked that they started to develop a reading habit in English. Moreover, they also stated that reading activities were pretty motivating for them since the activities were different than intensive reading activities they had been used to. Apart from these, some stated they developed strategies while reading three-times; for example, how to infer the meaning of a word from the context without looking up a dictionary. Most importantly, they pointed out several perceived improvement in different areas of English including reading comprehension, silent reading rate, vocabulary knowledge, listening skills, and in pronunciation. From another perspective, some had less favorable attitudes toward the ARR instruction. For example, some lost their concentration and were unmotivated and bored by rereading the same text (Taguchi et al., 2012) three times although the text was also presented via another modality (i.e., through audio). In relation to the audio, some participants found the narrator's tone of voice and the reading pace rather plain and boring. Apart from these points, the ARR participants held positive attitudes toward the ARR instruction and pointed out several perceived benefits.

On the other hand, the TR instruction —as the qualitative findings indicated— did not have a considerable effect on the TR participants' attitudes toward reading in L2 since they had 6-hours of intensive reading instruction per week. For example, one participant stated the following: "*The thing that we do in the class are classical, and sometimes it could be boring*" (Participant 41, TR, Reflection, Session 2). As can be seen from this reflection, although most TR participants did not enjoy the reading instruction much, they held positive attitudes toward reading in L2 and were motivated to read in L2. Despite finding the reading activities boring, most of them were aware of the benefits

since they perceived some benefits, particularly in their vocabulary knowledge. Moreover, they enjoyed covering different topics: "*We talked about technology today, which is great because I am really into computers, developments, and science, etc. The topic was great and I have learned lots of new words and new uses of the words I already knew, which is great"* (Participant 33, TR, Reflection, Session 8). As seen from this reflection, covering different topics also helped some develop positive attitudes toward the TR instruction.

Taken as a whole, although the TR group participants did not consistently utter positive remarks regarding the 6-hour intensive instruction they received, their reflections of the treatment revealed both positive and negative remarks. Similarly, the ARR participants remarked both positive and negative reflections of the ARR treatment (3-hours of ARR instruction in combination with 3-hours of intensive reading instruction), although they seemed to have comparatively more positive reflections than the TR participants— as the qualitative data indicated. On the other hand, the SSR participants were mostly positive about the instruction they received as they indicated several perceived benefits of the SSR instruction.

6.2. Discussion of Research Question 2

With respect to the second aim of this study, *research question 2* sought for a possible correlation among L2 reading comprehension, silent reading rate, vocabulary knowledge (i.e., receptive and productive vocabulary knowledge), and reading motivation (i.e., intrinsic and extrinsic reading motivation). Findings (see Table 5.47) revealed two significant relations among these variables: there was a positive moderate

significant correlation between receptive and controlled productive vocabulary knowledge ($p < 0.05$) and a positive weak significant correlation between silent reading rate and reading motivation ($p < 0.05$). Except for these, findings did not indicate correlations among other variables.

The positive moderate correlation between receptive and controlled productive vocabulary knowledge ($p < .05$) (see Table 5.47) shows that when receptive vocabulary knowledge increases, productive vocabulary knowledge increases, too. In fact, generally speaking, these two types of vocabulary knowledge are linked with different strands of language; that is to say, whereas receptive knowledge is related to listening and reading skills, productive knowledge is associated with speaking and writing skills (Laufer & Goldstein 2004, as cited in Pignot-Shahov, 2012; Schmitt, 2010). However, as mentioned earlier (see Section 2.2.2.), there is no consensus in the field yet on how these two types of vocabulary (i.e., receptive and productive) develop (Laufer & Goldstein, 2004, as cited in Pignot-Shahov, 2012, p. 38). To be more precise, given the controversy between developmental and the componential approaches (Pignot-Shahov, 2012), whether the development of productive vocabulary depends upon the development of receptive vocabulary (i.e., developmental approach) or whether these two types of vocabulary knowledge are two different components which develop independent of each other (i.e., componential approach) is not certain yet. However, the finding of this study showing that there is a positive moderate correlation seems to confirm, in a way, the componential approach, which suggests that receptive and productive vocabulary are not completely interconnected; rather, they represent two different components and can develop and proceed simultaneously—rather than respectively.

Indeed, this finding showing the relationship between receptive and productive vocabulary is not completely unexpected as the relationship between these two constructs is well-known. As it is generally indicated, “Learners who have a larger receptive vocabulary are likely to know more of those words productively than learners who have a smaller receptive vocabulary” (Webb, 2008, p. 59) although productive vocabulary size is considered to be smaller than receptive vocabulary size (Laufer & Paribakht, 1998; Webb, 2008). Furthermore, as also Zheng (2009) puts forward, “learner’s ability to use words in production develops in accordance with the growth of the number of words he/she can recognize receptively.” (p. 176).

Moreover, the literature documents that as the receptive vocabulary size increases, the gap between the receptive-productive vocabulary narrows down (Zheng, 2009), and findings of this study also indicated that gap between these two facets of vocabulary knowledge was narrow—which also seems to support the componential approach. However, it is worth noting that the relationship between receptive and productive knowledge might vary according to different contexts as well as according to different proficiency levels. That the proficiency level of the participants in this study ranged between intermediate to advanced level shows that they had a certain amount of vocabulary knowledge. Thus, the receptive-productive gap was narrow. Moreover, all participants in all the three treatment groups received 3-hours of intensive reading instruction comprising explicit vocabulary learning activities. In this regard, it is probable that since not all the participants were exposed to abundant L2 input which would promote incidental receptive learning of vocabulary (e.g., the ARR participants), explicit vocabulary activities involved in 3-hours of intensive reading instruction promoted their

productive vocabulary knowledge. That is probably why the receptive-productive gap was narrow in this study.

To summarize, it can be stated that receptive and productive vocabulary knowledge do not always necessarily act and can develop in a complementary way; however, as Webb (2008) puts forward, “receptive vocabulary size might give some indication of productive vocabulary size.” (p. 79), as the findings of the correlational analysis demonstrated. Thus, while interpreting the relationship between these two conceptualizations, it is also worth noting that this receptive-productive relationship might show a variation in different foreign language learning contexts. As Zheng (2009) puts forward, for example, “the quantity and quality of the L2 input and the specific vocabulary teaching approach featuring the given context” (p. 163) might determine this relationship. Thus, given the divergence of vocabulary scores in this study—both receptive and productive—obtained from a small sample size, these findings reflect the characteristics of this context where this study was conducted and this complex relationship should be explored more in depth in other EFL contexts as well.

Moreover, the finding which indicated a weak positive correlation between silent reading rate and overall reading motivation ($p < .05$) (see Table 5.47) implies that as the reading motivation increases, the silent reading rate increases as well. Along the same line, it can also be considered that as the silent reading rate increases, the reading motivation increases, too. This finding can be interpreted by Nuttall’s (1982, 1987, 1996) *vicious* and *victorious* cycles of weak and good readers. According to the victorious cycle of a good reader, reading faster results in reading more and understanding better, which—in turn—increases enjoyment in reading. Thus, readers enjoying reading become more

motivated to read and they read faster. Similarly, readers who are in a vicious circle are generally slow readers due to not reading or enjoying reading much. As it was indicated, "readers who read in a slow, laborious manner can have reduced motivation to read as a result of the large effort needed to extract meaning from text." (Beglar et al., 2012, p. 2). Thus, there is a positive relationship between reading motivation and silent reading rate, which was indicated by the findings of this study as well.

However, findings of this study also indicated that rather than intrinsic reading motivation, extrinsic reading motivation correlates with silent reading rate ($p < .05$) (see Table 5.47). More specifically, among the dimensions of extrinsic reading motivation, silent reading rate correlated with the dimensions of recognition ($p < .01$) and competition ($p < .05$). This implies that as the learners' extrinsic motivation increases, their silent reading rate increases as well. More specifically, it can also be suggested that learners who would like to be recognized and those who are competitive in their nature tend to read at faster rates.

Although not significantly, findings also indicated a positive yet weak correlation between vocabulary knowledge (both receptive and productive vocabulary knowledge) and L2 reading comprehension. That is to say, there was a tendency for the relationship between vocabulary and L2 reading comprehension. Nevertheless, although both correlations were weak (and non-significant), the degree of correlation between productive vocabulary knowledge and L2 reading comprehension ($r = .254$, $p = .109$) was slightly higher when compared to that between receptive vocabulary knowledge and L2 reading comprehension ($r = .188$, $p = .238$). This finding can be interpreted in a way

that rather than receptive vocabulary, productive vocabulary has a stronger relationship with L2 reading comprehension.

Another non-significant correlation was found between L2 reading comprehension and motivation ($p > .05$). The correlational analysis indicated a weak negative correlation between L2 reading comprehension and reading motivation (with both intrinsic and extrinsic reading motivation). This finding can be explained by the nature of the reading comprehension test: Apart from the multiple-choice question types, as the comprehension test comprised open-ended questions, the performance of the participants might have been a bit lower than their actual performance also considering the procedure they took the test. They were not allowed to go back to the text while answering the questions. Thus, this might be one explanation. Another interpretation might concern the motivation for reading questionnaire which might have fallen short in revealing the participants' motivation levels.

6.3. Discussion of Research Question 3

Regarding *research question 3* asking what the predictors of L2 reading comprehension are, findings of the multiple regression analysis showed that silent reading rate and intrinsic reading motivation significantly predicted L2 reading comprehension ($p < 0.05$) whereas receptive, productive vocabulary knowledge, extrinsic reading motivation, and language proficiency did not ($p > 0.05$).

The fact that silent reading rate is a predictor of L2 reading comprehension can be explained by the Automaticity Theory (LaBerge & Samuels, 1974), which posits that slow readers focus more on lower level skills, which puts a burden on the short term

memory. Therefore, cognitive resources are spent for word recognition rather than comprehending the text; i.e., less-developed word recognition skills might lead to slower reading performance (Taguchi & Gorsuch, 2002). As postulated by the Automaticity Theory, when reading processes at the accuracy level are automatized, the readers can focus their cognitive efforts on higher-order skills such as comprehending the text. Similarly, Koda (1997) indicates that "inefficient orthographic processing can lead not only to inaccurate lexical retrieval, but to poor comprehension as well" (Koda, 1997, p. 35, as cited in Schmitt, 2010, p. 25). Thus, lack of fluency is generally associated with poor comprehension and reading skills. If a learner reads slowly, it might mean that s/he has problems in word-recognition skills and therefore cannot effectively implement top-down processing skills for comprehension. In accordance with the Verbal Efficiency Model (Perfetti, 1985), "readers who lack efficient word identification procedures are at risk for comprehension failure." (Perfetti, 2001, p. 12802). And, he adds, "Readers who fail to read words accurately fail to comprehend." (p. 12801). Therefore, the problems encountered in bottom-up (lower-level) processing interfere with the effective implementation of top-down (higher-level) processing skills, thereby affecting readers' comprehension processes. Thus, automatic and fluent reading skills predict reading comprehension.

Moreover, findings indicated that another significant predictor of L2 reading comprehension is intrinsic motivation for reading. This finding is not that surprising given the fact that intrinsic reading motivation has a direct effect on the reading amount. That is to say, since motivation "is what activates behavior" (Guthrie & Wigfield, 2009, p. 406), intrinsically motivated readers read more, and in line with the reading amount,

their reading behaviours change, too. In other words, actual reading behaviors (i.e., reading amount) are considered to promote L2 reading development as reading more results in improvements in reading competence and abilities. Moreover, positive motivation—especially intrinsic motivation—enhances L2 reading development and abilities in turn, and facilitates reading comprehension (Grabe, 2009; Wang & Guthrie, 2004). Indeed, this finding can also be construed by Nuttall's (1996, pp. 167-168) *victorious* and *vicious* cycles of reading. Accordingly, she states that motivation affects the reading amount. Thus, learners who do not enjoy reading do not read much and thus do not understand much (and they enter the *vicious* circle). On the other hand, learners who read more understand more, and therefore enjoy reading (enter the *victorious* circle). Enjoying or not enjoying reading, therefore, exerts an impact on learners' motivation, in particular, on their intrinsic reading motivation.

On the other hand, the data generated by this study showed that L2 reading comprehension is not predicted by receptive or productive vocabulary knowledge. However, this finding is not generalizable to the other contexts considering the small sample size in this study. This finding also results from the nature of the reading comprehension test employed in this study. Given that it included multiple-choice and open-ended items, this kind of test might have caused L2 reading comprehension not to be predicted by vocabulary knowledge, which exemplifies the potentially misleading effects of the tests employed. Also, findings should also be interpreted by considering the nature of the receptive and productive vocabulary tests. Since they were generalized vocabulary tests, the vocabulary items did not necessarily include the vocabulary items in the reading texts. Moreover, this study was based on a small sample size, which should

also be taken into consideration while interpreting the findings. In other words, these findings should not be interpreted as belittling the importance of vocabulary knowledge in L2 reading comprehension. Moreover, in relation to the findings of research question 2, findings—as discussed earlier—indicated a tendency towards a positive correlation between L2 reading comprehension and vocabulary knowledge (with both receptive and productive vocabulary knowledge).

Furthermore, the finding that L2 reading comprehension is not predicted by L2 language proficiency might be the result of the small size of the participants who varied in terms of their language proficiency levels. In fact, although their proficiencies varied, they were divided into as low-proficiency and high-proficiency participants. This is most probably the reason why L2 language proficiency did not predict L2 reading comprehension in this study.

To put it in a nutshell, findings of the multiple regression analysis indicated that nearly half of the variance in L2 reading comprehension (43 per cent of it) can be explained by silent reading rate and intrinsic reading motivation. This implies that more than half of L2 reading comprehension (i.e., 57 per cent) might be predicted by other factors that were not investigated in this study.

6.4. Chapter Summary

All in all, this chapter shed light on the findings of this study by discussing and interpreting them in detail. The next chapter concludes the study by also providing some implications and presents a thorough discussion of the limitations and suggestions for further studies.

CHAPTER VII

CONCLUSION

7.0. Introduction

This chapter gives an overall conclusion to the study by initially summarizing the findings, which are reviewed with respect to the research questions. The chapter then focuses on whether the findings of the study concur with or contradict the previously-conducted studies in the field, followed by the implications of the findings, limitations of the study, and suggestions for future studies.

7.1. Conclusion

This quasi-experimental study, which employed a pretest-posttest design and a mixed-methods approach, was designed to experiment the effects of Sustained Silent Reading (SSR), Assisted Repeated Reading (ARR), and Traditional Reading (TR) instructions on reading comprehension and silent reading rate, vocabulary knowledge, and on individual factors (i.e., reading motivation and attitudes toward reading) as well as to investigate whether these effects would vary *within* and *across* the treatment groups according to different proficiency levels (i.e., low and high proficiency participants).

Moreover, the relationship among these variables and the predictors of L2 reading comprehension were examined in the light of the aims of this study.

7.1.1. Research Question 1.

Regarding *research questions 1(a), 1.1.(a) and 1.2.(a)*, namely if there is an effect of SSR, ARR, and TR instructions on L2 reading comprehension and whether their reading comprehension performance differs *within* and *across* treatment groups in terms of different language proficiencies, findings of the reading comprehension test revealed that both low and high-proficiency SSR participants significantly improved their L2 reading comprehension after the treatment. Qualitative data from weekly reflections and semi-structured interviews were also in line with the quantitative findings. These findings overall corroborate the findings of previous empirical studies that investigated the role that SSR plays in developing reading comprehension of EFL learners (e.g., Masoumi & Sadeghoghli, 2017; Matsui & Noro, 2010; Sims, 1996, Suk, 2016).

Findings with respect to the ARR instruction, on the other hand, indicated that the ARR participants (low and high-proficiency participants combined) made a very slight increase in L2 reading comprehension. Moreover, the low-proficiency ARR participants slightly increased their comprehension whereas the high-proficiency participants showed a tendency for decrease. The qualitative data similarly indicated that only some ARR participants felt that they improved in reading comprehension skills whereas some others did not. However, findings, in general, confirm those of some ARR studies (e.g., Taguchi & Gorsuch, 2002; Taguchi et al., 2004) in terms of not revealing any significant difference in reading comprehension of the ARR instruction.

The TR instruction, similarly, did not result in any gains for the L2 reading comprehension of the participants in the group; in fact, neither low nor high-proficiency participants made any improvement in their reading comprehension. This finding concurs with a previously-conducted study (e.g., Suk, 2016) in which no or little gains in comprehension were reported for the traditional (or intensive) reading instruction.

Moreover, findings of *research question 1(a), 1.1.(a), and 1.2.(a)* investigating if there is an effect of three types of treatment on silent reading rate and if their performance varies according to different language proficiencies *within* and *across* groups indicated that the SSR and ARR participants (both low and high-proficiency participants in both groups) significantly decreased their silent reading rate for the reasons stated in the discussion section (see Chapter VI- Discussion) indicating a tradeoff between comprehension and rate, which was similarly reported in several other studies (e.g., Chang & Millett, 2013; Cushing-Weigle & Jensen, 1996; Karlin & Romanko, 2010; Matsui & Noro, 2010). Qualitative data also corroborate these findings. On the other hand, the participants in the TR group slightly increased their reading rate. Regarding the effect of proficiency, both low and high-proficiency participants in the TR group slightly improved their reading rate, although not significantly. However, the TR instruction provided more benefits for the silent reading rate of the high-proficiency participants.

Regarding the *research question 1(b), 1.1.(b), and 1.2.(b)*, namely whether there is an effect of SSR, ARR, and TR on vocabulary knowledge and if their effects vary according to different proficiency levels *within* and *across* groups, findings demonstrated that both the TR and the SSR instructions significantly contributed to both receptive and productive vocabulary knowledge of the participants (low and high-proficiency

participants combined). However, although both low and high-proficiency participants in the TR group benefited from the treatment significantly, only the high-proficiency participants in the SSR group significantly benefited from the SSR instruction regarding their vocabulary knowledge. In other words, low-proficiency SSR participants did not benefit from the instruction in terms of receptive vocabulary knowledge.

To put it succinctly, with respect to the effect of proficiency, whereas the SSR instruction seems to be more effective for higher-proficiency participants' vocabulary knowledge, the TR instruction seems to be more effective for lower-proficiency participants' vocabulary knowledge overall, which concurs with a study in the field (e.g., Park, Isaacs, & Woodfield, 2018).

The finding regarding the positive effects of SSR instruction on vocabulary knowledge of SSR group as a whole corroborates the findings of earlier studies (e.g., Day, Omura, & Hiramatsu, 1991; Hsu & Lee, 2009; Lee, 2005, 2006).

As for the effects of the ARR instruction, the findings indicated either overall or in terms of low and high proficiency-levels, and the ARR group (neither low nor high-proficiency) participants did not show any improvement in their receptive vocabulary knowledge. However, high-proficiency participants improved their productive vocabulary knowledge. This concurs earlier studies wherein it was reported that productive vocabulary improved more than learners' receptive vocabulary (e.g., Danilović & Grujić, 2014; Hajiyeva, 2015; Öztürk, 2015; Zheng, 2009). In Hajiyeva's (2015) study, for example, although learners' receptive vocabulary knowledge did not increase in size, they increased their productive vocabulary knowledge by 21 per cent.

Likewise, Danilović and Grujić (2014) reported a 14% growth in productive vocabulary size while also reporting an 8% growth in receptive vocabulary size.

Findings of the TR instruction also support the findings of past empirical data showing the effectiveness of intensive reading instruction on vocabulary knowledge (e.g., Al-Homoud & Schmitt, 2009).

Regarding *research question 1(c), 1.1.(c),* and *1.2.(c),* namely if there is an effect of SSR, ARR, and TR on L2 reading motivation and attitudes toward reading in L2 and whether these results vary according to different language proficiencies *within* and *across* groups, the quantitative data indicated that both low and high-proficiency SSR and ARR participants made slight increases in their intrinsic reading motivation. Regarding their extrinsic motivation, the high-proficiency participants in the SSR and ARR groups and low-proficiency ARR participants slightly decreased their extrinsic motivation. However, low-proficiency SSR participants increased their extrinsic motivation. On the other hand, the TR instruction slightly caused both low and high-proficiency participants' intrinsic motivation to decrease while slightly increasing their extrinsic motivation. However, the qualitative data indicated that the participants in the SSR and ARR group experienced several positive motivational and attitudinal changes although these changes were not reflected in statistical findings. The qualitative data concerning these positive motivational and attitudinal changes support the previously-conducted SSR (e.g., Hwang, 2018; Lin et al., 2012; Matsui & Noro, 2010; Sakurai, 2014; Suk, 2015) and ARR (e.g., Gorsuch & Taguchi, 2010) studies.

And in relation to the participants' attitudes toward SSR, ARR, and TR instructions, findings showed that the SSR and ARR participants revealed positive

attitudes toward the instruction they received, which is congruent with what was documented in the literature. Participants made positive comments in relation to these instructions, which concur with the findings in the field as discussed below:

Specifically speaking, the SSR instruction helped participants establish a reading habit in English, which is in accord with the earlier studies (e.g., Chua, 2008; Wiesendanger & Bader, 1989). In line with this finding, the SSR instruction also enabled participants to read more by creating a classroom atmosphere conducive to reading. Thus, their reading enjoyment, reading frequency, and reading amount increased by helping them become eager readers, which corroborate the findings of earlier EFL studies (e.g., Pilgreen & Krashen, 1993; Mason & Krashen, 1997; Mermelstein, 2014). Moreover, the SSR participants held positive attitudes toward reading in L2, a finding revealed by past studies as well (e.g., Atay, 2004).

Similar to the SSR participants, what the ARR participants most liked about the treatment was reading activities. The activities not only helped them provide meaningful reading opportunities but also helped them recycle vocabulary they learn from the readers. As for the ARR instruction, moreover, findings indicated it helped participants form a reading habit (e.g., Gorsuch & Taguchi, 2010). Providing audio-support made the sessions more enjoyable, yet reading the same text three times sometimes demotivated some students and generated discomfort, which was also reported in the earlier studies (e.g., Chang & Millett, 2013; Taguchi et al., 2004, 2012, 2016).

7.1.2. Research Question 2.

In relation to *research question 2*, the potential relationship among L2 reading comprehension, silent reading rate, receptive and productive vocabulary knowledge, and reading motivation was explored. Findings indicated three significant correlations: (1) receptive vocabulary knowledge positively correlated with productive vocabulary knowledge significantly at a moderate level, which implies that they have a bidirectional—rather than a sequentially-ordered—relationship. Findings also indicated (2) a positive weak correlation between silent reading rate and reading motivation. More specifically, (3) there was a weak positive correlation between silent reading rate and extrinsic reading motivation.

The finding indicating the positive relationship between receptive and productive vocabulary knowledge ($p < .05$) concurs with the findings of other studies in the field (e.g., Danilović & Grujić, 2014; Martinez-Adrian & Gallardo del Puerto, 2010; Sakai, 2009; Yamamoto, 2011; Zheng, 2009; Zhong, 2018) which also revealed a relationship between receptive and productive vocabulary knowledge.

Moreover, the positive relationship ($p < .05$) between silent reading rate and overall reading motivation seems to be in line with the literature (e.g., Beglar et al., 2012; Grabe, 2009; Nuttall, 1982, 1987, 1996; Taguchi et al., 2004).

Apart from these, although no other significant correlations were found between the variables, the tendencies were as follow: (4) A very weak negative correlation between reading comprehension and silent reading rate was found. Moreover, (5) the relationship between receptive vocabulary and reading comprehension was very weak and positive whereas the relationship between productive vocabulary and reading

comprehension was weak and positive. (6) Another weak negative non-significant correlation was found between reading motivation and comprehension.

7.1.3. Research Question 3.

Regarding *research question 3*, namely what the predictors of L2 reading comprehension are, findings indicated that silent reading rate and intrinsic reading motivation significantly predicted L2 reading comprehension. Findings also indicated vocabulary knowledge (neither receptive nor productive) did not predict L2 reading comprehension, which does not concur with the previously-conducted studies (e.g., Jeon & Yamashita, 2014; Laufer, 1992; Yamashita, 1999) for reasons stated previously in the discussion part. Findings of this study also indicated that L2 proficiency did not significantly predict L2 reading comprehension due to the reasons discussed earlier (see Chapter VI-Discussion), which do not corroborate with some studies in the literature (e.g., Grabe & Jiang, 2018; Jiang, 2011; Yamashita, 2002).

When the regression findings for L2 reading comprehension are examined, these findings are consistent with the L2 studies wherein silent reading rate predicted reading comprehension (e.g., Kim & Wagner, & Foster, 2011). Reading motivation is also another predictor of L2 reading comprehension. To the best of the researcher's knowledge, however, there are not any studies which directly investigated the predictive power of motivation on L2 reading comprehension. However, the arguments of some researchers in the field pointing out that reading motivation (intrinsic reading motivation, in particular) strongly predicts the reading amount (Krashen, 2007; Takase, 2007; Wang & Guthrie, 2004) concur with the findings of this study.

7.2. Implications

There are several implications of this study for classroom pedagogy:

Since, as the findings of this study indicated, none of the three treatments focused in this study (i.e., SSR, ARR, and TR) did not by themselves improve all the components of L2 reading comprehension, “hybrid” reading programs in university-level EFL contexts should be prepared according to the needs of different proficiency-level students.

For lower-proficiency learners, reading programs should focus more on traditional reading and assisted repeated reading instruction until they reach a certain level of language threshold. Within this framework, intensive and repeated reading instruction with shorter reading texts could help low-proficiency learners raise their awareness of the target language structure, vocabulary, and comprehension skills through explicit and repeated practice. Moreover, ARR which focuses on the repeated reading of the same text can also promote lower proficiency learners’ self-confidence and motivation.

High-proficiency participants, on the other hand, could be provided with more meaningful reading opportunities (Grabe, 2009; Grabe & Stoller, 2011) than the traditional reading classes could provide. In other words, L2 reading classes for higher proficiency students should be supported with and include large amounts of L2 reading materials appropriate to their proficiency level with a variety of topics and genres (Eskey, 2002).

However, teachers should specifically make sure that learners read books within their linguistic competence because otherwise, reading materials inappropriate for the target proficiency level might backlash the positive effects of the reading instruction

provided for the learners as well their reading motivation. Moreover, learners should be given a sufficient amount of time for reading in the classroom.

In input-rich EFL reading classes engaging students in SSR, vocabulary enhancement activities focusing on explicit instruction and productive vocabulary activities should accompany the reading activity. Reading instruction—when supported with vocabulary enhancement or output-oriented activities—can provide effective results even in a short period of time.

Vocabulary enhancement activities could accompany input-rich alternative reading instructions: The learners should also pay some sort of conscious effort to reinforce the relationship between receptive and productive vocabulary knowledge (Yamamoto, 2011) as explicit intensive vocabulary instruction provides several benefits, especially for low-proficiency learners. Although it is known that reading contributes to incidental vocabulary acquisition, vocabulary size can be developed through such vocabulary enhancement activities integrated into reading instructional programs. In fact, for enhancing vocabulary, explicit vocabulary instruction (such as in intensive reading instruction) could promote more gains, especially for lower-proficiency learners.

On the other hand, integrating reading activities (such as group discussion, et cetera) rather than making them write cliché book summaries or than stressing them out with tests on the books they read, might create an opportunity for a more enjoyable and beneficial classroom environment by also providing a chance for the instructors to check their reading and comprehension.

To summarize, from a broader perspective, all the stakeholders—not only teachers, but also school administrators, curriculum designers, and policymakers—need

to understand both the short-term and long-term effects of incorporating input-rich alternative reading implementations into traditional English classes. Especially in the Turkish EFL context including the K-12 and university education, blind obedience to the traditional reading classes and the Grammar Translation Method should be relinquished at least for the sake of evoking interest in L2 reading since it is clearly indicated that reading approaches such as SSR when combined with intensive reading instruction might help develop positive attitudes toward L2 reading, which in turn would affect reading amount and competence. Alternative reading instructions such as sustained silent reading should not be considered and implemented as spur-of-the-moment activities, yet as a way to create lifelong learners (Gardiner, 2005). Therefore, the design example of such a reading instruction might be useful for the other teachers in the field, especially for those who work in university settings. The instructional techniques used in this study are also considered to be applicable to the regular EFL/ESL reading curricula including K-12 and university settings.

However, there is an evident gap and a great need for consistency, specificity, and uniformity regarding the instructional policies for sustained silent reading implementations since there is such a variety of discrepancies. If possible, these implementations—at least to some extent—should have a common ground if not consistent across the teachers, syllabi, institutions, and the national L2 reading curriculum since implementing different approaches to teaching L2 reading might consequently hamper the adoption of necessary foreign language and literacy competencies. Although a one-size-fits-all approach cannot or should not be prescribed for the implementation of

such reading approaches, such a need for consistency, specificity, and uniformity across L2 reading instruction is perpetual.

7.3. Limitations of the Study

The findings and the insights provided by this study should be considered suggestive rather than definitive and be taken into account by conceiving its limitations which are presented as follow:

First, this study was conducted in an EFL context with Turkish university-level students from the English Preparatory School of a state university in Turkey. Thus, due to the limited external validity of this study, the generalization of the results to other EFL contexts or to other groups of EFL learners (e.g., to high-school EFL learners) should be done cautiously.

Moreover, each treatment group comprised a small sample size of participants, which presents another limitation.

Furthermore, using a quasi-experimental research design and using convenience sampling also present some limitations affecting the generalizability of this study.

Researcher bias might be considered another limitation. Given that the researcher herself taught the *Reading Skills* course that served as the treatment of this study, the participants might have written their reflections and responded to the questions in the interviews favorably despite the fact that the researcher informed the participants this study would not affect their course grades.

Still another limitation of this study is that apart from the 6 hours of *Reading Skills* course serving as the treatment of this study, the participants were given 18 more

hours of listening, speaking, and writing skills (6 hours each) by different instructors in the English Preparatory Program, which could be a confounding factor.

Moreover, the fact that low and high-proficiency participants had to be in the same section of the language skills courses according to the regulations of the English Preparatory School of the Department could have possibly affected the results.

Furthermore, the fact that although the participants were assigned graded readers suitable to their proficiency level they were permitted to self-select materials that did not necessarily suit their proficiency levels could have affected the results.

Another limitation concerns the general vocabulary tests which were used for measuring the receptive and productive vocabulary knowledge since these tests might have failed to represent the words learned from the materials employed in the treatment groups. However, as the participants in three different experimental groups read several different materials and since which books the participants would read had not previously been known prior to the treatment (particularly in the SSR group), measuring their vocabulary knowledge through general vocabulary tests was more meaningful.

Finally, the nature of the test for measuring productive vocabulary knowledge can be another limitation given that it was a controlled completion test which requires the test takers to (1) first read and comprehend the sentence, and after its comprehension and getting the clue, (2) to fill in the specific target word.

7.4. Suggestions for Further Studies

This study has several suggestions for further studies:

First, future studies should be conducted with larger sample sizes by comparing the relative effects of various EFL reading instructions with an in-depth focus on factors such as learners' proficiency levels, reading habits, reading experience (Beglar et al., 2012), and learning styles (Oxford, 2003). Moreover, rather than using convenience sampling, quasi or pre-experimental research designs adopting random sampling procedure might provide more reliable data for future studies.

Such studies could also investigate the long-term gains of different reading instructions such as SSR and ARR (i.e., they should collect retention data), using a variety of measurement and evaluation techniques such as some simple yes/no comprehension questions, or text recall protocols instead of comprehension questions (Bernhardt, 2010), focusing on measuring both depth and breadth of productive vocabulary knowledge. For studies attempting to measure productive vocabulary knowledge, free productive vocabulary knowledge should also be measured to describe how well a learner knows a particular word productively. Besides, for full comparability, learners' mastery of vocabulary could be measured on the same vocabulary items both receptively and productively.

Moreover, studies could focus on an in-depth investigation of the effects of "hybrid" L2 reading classes on learners' L2 reading competence and abilities.

In addition, an important future line of investigation could be to explore the effects of time distribution (see Serrano & Huang, 2018 for more details). That is to say, the effect of the Goldilocks principle should be investigated— a principle which refers to

the case that there is an optimum situation falling within a certain framework—rather than having extremes such as “too much”, “very few”. Given that there is no agreement upon the optimum amount or the frequency of reading, another important area of future research would be to investigate whether intensive reading instruction with short time intersession intervals or shorter periods of instruction with long time intersession intervals contributes to reading competence and L2 learning more.

Last but not least, exploring the predictors of L2 reading comprehension across different levels might be another important line of investigation for future researchers. More specifically, future studies can elucidate the interrelationship and the predictive power of different variables that might predict L2 reading comprehension among participants with varying degrees of L2 proficiency levels (for example, beginner, low-intermediate, intermediate, upper-intermediate, and advanced levels).

REFERENCES

Al-Homoud, F., & Schmitt, N. (2009). Extensive reading in a challenging environment: A comparison of extensive and intensive reading approaches in Saudi Arabia. *Language Teaching Research*, *13*(4), 383-401.

Alderson, J. C., & Urquhart, A. H. (1985). This test is unfair: I'm not an economist. In P. Haupman, R. LeBlanc, & M. B. Wesche (Eds.), *Second language performance testing* (pp. 25-44). Ottawa: University of Ottawa Press.

Anderson, N. J. (2018). Silent reading fluency. *The TESOL Encyclopedia of English Language Teaching*, 1-10. doi: 10.1002/9781118784235.eelt0464

Atay, D. (2004). The effects of extensive reading on the attitudes of Turkish EFL learners toward L2 reading. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, *19*, 17-26.

Bachman, L. F. (2004). *Statistical analyses for language assessment book*. Cambridge: Cambridge University Press.

Baker, L., & Wigfield, A. (1999). Dimensions of children's motivation for reading and their relations to reading activity and reading achievement. *Reading Research Quarterly*, *34*(4), 452-477.

Bamford, J., & Day, R. R. (1997). Extensive reading: What is it? Why bother?. *Language Teacher Kyoto JALT*, *21*(5), 1-6.

Bamford, J., & Day, R. (2004). *Extensive reading activities for language teaching*. New York, NY: Cambridge University Press.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191-215.

Beglar, D., Hunt, A., & Kite, Y. (2012). The effect of pleasure reading on Japanese university EFL learners' reading rates. *Language Learning*, *62*(3), 665–703.

Beglar, D., & Hunt, A. (2014). Pleasure reading and reading rate gains. *Reading in a Foreign Language*, *26*(1), 29–48.

Bernhardt, E. B. (1991). *Reading development in a second language: Theoretical, empirical, and classroom perspectives.* Norwood, NJ: Ablex.

Bernhardt, E. B. (2010). *Understanding advanced second-language reading*. New York, NY: Routledge.

Bernhardt, E. B., & Kamil, M. L. (1995). Interpreting relationships between L1 and L2 reading: Consolidating the Linguistic Threshold and the Linguistic Interdependence Hypotheses. *Applied Linguistics, 16*(1), 15–34.

Blum, I. H., Koskinen, P. S., Tennant, N., Parker, E. M., Straub, M., & Curry, C. (1995). Using audiotaped books to extend classroom literacy instruction into the homes of second-language learners. *Journal of Reading Behavior*, *27*(4), 535-563.

Campbell, D. T., & Stanley, J. C. (2015). *Experimental and quasi-experimental designs for research*. San Francisco, CA: Ravenio Books.

Carrell, P. L. (1987). Readability in ESL. *Reading in a Foreign Language 4*(1), 21-40.

Carrell, P. L. (1991). Second language reading: Reading ability or language proficiency? *Applied Linguistics, 12*, 159–179.

Carrell, J., Devine, D., & Eskey, E. (1988). *Interactive approaches to second language reading*. New York, NY: Cambridge University Press.

Carver, R. P. (1990). *Reading rate: A review of research and theory*. San Diego: Academic Press.

Carver, R. P. (2000). *The causes of high and low reading achievement*. Mahwah, NJ: Lawrence Erlbaum Associates.

Chang, A. C. S. (2009). Gains to L2 listeners from reading while listening vs. listening only in comprehending short stories. *System*, *37*(4), 652-663.

Chang, A. (2010). The effect of a timed reading activity on EFL learners: Speed, comprehension, and perceptions. *Reading in a Foreign Language, 22*(2), 284-303.

Chang, A., & Millett, S. (2013). Improving reading rates and comprehension through timed repeated reading. *Reading in a Foreign Language*, *25*(2), 126–148.

Cho, K. S., & Krashen, S. (2001). Sustained silent reading experiences among Korean teachers of English as a foreign language: The effect of a single exposure to interesting, comprehensible reading. *Reading Improvement*, *38*(4), 170-175.

Chow, P., & Chou, C. (2000). Evaluating sustained silent reading in reading classes. *The Internet TESL Journal*, *6*(11). Retrieved March 10, 2019 from http://iteslj.org/Articles/Chow-SSR.html

Chua, S. P. (2008). The effects of the sustained silent reading program on cultivating students' habits and attitudes in reading books for leisure. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 81*(4), 180-184.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Coltheart, M. (2005). Modeling reading: The Dual-Route Approach. In M. J. Snowling, & C. Hulme (Eds). *The science of reading: A handbook* (pp. 6-23). Oxford: Blackwell Publishing.

Council of Europe (2001). *Common European Framework of Reference for Languages: Learning, teaching, assessment*. Cambridge: Cambridge University Press.

Cox, K. E., & Guthrie, J. T. (2001). Motivational and cognitive contributions to students‘ amount of reading. *Contemporary Educational Psychology, 26*(1), 116-131.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed method approaches* (4th ed.). Thousand Oaks, CA: Sage Publications, Inc.

Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications, Inc.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York, NY: Harper Perennial.

Cushing-Weigle, S., & Jensen, L. (1996). Reading rate improvement in university ESL classes. *CATESOL Journal, 9*, 55–71.

Danilović, J. R., & Grujić, T. S. (2014). Vocabulary growth at tertiary level: How much progress can Serbian EFL learners make in a year?. *Zbornik Instituta za pedagoska istrazivanja, 46*(1), 200-218.

Day, R., & Bamford, J. (2002). Top ten principles for teaching extensive reading. *Reading in a Foreign Language, 14*(2), 136–141.

Day, R. R., & Bamford, J. (2010). *Extensive reading in the second language classroom*. Cambridge: Cambridge University Press.

Day, R., Omura, C., & Hiramatsu, M. (1991). Incidental vocabulary learning and reading. *Reading in a Foreign Language, 7*(2), 541-551.

Dowhower, S. L. (1987). Effects of repeated reading on second-grade transitional readers' fluency and comprehension. *Reading Research Quarterly*, *22*(4), 389-406.

Dörnyei, Z. (2007). *Research methods in applied linguistics*: Quantitative, qualitative, and mixed methodologies. Oxford: Oxford University Press.

Dörnyei, Z., & Ushioda, E. (2013). *Teaching and researching motivation* (2nd ed.). Oxon: Routledge.

Dwyer, E. J., & Reed, V. (1989). Effects of sustained silent reading on attitudes toward reading. *Reading Horizons*, *29*(4), 283-293.

Dwyer, E. J., & West, R. F. (1994). Effects of sustained silent reading on reading rate among college students. (ERIC document: ED 382924).

Elley, W. B. (1991). Acquiring literacy in a second language: The effect of book-based programs. *Language Learning, 41*(3), 375-411.

Elley, W. B., & Mangubhai, F. (1981a). *The impact of a book flood in Fiji primary schools*. Wellington: New Zealand Council for Educational Research.

Elley, W. B., & Mangubhai, F. (1981b). The long-term effects of a book flood on children's language growth. *Directions*, *7*, 15-24.

Elley, W. B., & Mangubhai, F. (1983). The impact of reading on second language learning. *Reading Research Quarterly*, *19*(1), 53-67.

Eskey, D. E. (2002). Reading and the teaching of L2 reading. *TESOL Journal*, *11*(1), 5-9.

Eskey, D. E. (2005). Reading in a second language. In E. Hinkel (Ed.). *Handbook of research in second language teaching and learning* (pp. 563-580). Mahwah, NJ: Erlbaum.

Fishbein, M., & Ajzen, I. (2015). *Predicting and changing behavior: The reasoned action approach.* New York, NY: Routledge.

Fraser, C. A. (2007). Reading rate in L1 Mandarin Chinese and L2 English across five reading tasks. *The Modern Language Journal*, *91*(3), 372-394.

Fujita, K., & Noro, T. (2009). The effects of 10-minute extensive reading on the reading speed, comprehension and motivation of Japanese high school EFL learners. *ARELE: Annual Review of English Language Education in Japan*, *20*, 21-30.

Gardner, R. C. (2001). Integrative motivation and second language acquisition. In Z. Dörnyei, & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 1-19). Hawaii: University of Hawaii Press.

Gardner, R. C., & Lambert, W. E. (1959). Motivational variables in second-language acquisition. *Canadian Journal of Psychology/Revue Canadienne de Psychologie*, *13*(4), 266-272.

Gardner, R. C., & Lambert, W. E. (1972). *Attitudes and motivation in second language learning*. Rowley, MA Newbury House Publishers.

Gardiner, S. (2005). *Building student literacy through sustained silent reading*. Virginia, VA: ASCD.

Gorsuch, G., & Taguchi, E. (2008). Repeated reading for developing reading fluency and reading comprehension: The case of EFL learners in Vietnam. *System*, *36*(2), 253-278.

Gorsuch, G., & Taguchi, E. (2010). Developing reading fluency and comprehension using repeated reading: Evidence from longitudinal student reports. *Language Teaching Research*, *14*(1), 27-59.

Grabe, W. (1991). Current developments in second language reading research. *TESOL Quarterly*, *25*(3), 375-406.

Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. Cambridge: Cambridge University Press.

Grabe, W., & Jiang, X. (2018). First Language and Second Language Reading. *The TESOL Encyclopedia of English Language Teaching*, 1-7.

Grabe, W., & Stoller, F. L. (2011). *Teaching and researching reading* (2nd ed.). Harlow, England: Pearson Education.

Gray, H. L. (2012). *The effects of Sustained Silent Reading on reading achievement and reading attitudes of fourth grade students* (Unpublished doctoral thesis). The University of North Carolina at Chapel Hill, North Carolina, the United States.

Guthrie, J. T., & Wigfield, A. (2009). Engagement and motivation in reading. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.). *Handbook of reading research: Volume III* (pp. 403-422). Mahwah: Routledge.

Guthrie, J. T., Wigfield, A., Metsala, J. L., & Cox, K. E. (1999). Motivational and cognitive predictors of text comprehension and reading amount. *Scientific Studies of Reading*, *3*(3), 231-256.

Hajiyeva, K. (2015). Exploring the relationship between receptive and productive vocabulary sizes and their increased use by Azerbaijani English majors. *English Language Teaching*, *8*(8), 31-45.

Han, Z., & Chen, C. L. A. (2010). Repeated-reading-based instructional strategy and vocabulary acquisition: A case study of a heritage speaker of Chinese. *Reading in a Foreign Language, 22*(2), 242-262.

Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.

Hedgcock, J. S., & Ferris, D. F. (2018). *Teaching readers of English: Students, texts, and contexts* (2nd ed.). New York, NY: Routledge.

Hiebert, E. H., Samuels, S. J., & Rasinski, T. (2012). Comprehension-based silent reading rates: What do we know? What do we need to know? *Literacy Research and Instruction, 51*(2), 110-124.

Hirsh, D., & Nation, I. S. P. (1992). What vocabulary size is needed to read unsimplified texts for pleasure? *Reading in a Foreign Language, 8*(2), 689-696.

Homan, S. P., Klesius, J. P., & Hite, C. (1993). Effects of repeated readings and nonrepetitive strategies on students' fluency and comprehension. *The Journal of Educational Research, 87*(2), 94-99.

Horst, M., Cobb, T., & Meara, P. (1998). Beyond a Clockwork Orange: Acquiring second language vocabulary through reading. *Reading in a Foreign Language, 11*, 207–223.

Hsu, Y. Y., & Lee, S. Y. (2005). Does extensive reading also benefit junior college students in vocabulary acquisition and reading ability? *Proceedings of The 22nd Conference in English Teaching and Learning*, pp.116-127. National Taiwan Normal University, June 4, 2005. Taipei.

Hsu, Y. Y., & Lee, S. Y. (2009). A three-year longitudinal study of in-class sustained silent reading with Taiwanese vocational college students. *Indonesian Journal of English Language Teaching, 5*(1), 15-29.

Hsui, Y. V. (2000). Guided Independent Reading (GIR): A programme to nurture lifelong readers. *Teaching and Learning, 20*(2), 31-39.

Hu, M., & Nation, I. S. P. (2000). Unknown vocabulary density and reading comprehension. *Reading in a Foreign Language, 13*(1), 403–430.

Hu, M., & Nassaji, H. (2016). Effective vocabulary learning tasks: Involvement load hypothesis versus technique feature analysis. *System, 56*, 28-39.

Hwang, J. (2018). Effects of sustained silent reading as an ER approach on L2 reading attitudes in EFL college classrooms. *Journal of the Korea English Education Society, 17*(3), 23-51.

Jeon, E. H., & Yamashita, J. (2014). L2 reading comprehension and its correlates: A meta-analysis. *Language Learning*, *64*(1), 160-212.

Jiang, X. (2011). The role of first language literacy and second language proficiency in second language reading comprehension. *The Reading Matrix, 11*(2), 177-190.

Jiang, X. (2017). Lower-level processing skills in English-as-a-Second-Language reading comprehension: Possible influence of first language orthography. *Studies in English Language Teaching*, *5*(3), 448-465.

Just, M. A., & Carpenter, P. A. (1987). *The psychology of reading and language comprehension*. Needham Heights, MA, US: Allyn & Bacon.

Karlin, O., & Romanko, R. (2010). Examining multiple variables within a single ER setting. *Reading Matrix: An International Online Journal*, *10*(2), 181-204.

Kim, Y. S., Wagner, R. K., & Foster, E. (2011). Relations among oral reading fluency, silent reading fluency, and reading comprehension: A latent variable study of first-grade readers. *Scientific Studies of Reading*, *15*(4), 338-362.

King, S. (2008). *Misery (Level 6)*. Cambridge: Pearson English Readers.

Kirchhoff, C. (2013). L2 extensive reading and flow: Clarifying the relationship. *Reading in a Foreign Language*, *25*(2), 192–212.

Kırkgöz, Y. (2007). English language teaching in Turkey: Policy changes and their implementations. *RELC Journal*, *38*(2), 216-228.

Koda, K. (1992). The effects of lower-level processing skills on FL reading performance: Implications for instruction. *The Modern Language Journal*, *76*(4), 502-512.

Koda, K. (1997). Orthographic knowledge in L2 lexical processing: A cross-linguistic perspective. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition: A rationale for pedagogy* (pp. 35-52). New York, NY: Cambridge University Press.

Koda, K. (2005). *Insights into second language reading: A cross-linguistic approach*. Cambridge: Cambridge University Press.

Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. London & New York: Longman.

Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *The Modern Language Journal*, *73*(4), 440-464.

Krashen, S. (1993). *The power of reading: Insights from the research*. Englewood, CO: Libraries Unlimited.

Krashen, S. D. (2004). *The power of reading* (2nd ed.). Portsmouth, NH: Heinemann.

Krashen, S. (2007). Extensive reading in English as a foreign language by adolescents and young adults: A meta-analysis. *International Journal of Foreign Language Teaching, 3*(2), 23-29.

Krashen, S. (2018). The conduit hypothesis: How reading leads to academic language competence. *Language Magazine*, 18-21.

Krashen, S., & Mason, B. (2017). Sustained silent reading in foreign language education: An update. *Turkish Online Journal of English Language Teaching (TOJELT), 2*(2), 70-73.

Krashen, S. D., & Terrell, T. D. (1983). *The natural approach: Language acquisition in the classroom.* Oxford, OX: Pergamon Press.

Kuhn, M. R., & Stahl, S. A. (2003). Fluency: A review of developmental and remedial practices. *Journal of Educational Psychology*, *95*(1), 3-21.

LaBerge, D., & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology, 6*(2), 293–323.

Landi, N. (2010). An examination of the relationship between reading comprehension, higher-level and lower-level reading sub-skills in adults. *Reading and Writing, 23*(6), 701-717.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, MA: Cambridge University Press.

Laufer, B. (1989). What percentage of text-lexis is essential for comprehension? In C. Lauren & M. Nordman (Eds.), *Special language: From humans to thinking machines* (pp. 316–323). Clevedon, England: Multilingual Matters.

Laufer, B. (1992). How much lexis is necessary for reading comprehension? In H. Bejoint, & P. Arnaud (Eds.), *Vocabulary and applied linguistics* (pp. 126–132). Basingstoke & London: Macmillan.

Laufer, B. (1998). The development of passive and active vocabulary: Same or different? *Applied Linguistics, 19*, 255-271.

Laufer, B. (2005). Instructed second language vocabulary learning: The fault in the 'default hypothesis.' In A. Housen & M. Pierrard (Eds.), *Investigations in instructed second language acquisition* (pp. 311–329). Berlin: Mouton de Gruyter.

Laufer, B., Elder, C., Hill, K., & Congdon, P. (2004). Size and strength: do we need both to measure vocabulary knowledge? *Language Testing, 21*(2), 202–226.

Laufer, B., & Nation, I. S. P. (1999). A vocabulary-size test of controlled productive ability. *Language Testing, 16*(1), 33-51.

Laufer, B., & Paribakht, T. S. (1998). The relationship between passive and active vocabularies: Effects of language learning context. *Language Learning, 48*(3), 365-391.

Lazaraton, A. (2005). Quantitative research methods. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 209-224). Mahwah, N.J.: Lawrence Erlbaum.

Leather, S. (2001). *The Amsterdam Connection Level 4*. Cambridge: Cambridge University Press.

Lee, S. Y. (2005). Sustained silent reading using assigned reading: Is comprehensible input enough? *The International Journal of Foreign Language Teaching, 1*(4), 10-12.

Lee, S. Y. (2006). A one-year study of SSR: University level EFL students in Taiwan. *International Journal of Foreign Language Teaching*, 2(1), 6–8.

Lee, S. Y., & Hsu, Y. Y. (2007). Does extensive reading work with vocational college students? Proceedings of 2007 International Conference and Workshop on TEFL & Applied Linguistics.

Lee, J. W., & Schallert, D. L. (1997). The relative contribution of L2 language proficiency and L1 reading ability to L2 reading performance: A test of the threshold hypothesis in an EFL context. *Tesol Quarterly*, *31*(4), 713-739.

Lee, H. N., & Mallinder, M. (2017). Role of extensive reading in EFL vocabulary development: Review and recommendation. *The English Teacher, 19*, 145-163.

Lee, J., & Yoon, S. Y. (2017). The effects of repeated reading on reading fluency for students with reading disabilities: A meta-analysis. *Journal of Learning Disabilities*, *50*(2), 213-224.

Lin, D. T. A., Choo, L. B., & Pandian, A. (2012). Learners' perceptions of sustained silent reading practices in tertiary classrooms. *Procedia-Social and Behavioral Sciences, 55,* 266-274.

Liu, S. (2014). L2 reading comprehension: Exclusively L2 competence or different competences? *Journal of Language Teaching and Research, 5*(5), 1085-1091.

Liu, Y. T., & Todd, A. G. (2014). Dual-modality input in repeated reading for foreign language learners with different learning styles. *Foreign Language Annals, 47*(4), 684-706.

Loewen, S. (2015). *Introduction to instructed second language acquisition.* New York, NY: Routledge.

Lortie, D. (1975). *Schoolteacher: A sociological study*. London: University of Chicago Press.

Macalister, J. (2014). Teaching reading: Research into practice. *Language Teaching, 47*(3), 387-397.

Mason, B., & Krashen, S. (1997). Extensive reading in English as a foreign language. *System, 25*(1), 91–102.

Masoumi, S. A., & Sadeghoghli, H. (2017). The impact of Extensive Reading through Sustained Silent Reading on Iranian EFL learners' reading comprehension and vocabulary repertoire. *Journal of Applied Linguistics and Language Research, 4*(8), 267-279.

Martinez-Adrian, M., & Gallardo del Puerto, F. (2010). L2 English receptive and productive vocabulary in senior learners. *International Journal of Applied Linguistics, 160*, 112-131.

Matsui, T., & Noro, T. (2010). The effects of 10-minute sustained silent reading on junior high school EFL learners' reading fluency and motivation. *Annual Review of English Language Education in Japan, 21*, 71-80.

McCracken, R. A. (1971). Initiating sustained silent reading. *Journal of Reading, 14*(8), 521-583.

McCracken, R. A., & McCracken, M. J. (1978). Modeling is the key to sustained silent reading. *The Reading Teacher, 31*(4), 406-408.

McKenna, M. C., & Kear, D. J. (1990). Measuring attitude toward reading: A new tool for teachers. *The Reading Teacher, 43*(9), 626-639.

McLean, S., & Rouault, G. (2017). The effectiveness and efficiency of extensive reading at developing reading rates. *System, 70*, 92-106.

Meara, P. (1997). Towards a new approach to modelling vocabulary acquisition. In N. Schmitt, & M. McCarthy (Eds), *Vocabulary: Description, acquisition and pedagogy* (pp. 109-121). Cambridge. Cambridge University Press.

Mermelstein, A. D. (2014). Improving EFL learners' reading levels through extensive reading. *The Reading Matrix, 14*(2), 227-242.

Meyers, R. (1998). Uninterrupted Sustained Silent Reading. (ERIC Document Reproduction Service No. ED418379)

Mikami, A. (2017). Students' attitudes toward extensive reading in the Japanese EFL context. *Tesol Journal, 8*(2), 471-488.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Herman, P., Anderson, R., Pearson, D., & Nagy, W. (1987). Incidental acquisition of word meaning from expositions with varied text features. *Reading Research Quarterly, 22*, 263–282.

Nassaji, H. (2003). Higher–level and lower–level text processing skills in advanced ESL reading comprehension. *The Modern Language Journal, 87*(2), 261-276.

Nation, I. S. P. (1990). *Teaching and learning vocabulary.* New York, NY: Newbury House.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

Nation, I. S. P. (2005a). *Learning vocabulary in another language* (7th ed.). Cambridge: Cambridge University Press.

Nation, I. S. P. (2005b). Reading faster. *PASAA, 36*, 21-35.

Nation, P., & Meara, P. (2010). Vocabulary. In N. Schmitt (Ed.), *An introduction to applied linguistics* (2nd ed.) (pp. 34-52). Oxon: Routledge.

National Reading Panel. (2000). *Report of the subgroups: National Reading Panel*. Washington, DC: National Institute of Child Health and Human Development.

Nuttall, C. (1982). *Teaching reading skills in a foreign language* (1st ed.). London: Heinemann.

Nuttall, C. (1987). *Teaching reading skills in a foreign language*. London: Heinemann Educational Books.

Nuttall, C. (1996). *Teaching reading skills in a foreign language* (2nd ed.). Oxford: Heinemann.

O'Shea, L. J., Sindelar, P. T., & O'Shea, D. J. (1985). The effects of repeated readings and attentional cues on reading fluency and comprehension. *Journal of Reading Behavior*, *17*(2), 129-142.

Oxford, R. L. (Ed.). (2003). *Language learning styles and strategies*. Berlin: Mouton de Gruyter.

Özen, E. N., Alpaslan, İ. B., Çağlı, A., Özdoğan, İ., Sancak, M., Dizman, A. O., & Sökmen, A. (2013). *Turkey national needs assessment of state school English language teaching*. Yenimahalle, Ankara: Mattek Matbaacılık.

Öztürk, M. (2015). Vocabulary growth of the advanced EFL learner. *The Language Learning Journal*, *43*(1), 94-109, DOI: 10.1080/09571736.2012.708053

Park, A. Y. (2017). A Comparison of the impact of extensive and intensive reading approaches on the Korean EFL learners' reading rate and reading comprehension development. *International Journal of Applied Linguistics & English Literature*, *6*(3), 131-142.

Park, A. Y., Isaacs, T., & Woodfield, H. (2018). A comparison of the effects of extensive and intensive reading approaches on the vocabulary development of Korean secondary EFL learners. *Applied Linguistics Review*, *9*(1), 113-134.

Paivio, A. (1991). Dual coding theory: Retrospect and current status. *Canadian Journal of Psychology/Revue Canadienne de Psychologie*, *45*(3), 255-287.

Perakyla, A. & Ruusuvuori, J. (2011). Analyzing talk and text. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (pp. 529-543). Thousand Oaks, CA: Sage Publications.

Perfetti, C. A. (1985). *Reading ability.* New York, NY: Oxford University Press.

Perfetti, C. A. (2001). Reading skills. In N. J. Smelser & P. B. Baltes (Eds.). *International encyclopedia of the social & behavioral sciences* (pp. 12800-12805). Oxford: Pergamon.

Petrimoulx, J. (1988). Sustained silent reading in an ESL class: A study. Chicago, IL: TESOL. (ERIC Document Reproduction Service No. ED301068).

Pilgreen, J. L. (2000). *The SSR handbook: How to organize and manage a sustained silent reading program*. Portsmouth, NH: Boynton/Cook Publishers.

Pilgreen, J., & Krashen, S. (1993). Sustained Silent Reading with English as a Second Language high school students: Impact on reading comprehension, reading frequency, and reading enjoyment. *School Library Media Quarterly*, *22*(1), 21-23.

Pignot-Shahov, V. (2012). Measuring L2 receptive and productive vocabulary knowledge. *Language Studies Working Papers*, *4*(1), 37-45.

Plaut, D. C. (2005). Connectionist approaches to reading. In M. J. Snowling, & C. Hulme (Eds.). *The science of reading: A handbook* (pp. 24-38). Oxford: Blackwell Publishing.

Qian, D. D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning*, *52*(3), 513-536.

Quinn, J. (2017). *Benefits of sustained silent reading and self-monitoring for reluctant readers* (Master Thesis). Rowan University, New Jersey, the United States.

Rashotte, C. A., & Torgesen, J. K. (1985). Repeated reading and reading fluency in learning disabled children. *Reading Research Quarterly*, *20*(2), 180-188.

Richards, J. C., & Schmidt, R. W. (2010). *Longman dictionary of language teaching and applied linguistics* (4th ed.). London: Longman.

Robb, T. N., & Susser, B. (1989). Extensive reading vs skills building in an EFL context. *Reading in a Foreign Language*, *5*, 239–251.

Rosenthal, R. (1994). Parametric measures of effect size. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 231-244). New York: Russell Sage Foundation.

Sakai, R. (2009). *Receptive and productive vocabulary size of Japanese undergraduate students: A correlation with reading and writing proficiency.* (Unpublished Master Thesis). Bangkok: Graduate School, Srinakharinwirot University.

Sakurai, N. (2014). Survey Results: Attitude toward sustained silent reading and extensive reading outside the classroom. Kyoto Sangyo Daigaku Ronshu. *Jinmonkagakukeiretsu*, *47*, 1–19.

Samuels, S. J. (1979). The method of repeated readings. *The Reading Teacher*, *32*(4), 403-408.

Saragi, T., Nation, I. S. P., & Meister, F. (1978). Vocabulary learning and reading. *System, 6*, 72–78.

Savasci, M., & Akyel, A. (2018). Possible effects of Sustained Silent Reading in an EFL context: Learner perceptions. *Journal of Extensive Reading*, 114-126.

Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research, 12*, 329-363.

Schmitt, N. (2010). *Researching vocabulary: A vocabulary research manual*. Basingstoke, Hampshire: Palgrave Macmillan.

Serrano, R., & Huang, H. (2018). Learning vocabulary through assisted repeated reading: How much time should there be between repetitions of the same text? *TESOL Quarterly, 52*(4), 971-994. https://doi.org/10.1002/tesq.445

Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (Complete Samples). *Biometrika*, *52*(3/4), 591-611.

Sims, J. M. (1996). *A comparative study of improvements in reading comprehension of skill-based instruction and extensive reading for pleasure with Taiwanese freshman university students* (Unpublished doctoral dissertation). The Florida State University, Florida, the United States.

Stahl, S. A. (1990). Beyond the instrumentalist hypothesis: Some relationships between word meanings and comprehension (Technical report no: 505 of the Center for the Study of Reading). University of Illinois at Urbana-Champaign, IL: Center for the Study of Reading.

Stanovich, K. E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly*, *16*(1), 32-71.

Stoller, F. L., Anderson, N. J., Grabe, W., & Komiyama, R. (2013). Instructional enhancements to improve students' reading abilities. *English Teaching Forum*, *51*, 2–11.

Suk, N. (2015). *Impact of extensive reading in a Korean EFL university setting: A mixed-methods study* (Doctoral dissertation). Northern Arizona University, Arizona, the United States.

Suk, N. (2016). The effects of extensive reading on reading comprehension, reading rate, and vocabulary acquisition. *Reading Research Quarterly, 52*(1), 73-89.

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principle and Practice in Applied Linguistics Studies* (pp. 125-144). Oxford: Oxford University Press.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 495-508). New York, NY: Routledge.

Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6th ed.). Boston: Pearson.

Taguchi, E. (1997). The effects of repeated readings on the development of lower identification skills of FL readers. *Reading in a Foreign Language, 11*(1), 97–119.

Taguchi, E., & Gorsuch, G. J. (2002). Transfer effects of repeated EFL reading on reading new passages: A preliminary investigation. *Reading in a Foreign Language, 14*(1), 43–65.

Taguchi, E., Takayasu-Maass, M., & Gorsuch, G. J. (2004). Developing reading fluency in EFL: How assisted repeated reading and extensive reading affect fluency development. *Reading in a Foreign Language*, *16*(2), 70-96.

Taguchi, E., Gorsuch, G. J., & Sasamoto, E. (2006). Developing second and foreign language reading fluency and its effect on comprehension: A missing link. *The Reading Matrix*, *6*(2), 1–18.

Taguchi, E., Gorsuch, G., Takayasu-Maass, M., & Snipp, K. (2012). Assisted Repeated Reading with an advanced-level Japanese EFL reader: A longitudinal diary study. *Reading in a Foreign Language, 24*(1), 30-55.

Takase, A. (2007). Japanese high school students' motivation for extensive L2 reading. *Reading in a Foreign Language, 19*(1), 1-18.

Tashakkori, A., & Teddlie, C. (Eds.) (2010). *SAGE handbook of mixed methods in social and behavioral research* (2nd ed.). Thousand Oaks, California: SAGE Publications, Inc.

Tavakoli, H. (2012). *A dictionary of research methodology and statistics in applied linguistics*. Iran: Rahnama Press.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Thousand Oaks, California: SAGE Publications.

Therrien, W. J., & Kubina Jr, R. M. (2006). Developing reading fluency with repeated reading. *Intervention in School and Clinic*, *41*(3), 156-160.

Thornbury, S. (2002). *How to teach vocabulary*. Malaysia: Pearson Longman.

Tudor, I., & Hafiz, F. (1989). Extensive reading as a means of input to L2 learning. *Journal of Research in Reading*, *12*(2), 164-178.

Urquhart, A. H., & Weir, C. J. (1998). *Reading in a second language: Process, product and practice*. London & New York: Longman.

Urquhart, A. H., & Weir, C. J. (2013). *Reading in a second language: Process, product and practice* (2nd ed.). Oxford, OX: Routledge.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Walczyk, J. (1995). Testing a Compensatory-Encoding Model. *Reading Research Quarterly*, *30*(3), 396-408. doi:10.2307/747623

Wang, J. H. Y., & Guthrie, J. T. (2004). Modeling the effects of intrinsic motivation, extrinsic motivation, amount of reading, and past reading achievement on text comprehension between US and Chinese students. *Reading Research Quarterly*, *39*(2), 162-186.

Webb, S. (2008). Receptive and productive vocabulary sizes of L2 learners. *Studies in Second Language Acquisition*, *30*(1), 79-95.

Webb, S. (2009). The effects of receptive and productive learning of word pairs on vocabulary knowledge. *RELC Journal*, *40*(3), 360–376.

Webb, S., & Chang, A. C. (2012). Vocabulary learning through assisted and unassisted repeated reading. *Canadian Modern Language Review*, *68*(3), 267-290.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* Cambridge: Cambridge University Press.

Wenger, E. (n.d.). Communities of practice: A brief introduction. Retrieved from https://wenger-trayner.com/introduction-to-communities-of-practice/ on February 5, 2019.

Widdowson, H. G. (1979). *The process and purpose of reading: Explorations in applied linguistics*. Oxford: Oxford University Press.

Wiesendanger, K. D., & Bader, L. (1989). SSR: Its effects on students' reading habits after they complete the program. *Reading Horizons*, *29*(3), 162-166.

Wiesendanger, K. D., & Birlem, E. D. (1984). The Effectiveness of SSR: An overview of the research. *Reading Horizons: A Journal of Literacy and Language Arts, 24*(3), 197-201.

Wigfield, A. (1997). Reading motivation: A domain-specific approach to motivation. *Educational Psychologist, 32*(2), 59-68.

Wigfield, A., & Guthrie, J. T. (1997). Motivation for reading: An overview. *Educational Psychologist*, *32*(2), 57-58.

Wilkins, D. A. (1972). *Linguistics in language teaching*. Cambridge, MA: MIT Press.

Williams, N. A. (2011). *The effects of Sustained Silent Reading on motivation to read* (Unpublished doctoral dissertation). Walden University, Minnesota, the United States.

Yamamoto, Y. (2011). Bridging the gap between receptive and productive vocabulary size through extensive reading. *The Reading Matrix, 11*(3), 226-242.

Yamashita, J. (1999). *Reading in a first and a foreign language: A study of reading comprehension in Japanese (the L1) and English (the L2)* (Unpublished PhD thesis). Lancaster University, Lancaster, England.

Yamashita, J. (2002). Mutual compensation between L1 reading ability and L2 language proficiency in L2 reading comprehension. *Journal of Research in Reading, 25*(1), 81-95.

Yamashita, J. (2015). In search of the nature of extensive reading in L2: Cognitive, affective, and pedagogical perspectives. *Reading in a Foreign Language, 27*(1), 168–181.

Yilmaz, C. (2012). An Investigation into Turkish EFL students' attributions in reading comprehension. *Journal of Language Teaching and Research, 3*(5), 823- 828.

Yoon, J. C. (2002). Three decades of sustained silent reading: A meta-analytic review of the effects of SSR on attitude toward reading. *Reading Improvement, 39*(4), 186-195.

Zahar, R., Cobb, T., & Spada, N. (2001). Acquiring vocabulary through reading: Effects of frequency and contextual richness. *Canadian Modern Language Review, 57*(4), 541-572.

Zheng, Y. (2009). Exploring Chinese EFL learners' receptive and productive vocabulary knowledge: Implications for EFL vocabulary teaching. *The Journal of Asia TEFL, 6*(1), 163-188.

Zhong, H. F. (2018). The relationship between receptive and productive vocabulary knowledge: A perspective from vocabulary use in sentence writing. *The Language Learning Journal*, *46*(4), 357-370.

APPENDICES

Appendix A: Reading Activities Implemented in the SSR and ARR Groups

"Predictions about the book"

Activity: This activity requires readers to predict the details about the book by the characteristics of the book such as its blurb, cover page, etc., and to share their predictions following the reading activity.

Source: Adapted from 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: The goal here is to help readers think critically and make predictions about the book. Moreover, this activity aims to help them feel more comfortable while sharing their ideas with others by encouraging them to talk about the books they read.

Procedures (for students and teacher): The students, before they start reading, make predictions about the book and write them down on a piece of paper. Then, they start reading the book. Afterward, the teacher asks them to read their own predictions and compare them to the characteristics of the book and think whether their predictions were correct or not. For example, they might, based upon the book blurb and the cover, predict that they are going to read a love story. However, in fact, the book turns out to be an adventure. Then, they discuss it with their deskmates first and are invited to present this comparison to the class orally. The teacher provides the instructions for the activity as well as manages and monitors the procedure by providing assistance where/when necessary.

Materials needed: A graded reader/book, pen, paper.

"I know what comes next"

Activity: This activity comprises practicing reading, writing, and speaking skills. It consists of comparing their predictions with the events that take place in the book and presenting it to the others.

Source: Adapted from 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: The goal of this activity is to make the readers think about the book and help them read more critically.

Procedures (for students and teacher): At the beginning of the session, the students are asked to think about the events that have taken place in the books they have been reading and read the latest page they have read once again (to remember what is going on in the book). Then, they are asked to predict what might come next in the following pages. They are encouraged to write their predictions on a piece of paper, and they continue reading their books. They stop reading after some time, and the teacher asks them to refer back to their predictions and think whether they came true or not. The students first think individually, share it with the person sitting next to them, and are then asked to discuss this comparison to the class on the stage. The teacher provides the instructions as well as manages, monitors, and scaffolds the whole procedure.

Materials needed: A graded reader/book, pen, paper.

"Writing a letter to one of the characters"

Activity: This activity comprises practicing reading, writing, and speaking skills.

Source: 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: The goal here is to encourage the students to read and speak more by creating a sincere environment in which they can share their ideas about the book comfortably.

Procedures (for students and teacher): The students start reading their books and they read them for a certain period of time. Then, the teacher provides the necessary instructions for the activity: The students are first asked to pick a character from the book and then write a letter to him/her. They are also told that they can write a letter to any of the characters in the book and they can tell them whatever they like. Students are given some time (approximately 15-20 minutes) to write their letters, and then the teacher asks them to come to the stage. On the stage, each student briefly talks about the book and the character s/he picked (as well as why s/he picked that character to write a letter to). Then, s/he reads the letter to the class. Then, the class has a whole-group discussion, in which the other students and the teacher ask them some questions such as the reasons for picking that character, et cetera. The teacher monitors and guides the procedure. In the end, they might pick the best letter among others.

Materials needed: A graded reader/book, pen, paper.

"Putting oneself in the shoes of a film director and naming famous actors and actresses for three characters from the book"

Activity: This activity involves practicing reading, writing, and speaking skills, in which the students are asked to put themselves in the shoes of a film director and to pick actors and actresses who can star in the movie of the book based upon the information given in the book.

Source: Adapted from 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: The goal of this activity is to check the students' comprehension of the book in an informal way by promoting their speaking and critical thinking skills.

Procedures (for students and teacher): The teacher creates an imaginary scenario by telling students that the movie versions of the books/graded readers they are reading are going to be produced. The teacher also tells them that students are offered to become the film director of the movie to be shot and that is why they should think about the characters in the book/graded reader and pick the actors and actresses who would/can best star in that movie. Students are given some time (approximately 10-15 minutes) to think about which actors and actresses they would make an offer for their movie and why. If they like, they can take short notes or consult their classmates. During this time, the teacher walks around the classroom and monitors/helps the students. When the time is up, each student is invited to the stage individually. S/he first summarizes the book and talks about the main characters in the book very briefly. Afterwards, s/he discusses the names of the actors and actresses who would star for those main characters and why s/he, as the director of the movie, picks those names. The other students and the teachers listen

to the student and they also suggest some other names for the characters in the book. Each student, by taking turns, presents her/his decision and the reasons for her/his decision regarding the actors and actresses to star in her/his movie, and a whole-class discussion environment is created in the classroom. Finally, students pick the student who considered the best match for her/his movie.

Materials needed: A graded reader/book, pen, paper.

"What would you do if you were in the shoes of one of the characters in the book?"

Activity: This is an activity which helps students to practice their reading, writing, and speaking skills. They are asked to pick one of the characters in the book and consider what they would do if they were in the shoes of that character.

Source: Adapted from 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: The goal of this activity is to encourage students to speak more about the books they read by helping them create a whole-class discussion environment.

Procedures (for students and teacher): The teacher tells students to pick a character from the books/graded readers they read and think of an interesting/a difficult situation that character is in. Then, the teacher asks students to put themselves in the shoes of that character and to think about what they would do if they encountered such a situation. Students are given some time (around 10-15 minutes) to think about these, and if they like, they can also take some short notes. The teacher walks around the classroom to monitor and help students (if/when necessary). After the time is up, each student is invited to the stage where s/he first describes the situation the character is in. Then, s/he asks her/his friends what they would do in this situation and the other students contribute to the discussion by expressing what they would do in such a situation. Afterwards, the student on the stage shares her/his ideas regarding what s/he would do if s/he encountered such an interesting/a difficult situation. Finally, together, students choose the best solution for that situation among others.

In fact, this activity can be used as a pre or post-reading activity. If one would like to use it as the pre-activity, after students' presentation, the reading session starts. And

after the reading session, each student is asked whether that character solved the case in a similar/different way.

Materials needed: A graded reader/book, pen, paper.

"Putting oneself in the shoes of the author and advertising the book by preparing the poster of the book"

Activity: This activity is an activity which promotes creativity as well as critical thinking and speaking skills of the students.

Source: Adapted from 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: In this activity, the goal is to promote students' critical thinking and speaking skills by also promoting their creativity. Basically, the goal is to check the students' understanding of the book/graded reader they read.

Procedures (for students and teacher): The teacher creates a scenario in which the students become the authors of the books/graded readers they read. The teacher tells them to imagine that they are the author of the book/graded reader they read and that they would promote/advertise their books in a book fair. Then, s/he distributes an A3-size paper on which students are required to prepare their books' posters by also including elements from their books. They are given some time at around 20-25 minutes to prepare their posters and then all the students hang their posters all around the classroom walls. Afterwards, the teacher and students start visiting each poster and try to interpret the poster and make predictions about the details in the book. After they discuss such things together, they listen to the promotion of the book from the student who prepared the poster and see whether their predictions are correct or not. Each student takes turns to present her/his poster while the other students and the teacher listen to her/him. They all imagine that they are in a book fair and that they meet the authors of the books, in which they are given a chance to meet the author and ask questions about the book. The student

presenting the poster acts like s/he is the author and answers the questions regarding her/his book. By doing so, a sincere discussion environment is created where the students practice their speaking skills as well as check their own comprehension of the book/graded reader. At the same time, the teacher informally checks the student's comprehension of the book and students are encouraged to think critically. At the end of the activity, the best poster is picked by the students and the teacher asks them which book they like the most and which one they would buy while leaving the book fair.

Materials needed: A graded reader/book, pen, paper, crayons.

"The book and me"

Activity: This activity is about discussing the similarities and differences between the students and the books/graded readers they read.

Source: Adapted from 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: The goal in this activity is to promote students' critical thinking skills by encouraging them to think about the book/graded reader they read from a critical perspective. Through this activity, another goal is to promote their speaking skills.

Procedures (for students and teacher): The teacher asks students to think about the characteristics of the book/graded reader they read as well as about the characteristics of the characters depicted in the book/graded reader. Specifically speaking, students are asked to think about the potential similarities and differences between the books/graded readers or characters in those books/graded readers and themselves. The teacher provides some time (approximately 15-20 minutes) to the students. If they like, students can go over the pages of the books/graded readers and take some short notes. During this time, the teacher walks around and has small chats with the students in order to help and/or to monitor them. After the time is up, students are invited to the stage individually, where they present the similar and different points they find about the books/graded readers as well as about the characters depicted in the book. And the other students ask questions or add comments regarding these similarities and differences.

Materials needed: A graded reader/book, pen, paper.

"A different ending"

Activity: In this activity, the students practice their writing and speaking skills, where they are asked to change the end of the book they read.

Source: Adapted from 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: The goal of this activity is to promote students' critical thinking skills as well as to encourage them to speak about the book they read. Another goal is to check their understanding of the book/graded reader they read.

Procedures (for students and teacher): The teacher asks the students to think about the end of the book/graded grader or a chapter in that book/graded reader and to consider the different ways to end the book or the chapter. In other words, they are asked to put themselves in the shoes of the author and they are asked how they would end the book/chapter if they were the author of the book/graded reader. If they like, they can take short notes. Students are given at around 15-20 minutes to think about a different ending and then the teacher asks each of them to come to the stage. First, the teacher asks the student on the stage to summarize the book very briefly, without telling its end. The audience (i.e., the other students) are then asked to think of a potential ending and share it with the student on the stage. By doing so, a discussion environment is created in the classroom. Afterwards, the student on the stage shares how he/she would finish the book by discussing an alternative ending. Finally, s/he shares the real ending of the book/graded reader and the whole class picks the best ending for that book. The teacher guides and monitors the whole procedure.

Materials needed: A graded reader/book, pen, paper.

"Act it out!"

Activity: This activity enables students to act out a scene from the books/graded readers they read.

Source: Adapted from 101 Ideas for Extensive Reading and Listening (Extensive Reading Central)

Goal/ Purpose: The goal of this activity to involve students in a collaborative book-related activity through a dramatic presentation of the books students read.

Procedures (for students and teacher): The teacher initially asks the students to form groups of three-four students. After students form their groups, the teacher tells students to decide upon a book which they would like present. Each group discusses the name and the plots of the books they read. Having decided upon the title of the book, they should pick a scene from that book to act out. Afterwards, they are given at around 35-40 minutes to practice that scene before coming to the stage and performing it. The teacher helps them when/if necessary and each group gets ready by rehearsing for their performance. When the time is up, each group is invited to the stage to act out a part from the book for about 5 minutes. Then, the teacher asks the other students' (i.e., the audience) perceptions of the book. The whole class also discusses what might happen next in the book, and the student who read the book confirms/disapproves the others' predictions based upon her/his comprehension of the book. After each group acts out their parts, they decide upon the group whose performance was the most successful.

Materials needed: A graded reader/book.

Appendix B: Reading Log

_____’S READING LOG

WEEK	DATE	BOOK		PAGES READ		TIME READ
		Title of the Book	Level of the Book	from…- to…		from…- to…

Appendix C: Reading Activity of the SSR Group (individual and average amount read by the SSR group)

Participant	The title of the books the participant read	Word count	Total word count read
Participant 1	This Rough Magic (Stage 5- OBL)	24.750	103.592
	The Secret Garden (Stage 3- OBL)	10.715	
	Mr. Midshipman Hornblower (Stage 4- OBL)	14.700	
	Thirty-Nine Steps (Stage 4- OBL)	17.170	
	The Dead of Jericho (Stage 5- OBL)	27.170	
	Tooth and Claw* (Stage 3- OBL)	1.297	
	Desert, Mountain, Sea* (Stage 4- OBL)	7.790	
Participant 2	Thirty-Nine Steps (Stage 4- OBL)	17.170	52.140
	Love Story (Stage 3- OBL)	8.755	
	The Whispering Knights (Stage 4- OBL)	17.100	
	The Year of Sharing (Stage 2- OBL)	6.390	
	The Dead of Jericho* (Stage 5- OBL)	2.725	
Participant 3	Dracula (Stage 4- PR)	12.755	43.928
	The Age of Innocence (Stage 5- OBL)	24.820	
	Pride and Prejudice* (Stage 5- PR)	6.353	
Participant 4	The Age of Innocence (Stage 5- OBL)	24.820	87.584
	Tess of the D'urbervilles (Stage 6- OBL)	33.060	
	Moonstone (Stage 6- PR)	29.704	
Participant 5	The Whispering Knights (Stage 4- OBL)	17.100	52.770
	Persuasion (Stage 4- OBL)	19.370	
	The Dead of Jericho* (Stage 5- OBL)	16.300	
Participant 6	Pride and Prejudice (Stage 4- HGR)	23.606	58.740
	The Speckled Band and Other Stories (Stage 4-	12.657	
	HGR)	993	
	Great Expectations* (Stage 5- OBL)	5.292	
	Persuasion* (Stage 4- OBL)	16.192	
	The Return of the Native* (Stage 5- HGR)		

Participant 7	Three Men in a Boat (Stage 4- OBL)	18.055	49.165
	Treasure Island (Stage 4- Longman)	15.125	
	The Secret Garden (Stage 3- OBL)	10.715	
	Vanity Fair* (Stage 6- OBL)	5.270	
Participant 8	The Return of the Native (Stage 5- HGR)	24.935	54.775
	Jane Eyre (Stage 4- NR)	7.776	
	Reflex (Stage 4- OBL)	16.500	
	Desert, Mountain, Sea* (Stage 4- OBL)	5.564	
Participant 9	The Woman in White (Stage 6- PR)	25.937	56.710
	A Christmas Carol* (Stage 4- CEL)	14.350	
	Great Expectations* (Stage 5- OBL)	16.423	
Participant 10	Persuasion (Stage 4- OBL)	19.370	117.960
	Mr. Midshipman Hornblower (Stage 4- OBL)	14.700	
	This Rough Magic (Stage 5- OBL)	24.750	
	Misery (Stage 6- PEL)	27.217	
	Decline and Fall* (Stage 6- OBL)	8.927	
	Vanity Fair* (Stage 6- OBL)	10.980	
	Memoirs of a Geisha* (Stage 6- PR)	12.016	
Participant 11	Great Expectations (Stage 5- OBL)	24.045	55.126
	The Firm (Stage 5- PR)	19.180	
	Scotland (B1-CER)	11.901	
Participant 12	The Dead of Jericho (Stage 5- OBL)	27.170	51.920
	This Rough Magic (Stage 5- OBL)	24.750	
Participant 13	The Hound of the Baskervilles (Stage 4- OBL)	19.330	60.157
	The Dead of Jericho* (Stage 5- OBL)	3.250	
	Memoirs of a Geisha (Stage 6- PR)	31.483	
	Northanger Abbey* (Stage 6- PR)	6.094	
Participant 14	Jane Eyre (Stage 4- NR)	7.776	61.718
	The Big Sleep (Stage 4- OBL)	15.960	
	Mr. Midshipman Hornblower (Stage 4- OBL)	14.700	
	The Whispering Knights (Stage 4- OBL)	17.100	
	Thirty Nine Steps* (Stage 4- OBL)	6.182	

Participant 15	Meet me in Istanbul (Stage 4-Heinemann)	10.754	76.589
	Pride and Prejudice (Stage 5-Penguin)	42.445	
	The Bride Price (Stage 5-OBL)	22.620	
	The Firm* (Stage 5-Penguin)	770	
		M	65.524
		SD	21.479.74

*Incomplete books

** OBL- Oxford Bookworms Library, CEL- Collins English Library, PR- Pearson Readers, HGR- Heinemann Guided Readers, NR- Nelson Readers, CDE- Cambridge Discovery Education, CER- Cambridge Experience Readers

Appendix D: Reading Comprehension and Silent Reading Rate Test

TEXT 1

Read the advertisement for Camp Belmont and answer the questions below. Please note down the time you spent while reading the text. Circle the correct answer, as in the example.

Camp Belmont

Camp Belmont is one of the oldest day camps in the UK. It was founded 25 years ago by British couple Michael and Margaret Martins. Michael and Margaret had been employed in the USA and thought the idea would work well in the UK too. Within 5 years of opening, Camp Belmont was operating on 10 sites in the London area. This has risen to 16.

Day camps are organized throughout the summer and are open to children and teenagers between 5 and 16. The day campers are placed in groups with others of the same age. The camps are hosted at schools and colleges which would normally be closed in the summer. This allows Camp Belmont to have its day camps on sites that have excellent grounds and facilities, particularly those for sport.

Young people can feel bored in the long summer holidays, especially if parents are working. By attending day camp, they can have fun-filled days in a safe environment and, unlike other summer camps, return home safely in the evening.

Campers usually arrive at about 8.30 am and spend the day doing a range of activities (usually up to 6) – sporting, artistic and adventurous. A special advantage for mum and dad is that pick-up is around 4.30 pm, so times are more or less the same as in a standard school day. Camp is based on a weekly programme, but it is possible to have 3-day programmes and even single day ‘taster programmes’ to see if young people like the experience.

All the sites have sports halls and indoor swimming pools, if it’s too wet or cold for the organized outdoor activities. Camps have their own directors who plan everything and are well-qualified and experienced staff. All camps are regularly inspected. Check out our website for full details.

Time spent for reading: _____ minutes _____seconds _____milliseconds

QUESTIONS- TEXT 1

Example: What do we learn about Camp Belmont?

a. It's the oldest day camp in the United Kingdom.
b. It's been operating for a quarter of a century.
c. It's operated by a company based in the U.S.A.

1. How long did it take for Camp Belmont to acquire ten sites?
   a. less than 5 years
   b. just over 5 years
   c. more than 25 years

2. Why is it easy for the company to find host sites?
   a. There are many schools in the London area.
   b. Schools aren't usually open in the summer.
   c. Excellent sporting facilities are available.

3. What's the main difference between Belmont Camp and other camps?
   a. There are more facilities.
   b. Day camp is much safer.
   c. You don't stay overnight.

4. Why do parents particularly like day camp?
   a. The hours are similar to those of school.
   b. The children can do 6 different activities.
   c. 'Taster Programmes' are always on offer.

5. What sometimes changes a day camp programme?
   a. a camp inspection
   b. the weather
   c. the director's plans

TEXT 2

Read the report below and answer the questions.

Weston Wins Again!

For the third year running, Weston College has won the annual Williams Trophy Cup. The silver cup was given by Peter Williams when he retired as Head of Physical Education at Weston College after ten years of service. Before this, however, he spent five years teaching sport at Minett Academy. The two colleges, only two kilometers apart, have traditionally been sports rivals. With this in mind, Mr.Williams decided to celebrate his career with an annual football match. This year Weston won 3-2 in a closely-fought game. Sadly, Mr. Williams was unable to present the Cup in person, as he was unwell.

Time spent for reading: _____ minutes _____seconds _____milliseconds

QUESTIONS- TEXT 2

Example: How often is the Williams Cup Match played?

Annually/ every year

6. What is the trophy made of?

   Silver

7. Which college did Mr.Williams first work at?

   Minnett academy

8. How close are the two colleges to each other?

   Only 2 kilometres

9. What prevented Mr.Williams from attending this year's match?

   Illness; he was unwell

TEXT 3

The Early Career of James Whitton

James Whitton founded the travel agency known as the James Whitton Group, which has offices worldwide. He grew up in Kingston Street in the small village of Keighley, in Yorkshire, the first child of Jack and Anne Whitton.

Aged 10 James got his first job, working as an assistant to a local market gardener and earning just six pence a week. Once he turned 15, he secured an apprenticeship as a carpenter and did this for five years. He had been brought up as a strict Baptist, and aged just 19 he became a preacher, touring Yorkshire and the surrounding area speaking as a public speaker in religious matters. He was particularly committed to promoting a society without alcohol. He continued with carpentry occasionally in order to earn the money to finance his vocation. Much of this work involved organising prayer meetings, distributing leaflets and encouraging people to avoid alcohol.

The idea to offer excursions to travellers came about one day whilst he was waiting for a stage coach into London. The Counties Railway had just reopened following an extension programme, and Whitton wanted to take a group of 600 anti-alcohol campaigners from Leeds to the neighbouring town of Bradford. The railway company agreed each person would pay one shilling for the journey, including food for the journey as well as the rail ticket. This journey, on 7 July 1842, was the first privately chartered excursion train to be publicly advertised although Whitton always acknowledged that there had been earlier, unadvertised private excursion trains.

Whitton was paid commission by the railway company as the tickets themselves, being legal contracts between the company and its passengers, couldn't have been issued at his price. The success of this venture led Whitton to plan a series of outings for religious organisations, and in 1845 he formalised an ongoing arrangement with the rail company, whose only insistence was that he brought them the passengers. Thus Whitton established a successful business running rail excursions for pleasure, whereby he took a percentage of the cost of the tickets. His business expanded from there.

Time spent for reading: _____ minutes _____seconds _____milliseconds

QUESTIONS- TEXT 3

Example: In which village did Whitton live as a child?

a. Kingston

b. Keighley

c. Yorkshire

10. What was the main reason for Whitton's ongoing work as a carpenter?

a. It funded his preaching work.

b. He felt it was his vocation.

c. He couldn't break his contract.

11. What was the main purpose of Whitton's work as a preacher?

a. It meant he could continue to work in Yorkshire.

b. He really enjoyed organising prayer meetings.

c. He wanted people to stop drinking alcohol.

12. Why did Whitton start organising private excursions?

a. He had to wait a long time for a stage coach to London.

b. He needed to transport a large group of passengers.

c. Ordinary rail tickets didn't include food for the journey.

13. His charter train from Leeds to Bradford was the first

a. unadvertised private excursion train.

b. privately chartered excursion train.

c. widely publicised excursion train.

14. The Counties Railway gave Whitton a permanent contract to run excursions on condition that

a. he found all the customers for them.

b. the excursions had a religious purpose.

c. all arrangements were very formal.

TEXT 4

Read the article below and answer the questions.

Bristol International Airport

Bristol International Airport currently handles 4.6 million passengers a year, with flights to 90 destinations.

The airport was the brainchild of local businessmen in 1927. Through public subscriptions, they raised £6000 to open a flying club at Filton Aerodrome, Concorde's birthplace. Inspired by early success, they then bought an area of farmland south of the city. Prince George opened the airport in 1930. It thrived, handling 4000 passengers in 1939.

However, during the Second World War, the airport was taken over by the Air Ministry for military operations. After the war finished in 1945, many felt it had no future, but ten years later, the airport moved site after it was purchased by the Bristol Corporation for £55,000. It has been based there ever since. Passenger numbers have continued to rise, with the airport expected to handle 12 million passengers by 2030, and to need a longer runway.

Time spent for reading: _____ minutes _____seconds _____milliseconds

QUESTIONS- TEXT 4

Example: How many passengers use Bristol Airport each year?

4.6 million

15. Where did the idea for the original airport come from?

Local businessmen

16. Who ran the airport throughout the Second World War?

The air ministry

17. What happened to the airport in 1955?

It moved site/ it was purchased by the Bristol Corporation

18. What new development is the airport likely to require?

A longer runway

Appendix E: Items in the Motivation for Reading Questionnaire (Adapted from Wang & Guthrie, 2004)

Type of motivation	Dimensions	Items
Intrinsic motivation	Curiosity	1. I like to read because I always feel happy when I read things that are of interest to me. 2. If the teacher discusses something interesting I might read more about it. 3. I have favourite subjects that I like to read about. 4. I read to learn new information about topics that interest me. 5. I read about my hobbies to learn more about them. 6. I like to read about new things. 7. I enjoy reading books about people in different countries.
	Involvement	1. If I am reading about an interesting topic I sometimes lose track of time. 2. I read stories about fantasy and make believe. 3. I like mysteries. 4. I make pictures in my mind when I read. 5. I feel like I made friends with people in good books. 6. I like to read a lot of adventure stories. 7. I enjoy a long, involved story or fiction book.
	Preference for challenge	1. I like hard, challenging books. 2. If the project is interesting, I can read difficult material. 3. I like it when the questions in books make me think. 4. I usually learn difficult things by reading. 5. If a book is interesting I don't care how hard it is to read.
Extrinsic motivation	Recognition	1. I like having the teacher say I read well. 2. I like having my friends sometimes tell me I am a good reader. 3. I like to get compliments for my reading. 4. I am happy when someone recognizes my reading. 5. I like having people around me often tell me what a good job I am doing in reading.

Grades	1. Grades are a good way to see how well you are doing in reading. 2. I look forward to finding out my reading grade. 3. I like to read to improve my grades. 4. I like people around me to ask me about my reading grade.
Social	1. I like to visit the library often with people around me. 2. My friends and I like to trade things to read. 3. I like to talk to my friends about what I am reading. 4. I like to tell my family about what I am reading.
Competition	1. I try to get more answers right than my friends. 2. I like being the best at reading. 3. I like to finish my reading before other students. 4. I like being the only one who knows an answer in something we read. 5. It is important for me to see my name on a list of good readers. 6. I am willing to work hard to read better than my friends.
Compliance	1. I always do my reading work exactly as the teacher wants it. 2. Finishing every reading assignment is very important to me. 3. I always try to finish my reading on time.

Appendix F: Semi-Structured Focus-Group Interview Questions (Adapted from Suk, 2015)

Reading habit

1. Do you have a reading habit or not? Please explain.
2. Do you like reading in Turkish? Why? When and how often do you read?
3. Do you like reading in English? Why? When and how often do you read?
4. Did you read in English outside the class this term? If so, what and how much did you read?

Graded readers

5. What do you think about the books you read in the class this term?
6. Were the books you read interesting or difficult? Why do you think so?
7. Have you encountered any difficulties while reading? If so, what did you do to solve them?

Reading activities

8. What do you think about the reading activities that you had in the classroom?
9. Did the activities motivate you to read more?

Improvement

10. Which areas of English learning do you think have improved due to the sustained silent reading/assisted repeated reading/traditional reading instruction? Why/ why not?
11. Do you think your comprehension has changed or not? Why do you think so?
12. Do you think the rate you read has changed or not? Why do you think so?
13. Do you think your vocabulary knowledge has changed or not? Why do you think so?
14. Do you think your reading motivation has changed or not? Why do you think so?

Reading motivation/attitudes

15. Do you think you would still read if the reading was not required?
16. Did you ever have any problems with reading English throughout the semester? Why or why not?
17. Do you think you will continue reading in English more? Why/ why not?