

TABLE OF CONTENTS

STATEMENT OF AUTHORIZATION	i
PREFACE	ii
ACKNOWLEDGMENT	iii
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF FIGURES	xii
CHAPTER I	
INTRODUCTION	1
1.1 Background of the Research	1
1.2 Research Questions	3
1.3 Aims of the Research	4
1.4 Scope of the Research	4
1.5 Significance of the Research	4
1.6 Research Methodology	5
1.6.1 Research Design	5
1.6.2 Data Collection	5
1.6.3 Data Analysis	6
1.7 Clarification of Terms	6
1.8 Organization of Paper	7
1.9 Concluding Remark	8
CHAPTER II	
LITERATURE REVIEW	9
2.1 English for Specific Purposes	9
2.1.1 Teaching ESP	11

2.1.2 Language Issues in ESP	11
2.1.3 Skills in ESP	12
2.2 English for Engineering	12
2.2.1 The Globalization of English	13
2.2.2 Language Demands for Global Engineers	15
2.3 Needs Analysis	18
2.3.1 Target Needs	19
2.3.2 Learning Needs	21
2.3.3 Principles in Conducting Needs Analysis	25
2.4 Review of the Previous Research	26
2.5 Concluding Remark	27
CHAPTER III	
RESEARCH METHODOLOGY	28
3.1 Purposes of the Research and Research Questions	28
3.2 Population and Sample of the Research	28
3.3 Research Design	31
3.4 Data Collection Technique	33
3.4.1 Questionnaire	33
3.4.2 Interview	35
3.5 Validity and Reliability of the Instrument	37
3.5.1 Validity of Questionnaire	37
3.5.2 Reliability of the Questionnaire	42
3.5.3 Validity and Reliability of the Interview	45
3.6 Data Analysis	46
3.6.1 Analysis of Interview	46
3.6.2 Analysis of Questionnaires	46
3.7 Concluding Remark	47

CHAPTER IV

FINDINGS AND DISCUSSIONS	48
4.1 The Needs	48
4.1.1 Necessities	48
4.1.1.1 The Importance of English towards Engineering Students' Career	49
4.1.1.2 Professional English Skills for Engineers	51
4.1.1.3 The Content Areas and Text of Engineering Context	56
4.1.1.4 English Communicative Events in the Professional Engineering Work Context	60
4.1.2 Lacks	64
4.1.2.1 Descriptive Statistics of Lacks	65
4.1.2.1.1 Demographic Data of the Students	65
4.1.2.1.2 The Students' Perception on the Importance of English for Their Career	66
4.1.2.1.3 The Students' Perception on Learning English in the University	67
4.1.2.1.4 The Students' Self-Assessment of Their English Proficiency	68
4.1.2.1.5 The Job Skill the Students Prioritize to Improve	74
4.1.2.2 The Discussion of Descriptive Statistics of Lacks	75
4.2 Learning Needs	77
4.2.1 Descriptive Statistics of Learning Needs	78
4.2.1.1 The Material of English for Engineering	78
4.2.1.2 The Time of English Subject Enrollment	79
4.2.1.3 The Prioritized Time of Having an English Class	79
4.2.1.4 The Students' Learning Partner	80

4.2.1.5 The Use of Media	81
4.2.1.6 The Classroom Activities	82
4.2.2 The Discussion of Learning Needs	83
4.3 Concluding Remark	86
 CHAPTER V	
CONCLUSIONS AND SUGGESTIONS	87
5.1 Conclusions	87
5.2 Suggestions	88
 REFERENCES	89
LIST OF APPENDICES	95

LIST OF TABLES

Table 2.1. A Target Situation Analysis Framework	20
Table 2.2. A Framework for Analyzing Learning Needs	24
Table 3.1. Proportional Stratified Sample	30
Table 3.2. Categories in Developing Questionnaire Items	33
Table 3.3. Categories in Developing Semi-Structured Items in Terms of Necessities	36
Table 4.1. The Job Skill that the Students Prioritize to Improve	75

LIST OF FIGURES

Figure 4.1. Demographic Data of the Students	65
Figure 4.2. Students' Perception on the Importance of English Skill for Their Future Career	66
Figure 4.3. Students' Perception on Learning English in the University	67
Figure 4.4. The Students' Self-Assessment of Their English Proficiency	69
Figure 4.5. The Students' Self-Assessment of Listening to Monologue	70
Figure 4.6. The Students' Self-Assessment of Listening and Speaking Skill	71
Figure 4.7. The Students' Self-Assessment of Speaking Skill	72
Figure 4.8. The Students' Self-Assessment of Oral Presentation	72
Figure 4.9. The Students' Self-Assessment of Reading Skill	73
Figure 4.10. The Students' Self-Assessment of Writing Skill	74
Figure 4.11. The Material of English for Engineering	78
Figure 4.12. The Time of English Subject Enrollment	79
Figure 4.13. The Prioritized Time of Having an English Class	80
Figure 4.14. Students' Learning Partner	81
Figure 4.15. The Use of the Media	82
Figure 4.16. The Classroom Activities	83

