# Table of Contents

Dedication ii  
Acknowledgements iii  
Abstract iv  
Table of Contents v  
List of Tables xiv  
List of Figures xi  
Abbreviations xii  

**CHAPTER ONE: INTRODUCTION**  
1.1 Background of the Study 3  
1.2 Statement of the Problem 9  
1.3 Research Objectives 12  
1.4 Research Hypotheses 14  
1.5 Definition of Key Terms 15  
  1.5.1 Coherence 15  
  1.5.2. Cohesion 15  
  1.5.3. Coh-Metrix 15  
  1.5.4. EFL 15  
  1.5.5. ESL 15  
  1.5.6. Expository Text 15  
  1.5.7. Argument Overlap 15  
  1.5.8. Stem Overlap 16  
  1.5.9. Content Word Overlap 16  
  1.5.10. Latent Semantic Analysis 16  
  1.5.11. Mental Model Dimension 16  
  1.5.12. Readability 17  
  1.5.13. Topical Structure Analysis (TSA) 17  
  1.5.14. Topic and Comment 28  
1.6 The Purpose and Significance of the Study 19  
1.7 Limitations and Delimitations of the Study 19  
1.8 Procedure of the Study 20  
1.9 Overview of the Study 21
<table>
<thead>
<tr>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAPTER TWO: REVIEW OF RELATED LITERATURE</td>
<td></td>
</tr>
<tr>
<td>2.1. Introduction</td>
<td>27</td>
</tr>
<tr>
<td>2.2. The Concept of Coherence</td>
<td>29</td>
</tr>
<tr>
<td>2.2.1. Definitions of coherence</td>
<td>31</td>
</tr>
<tr>
<td>2.2.2. Coherence and cohesion</td>
<td>32</td>
</tr>
<tr>
<td>2.3. Coherence Relations</td>
<td>36</td>
</tr>
<tr>
<td>2.3.1. Grime’s Relations</td>
<td>36</td>
</tr>
<tr>
<td>2.3.2. Halliday and Hasan’s Relations</td>
<td>38</td>
</tr>
<tr>
<td>2.3.2.1. Grammatical Relations</td>
<td>38</td>
</tr>
<tr>
<td>2.3.2.2. Lexical Relations</td>
<td>42</td>
</tr>
<tr>
<td>2.3.3. Martin’s Relations</td>
<td>43</td>
</tr>
<tr>
<td>2.3.4. Hobb’s Taxonomy of Relations</td>
<td>44</td>
</tr>
<tr>
<td>2.3.5. Grosz and Sidner’s Theory of Relations</td>
<td>46</td>
</tr>
<tr>
<td>2.3.6. Centering Theory</td>
<td>47</td>
</tr>
<tr>
<td>2.3.7. Thompson and Mann’s Theory</td>
<td>51</td>
</tr>
<tr>
<td>2.4. Text Coherence and Text Processing Models</td>
<td>54</td>
</tr>
<tr>
<td>2.4.1. Causal Network Model</td>
<td>57</td>
</tr>
<tr>
<td>2.4.2. Construction-Integration Model</td>
<td>59</td>
</tr>
<tr>
<td>2.4.3. The Landscape Model</td>
<td>61</td>
</tr>
<tr>
<td>2.5. Text Coherence and Background Knowledge</td>
<td>64</td>
</tr>
<tr>
<td>2.6. Assessment of Text Coherence: Models and Techniques</td>
<td>66</td>
</tr>
<tr>
<td>2.6.1. Latent Semantic Analysis</td>
<td>68</td>
</tr>
<tr>
<td>2.6.2. Topical Structure Analysis</td>
<td>72</td>
</tr>
<tr>
<td>2.7. Conclusion</td>
<td>76</td>
</tr>
<tr>
<td>CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY</td>
<td></td>
</tr>
<tr>
<td>3.1. Introduction</td>
<td>81</td>
</tr>
<tr>
<td>3.2. Research Objectives</td>
<td>81</td>
</tr>
<tr>
<td>3.3. Subject Selection</td>
<td>83</td>
</tr>
<tr>
<td>3.4. Writing Task</td>
<td>85</td>
</tr>
<tr>
<td>3.4.1. Administering the Writing Task</td>
<td>86</td>
</tr>
<tr>
<td>3.4.2. Rating the Essays</td>
<td>86</td>
</tr>
<tr>
<td>3.4.3. Entering the Study Texts into the Computer</td>
<td>87</td>
</tr>
<tr>
<td>3.5. Instrumentation</td>
<td>88</td>
</tr>
</tbody>
</table>
3.5.1. Coh-Metrix

3.5.1.1. General Identification and Reference Information 89
3.5.1.2. Referential Indices 89
3.5.1.3. Coreferential Indices 90
3.5.1.4. Connectives 91
3.5.1.5. Conceptual Coherence 92
3.5.1.6. Situation Model Indices 93
3.5.1.7. Other Measures 94
3.5.1.8. Procedure 96

3.5.2. Topical Structure Analysis 97

3.6. Data Analyses 101

CHAPTER FOUR: RESEARCH RESULTS

4.1. Introduction 107

4.2. Statistics for Coh-Metrix Indices 128

4.2.1. The first Research Objective 110

4.2.1.1. Anaphor Reference 110

4.2.1.1.1 Descriptive Statistics 111
4.2.1.1.2. Inferential Statistics 112
4.2.1.1.3. Supplementary Analysis 112

4.2.1.2. Connectives 118

4.2.1.2.1. Descriptive Statistics 118
4.2.1.2.2. Inferential Statistics 120
4.2.1.2.3. Supplementary Analysis 121

4.2.2. The Second Research Objective 122

4.2.2.1. Descriptive Statistics 123
4.2.2.2. Inferential Statistics 125
4.2.2.3. Supplementary Analysis 126

4.2.3. The Third Research Objective 129

4.2.3.1. Descriptive Statistics 129
4.2.3.2. Inferential Statistics 131

4.3. Statistics for TSA 132

4.3.1. The fourth Research Objective 136
CHAPTER FIVE: CONCLUSION

5.1. Introduction
5.2. Overview of the Chapter
5.3. Research Objectives and Hypothesis
  5.3.1. The First Hypothesis
     5.3.1.1. Anaphor Reference
     5.3.1.2. Sentence Connectives
  5.3.2. The Second Hypothesis
  5.3.3. The Third Hypothesis
  5.3.4. The Fourth Hypothesis
5.4. Limitations of the Study
5.5. Pedagogical Implications and Recommendations
5.6. Suggestions for Further Research
5.7. Summary of the study

Works Cited

APPENDICES
I. Samples of the Students’ Essays
II. Sample Analysis by Coh-Metrix
III. Sample Topical Structural Analysis