



**An Analysis of the English Needs of Omani Students on
Vocational and Technical Courses with Implications for
the Design of Foundation Year English Language
Programmes**

Suleiman Salem Nasser Al-Husseini

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ABSTRACT

The study provides a methodological framework to inform the design of Foundation Language Programmes (FYP) for students at Colleges of Technology in the Sultanate of Oman. It also provides a framework for embedding the Implementation Needs Analysis in the NA from the outset of the process. The methodology applied by this study is intended to be generalizable to further studies in similar TESOL/EAP contexts around the globe.

The current study contributes to future research by reviewing and synthesizing as much of the literature and highlighting the main developments in NA, presenting the prospective reader with a comprehensive overview of the theory of NA. The study itself also contributes to research informed NA by adding to the knowledge base concerning effective, contextualized, implementable needs analysis and by making the data and findings of this study available for public scrutiny and for replication in other contexts.

Six groups of participants were approached for the purpose of data collection. The needs were analysed by means of questionnaires, interviews, classroom observations and genre analysis. Data were analysed qualitatively and quantitatively. The study finds that triangulation of resources and instruments is important in order to obtain a tangible picture of the different types of needs in question. The study findings make recommendations for the FYP at the levels of purpose, learners' needs, underpinning principles, objectives and content, discusses potential implementation issues in context and draws out implications for needs analyses of such programmes more generally.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
ABSTRACT	3
TABLE OF CONTENTS	4
LIST OF TABLES	9
LIST OF FIGURES	11
ABBREVIATIONS	12
CHAPTER 1: INTRODUCING THE STUDY	13
1. 1. INTRODUCTION.....	13
1. 2. THE CONTEXT OF THE STUDY.....	13
1. 2. 1. <i>Technical Education in Oman</i>	13
1. 2. 2. <i>The Students</i>	15
1. 2. 3. <i>The Role of English in the Technical Colleges</i>	17
1. 2. 3. 1. The Position of the FYP	17
1. 2. 3. 2. The Structure of the FYP.....	18
1. 2. 3. 3. The Assessment System	19
1. 2. 3. 4. The Teaching Material.....	20
1. 2. 3. 5. The Teachers	21
1. 2. 4. <i>The Technical Programme (Post-Foundation Programme- PFP)</i>	21
1. 2. 4. 1. The Aims and Specialisation.....	21
1. 2. 4. 2. The Assessment in the Post-Foundation Programme	22
1. 2. 5. <i>The Problem of the FYP Graduate</i>	22
1. 2. 6. <i>Decision-Making in the Colleges of Technology</i>	23
1. 3. STATEMENT OF THE PROBLEM.....	23
1. 4. AIMS AND OBJECTIVES OF THE STUDY	25
1. 5. THE RESEARCH QUESTIONS	26
1. 6. THE EXTENT OF THE STUDY	27
1. 7. POTENTIAL SIGNIFICANCE OF THE STUDY	28
1. 7. 1. <i>The Study Provides a Methodological Framework for Academic Needs Analysis</i> .	28
1. 7. 2. <i>The Study Emphasises the need for prioritisation of areas of investigation in NA</i> .	28
1. 7. 3. <i>The Analyst as Insider versus Outsider</i>	29
1. 7. 4. <i>The Awareness of the Implementation Needs</i>	29
1. 7. 5. <i>Reconceptualisation of Definition of NA</i>	30
1. 7. 6. <i>A Contribution to the Literature of NA</i>	30
1. 7. 7. <i>Making NA findings publicly available</i>	31
1. 7. 8. <i>The Study Reemphasises the Role of Language Analysis in the Process of NA</i>	31
1. 7. 9. <i>The Triangulation of Genre Analysis with other Tools of NA</i>	31
1. 7. 10. <i>Contribution for a better Understanding of the Regional ESP Context</i>	32
1. 7. 11. <i>Significance for the Study's own Context</i>	33
1. 8. ORGANISATION OF THE THESIS.....	33
1. 9. CONCLUSION	34
CHAPTER 2: A REVIEW OF THE LITERATURE OF NEEDS ANALYSIS	36
2. 1. INTRODUCTION.....	36
2. 2. THE HISTORICAL DEVELOPMENT OF NEEDS ANALYSIS.....	36
2. 2. 1. <i>Pre-1960s Developments</i>	37
2. 2. 2. <i>The Conditions in which NA Started to Develop</i>	37

2. 2. 3.	<i>Factors Encouraging the Development of NA in the 1960s</i>	38
2. 2. 4.	<i>The Developments of NA in the late 1960s and the mid-1970s</i>	39
2. 2. 5.	<i>Munby's Contribution and its Consequences</i>	40
2. 2. 6.	<i>The Twenty-First Century Development in NA</i>	42
2. 3.	THE APPROACHES AND ANALYTICAL FRAMEWORKS OF NA.....	44
2. 3. 1.	<i>Register Analysis</i>	44
2. 3. 2.	<i>Discourse Analysis</i>	45
2. 3. 3.	<i>Target Situation Analysis</i>	46
2. 3. 4.	<i>Skills and Strategies Approach</i>	48
2. 3. 5.	<i>Learning-Centred Approach' Framework</i>	50
2. 3. 6.	<i>Strategies Analysis</i>	54
2. 3. 7.	<i>Means Analysis</i>	55
2. 4.	THE LITERATURE OF NA.....	61
2. 4. 1.	<i>Two Important Observations about the Literature of NA</i>	61
2. 4. 2.	<i>Discussion of the Studies</i>	62
2. 5.	DISCUSSION ON THE LITERATURE AND APPROACHES.....	67
2. 5. 1.	<i>Conceptualising NA</i>	68
2. 5. 1. 1.	<i>The Position of Language Analysis in the Post-Munby Era</i>	68
2. 5. 1. 2.	<i>New Developments in NA</i>	70
2. 5. 1. 2. 1.	<i>Implementation Needs</i>	70
2. 5. 1. 2. 2.	<i>Evaluation</i>	72
2. 5. 2.	<i>Prioritisation of Content and Methodology</i>	75
2. 5. 3.	<i>The Researcher as Insider/Outsider</i>	77
2. 6.	IMPLICATIONS OF ALL THE ABOVE FOR THE PRESENT STUDY.....	80
2. 6. 1.	<i>Necessities and Lacks</i>	82
2. 6. 2.	<i>Conflict and Inconsistency of Needs</i>	83
2. 7.	THE METHODOLOGICAL ASPECTS OF NEEDS ANALYSIS.....	85
2. 7. 1.	<i>Triangulation of Techniques and Sources</i>	85
2. 7. 2.	<i>Sources of Information</i>	87
2. 7. 3.	<i>Techniques for NA (or research tools)</i>	87
2. 7. 3. 1.	<i>Questionnaires</i>	88
2. 7. 3. 2.	<i>Interviews</i>	90
2. 7. 3. 3.	<i>Classroom Observations</i>	93
2. 7. 3. 4.	<i>Documents Analysis</i>	94
2. 8.	THEORY OF GENRE ANALYSIS APPROACH.....	95
2. 8. 1.	<i>Why Genre Analysis</i>	95
2. 8. 2.	<i>What is the Analytical Framework?</i>	96
2. 8. 3.	<i>Genre, Context and Participants?</i>	97
2. 8. 4.	<i>The Concept of Communication in Genre</i>	99
2. 8. 4. 1.	<i>What Does Communication Mean in Genre?</i>	100
2. 8. 4. 2.	<i>How Communicative Functions are Recognised?</i>	100
2. 8. 5.	<i>Lexis and Syntax in Genre</i>	103
2. 8. 5. 1.	<i>What is the Lexicon of ESP?</i>	104
2. 8. 5. 2.	<i>Indications for NA in ELT</i>	106
2. 8. 5. 3.	<i>Implications for Analysis</i>	107
2. 8. 5. 4.	<i>Syntax Analysis</i>	108
2. 8. 6.	<i>Genre Approach and Spoken Discourse Analysis</i>	112
2. 9.	DATA ANALYSIS.....	114
2. 10.	CONCLUSION.....	114
CHAPTER 3: DESIGN OF THE CURRENT STUDY		116
3. 1.	INTRODUCTION.....	116
3. 2.	SOURCES OF INFORMATION AND CHARACTERISTICS OF PARTICIPANTS.....	120
3. 2. 1.	<i>The Students and Teachers of Colleges of Technology</i>	120
3. 2. 2.	<i>The Classroom Practices</i>	122
3. 2. 3.	<i>The Technical Pedagogical Documents</i>	122
3. 3.	DATA COLLECTION INSTRUMENTS.....	123

3.3.1.	<i>Questionnaires</i>	123
3.3.2.	<i>Interviews</i>	128
3.3.3.	<i>Classroom Observation</i>	133
3.4.	DATA ANALYSIS.....	135
3.5.	ETHICAL ASPECTS OF THE STUDY	135
3.6.	THE PILOT STUDY	136
3.6.1.	<i>The Pre-Piloting of the Questionnaire</i>	136
3.6.2.	<i>The Pilot Study</i>	137
3.7.	THE DATA COLLECTION PROCESS	138
3.8.	TRUSTWORTHINESS OF THE RESEARCH	139
3.8.1.	<i>Credibility</i>	139
3.8.2.	<i>Transferability</i>	141
3.8.3.	<i>Dependability</i>	142
3.8.4.	<i>Confirmability</i>	143
3.9.	CONCLUSION	144
CHAPTER 4: ANALYSIS OF THE QUESTIONNAIRES AND THE INTERVIEWS.....		146
4.1.	INTRODUCTION.....	146
4.2.	QUESTIONNAIRE ANALYSIS.....	147
4.2.1.	<i>Background Information</i>	148
4.2.2.	<i>Purposes of Learning English in the FYP</i>	148
4.2.3.	<i>Language Uses</i>	150
4.2.3.1.	<i>Generic Language Uses</i>	151
4.2.3.2.	<i>Language Uses Specific to Business Studies</i>	154
4.2.3.3.	<i>Language Uses Specific to IT Studies</i>	155
4.2.3.4.	<i>Language Uses Specific to Engineering Studies</i>	155
4.2.4.	<i>Summary of the findings of the Questionnaire Analysis</i>	155
4.3.	INTERVIEW ANALYSIS	156
4.3.1.	<i>Analysis Methodology</i>	157
4.3.2.	<i>The Purpose(s) and Objectives of the FYP</i>	158
4.3.3.	<i>The Underpinning Principles of the FYP</i>	162
4.3.4.	<i>The Importance of the FYP for the Technical Departments</i>	163
4.3.5.	<i>The Target Language Needs as Understood by the FYP Stakeholders</i>	165
4.3.6.	<i>The Generic Language Uses (skills/subskills) of the Technical Specialisations</i> ... 168	
4.3.7.	<i>Students' and Teachers Satisfaction with the FYP</i>	170
4.3.8.	<i>Participants' Suggestions for FYP Improvement</i>	173
4.3.9.	<i>Summary of the Findings of the Interviews Analysis</i>	176
4.4.	CONCLUSION	177
CHAPTER 5: ANALYSIS OF CLASSROOM OBSERVATION AND GENRE		179
5.1.	INTRODUCTION.....	179
5.2.	ANALYSIS OF CLASSROOM OBSERVATION	180
5.2.1.	<i>Method of analysis</i>	181
5.2.2.	<i>The contexts</i>	183
5.2.3.	<i>Teaching/Learning Material</i>	185
5.2.4.	<i>Classroom Behaviour</i>	185
5.2.5.	<i>The Linguistic Features of Classroom Talk</i>	186
5.2.6.	<i>Non-verbal Behaviour and Learning Skills</i>	192
5.2.7.	<i>Interdepartmental Similarities and Differences</i>	193
5.2.8.	<i>Summary of the Findings of Classroom Observation Analysis</i>	193
5.3.	GENRE-BASED ANALYSIS OF THE TECHNICAL CORPUS.....	194
5.3.1.	<i>A Rationale for the Selection of the Corpus</i>	195
5.3.2.	<i>Genre Contexts and Participants</i>	202
5.3.3.	<i>The Communicative Functions and Layouts of the Technical Genres</i>	203
5.3.3.1.	<i>The Communicative Purposes and Layout of the Textbooks</i>	203

5.3.3.2. The Communicative Functions and Layouts of Assignments, exams, homework, workshop activities and quizzes as Technical Genres	210
5.3.4. <i>The Linguistic Features of the Genres</i>	220
5.3.4.1. Lexis.....	221
5.3.4.2. Syntax	224
5.3.5. <i>Summary of the Findings of the Corpus Analysis and Feedback for the FYP</i>	228
5.4. CONCLUSION FOR CHAPTERS 4 AND 5 (INITIAL PERSPECTIVE OF IMPLICATIONS FOR THE FYP) 230	
CHAPTER 6: DISCUSSION.....	237
6.1. INTRODUCTION	237
6.2. AN OVERVIEW OF THE IMPLEMENTATION NEEDS	237
6.3. IMPLICATIONS FOR THE UNDERPINNING PRINCIPLES, CONTENT, TIME AND ORGANISATION OF THE FYP	239
6.4. IMPLICATIONS FOR MATERIAL AND METHODOLOGY	251
6.5. IMPLICATIONS FOR STAFF DEVELOPMENT	253
6.6. IMPLICATIONS FOR ASSESSMENT	257
6.7. IMPLICATIONS FOR EVALUATION.....	261
6.8. A PROPOSED TIMETABLE FOR THE IMPLEMENTATION OF THE CHANGE	262
6.9. CONCLUSION	265
CHAPTER 7: CONCLUSION	267
7.1. INTRODUCTION	267
7.2. SUMMARY OF THE STUDY	267
7.2.1. <i>Stakeholders' dissatisfactions</i>	268
7.2.2. <i>Lack of Clarity about the Purpose, the Learners' Needs and the Course Principles</i>	269
7.2.3. <i>Needs Identification</i>	269
7.2.4. <i>Linking the Study Findings with the FYP</i>	269
7.3. RECOMMENDATION FOR FURTHER RESEARCH.....	271
7.4. WHAT I HAVE LEARNED FROM THE RESEARCH EXPERIENCE	272
7.5. CONCLUSION	273
REFERENCES	276
APPENDICES	292
APPENDIX 1 (TECHNICAL STUDENTS' QUESTIONNAIRE).....	293
APPENDIX 2 (TECHNICAL TEACHERS QUESTIONNAIRE)	297
APPENDIX 3. (SHEET FOR CLASSROOM OBSERVATION)	301
APPENDIX 4. INTERVIEWS.....	302
A. FYP HEAD OF DEPARTMENTS	302
B. HEADS OF TECHNICAL DEPARTMENTS.....	302
C. FYP STUDENTS.....	302
D. TECHNICAL STUDENTS	302
E. FYP TEACHERS:.....	303
F. TECHNICAL TEACHERS:.....	303
G. TRANSCRIPT OF INTERVIEWS:.....	303
APPENDIX 5: LIST OF THE TECHNICAL DOCUMENTS THAT WAS ANALYSED IN 5.3.....	315
APPENDIX 6: TABLE OF TECHNICAL TEACHERS AND STUDENTS' MARKING OF THE LANGUAGE USES AS USED/UNUSED.....	317
APPENDIX 7: THE DATA COLLECTION SCHEDULE.....	320
APPENDIX 8: TRANSCRIPT OF CLASSROOM TALK.....	323

APPENDIX 9: QUESTIONNAIRES AND INTERVIEWS THAT CONTAIN QUESTIONS ABOUT MOTIVATION AND LEARNING STRATEGIES.....326
APPENDIX 10: A COPY OF STUDENTS ASSIGNMENT344

LIST OF TABLES

TABLE 1: THE NUMBER OF STUDENTS WHO JOINED THE COLLEGES OF TECHNOLOGY	16
TABLE 2: THE CONTENT OF THE ENGLISH TEACHING IN THE FYP	18
TABLE 3: THE DISTRIBUTION OF MARKS OVER THE COMPONENTS OF THE EXIT EXAM.	19
TABLE 4: THE WEIGHTING OF MARKS OVER THE TWO SEMESTERS.....	20
TABLE 5: TSA AND PSA FRAMEWORKS.	53
TABLE 6: THE AIMS THE INSTRUMENTS, PARTICIPANTS, FINDINGS AND INTERPRETATIONS OF THE STUDIES.....	63
TABLE 7: THE TOPICS ABOUT WHICH THE STUDY COLLECTS INFORMATION EITHER FROM PSA AND/OR TSA.	82
TABLE 8: THE STRUCTURE OF TWO TYPES OF GENRES	98
TABLE 9: THE COMMUNICATIVE FUNCTIONS OF GENRE AND THEIR LEXICO-GRAMMATICAL FEATURES AS IDENTIFIED BY BRETT (1994)	111
TABLE 10: THE FUNCTIONS OF THE INTRODUCTION SECTIONS TO LECTURES. ADAPTED FROM THOMPSON (1994, PP 176 AND 178)	112
TABLE 11: THE LEXICO-GRAMMATICAL FEATURES OF THE FUNCTION IN THE TABLE ABOVE	113
TABLE 12: THE TYPES OF PARTICIPANTS FROM THE TECHNICAL COLLEGES	121
TABLE 13: THE NUMBERS AND DISTRIBUTION OF THE QUESTIONNAIRES PARTICIPANTS.....	124
TABLE 14: CATEGORIZATION OF THE LANGUAGE USES PRESENTED IN THE QUESTIONNAIRE.....	127
TABLE 15: THE NUMBER AND DISTRIBUTION OF INTERVIEWS.	132
TABLE 16: NUMBER AND DISTRIBUTION OF CLASSROOM OBSERVATIONS	134
TABLE 17: THE NUMBER OF QUESTIONNAIRES IN THE PILOT STUDY.....	137
TABLE 18: THE EXTENT TO WHICH THE STUDY IS CREDIBLE.	140
TABLE 19: THE EXTENT TO WHICH THE STUDY IS TRANSFERABLE	142
TABLE 20: THE EXTENT TO WHICH THE STUDY IS DEPENDABLE.....	143
TABLE 21: THE EXTENT TO WHICH THE STUDY IS CONFIRMABLE.	144
TABLE 22: THE RANKING OF PURPOSES FOR STUDYING IN THE FYP- THE FIGURES ARE IN PERCENTAGES.....	149
TABLE 23: THE LANGUAGE USES THAT ARE PERFORMED IN ALL THE THREE TECHNICAL DEPARTMENTS- IT, BUSINESS, AND ENGINEERING- AS REPORTED BY THE QUESTIONNAIRE RESPONDENTS.	153
TABLE 24: THE LANGUAGE USES THAT ARE NOT PERFORMED IN BUSINESS STUDIES EITHER IN YEAR 1 OR YEAR 2, AS REPORTED BY THE QUESTIONNAIRE RESPONDENTS.	154
TABLE 25: PURPOSE OF FYP AS PERCEIVED BY INTERVIEWEES.....	158
TABLE 26: THE PURPOSE OF THE FYP AS PERCEIVED BY EACH OF THE 4 GROUPS OF PARTICIPANTS.	159
TABLE 27: THE IDEAS THE FYP TEACHERS AND HEADS OF DEPARTMENTS HOLD ABOUT THE UNDERPINNING PRINCIPLE OF THE FYP.	163
TABLE 28: LANGUAGE USES IN TECHNICAL SPECIALIZATIONS MENTIONED BY THE INTERVIEWEES... ..	169
TABLE 29: COMMON AREAS OF WEAKNESS, AS MENTIONED BY THE INTERVIEWEES.	172
TABLE 30: SUGGESTIONS MADE BY THE INTERVIEWEES FOR THE IMPROVEMENT OF THE FYP.....	176
TABLE 31: AN EXAMPLE OF THE NOTES I TOOK DURING A CLASSROOM OBSERVATION.	182
TABLE 32: A SAMPLE OF THE TRANSCRIPT OF THE CLASSROOM TALK (AN IT CLASSROOM).	183
TABLE 33: THE COMMUNICATIVE FUNCTIONS OF THE TECHNICAL CLASSROOM TALKS.....	188
TABLE 34: GRAMMATICAL FEATURES OF TECHNICAL CLASSROOM TALK	189
TABLE 35: THE 10 MOST FREQUENT WORDS IN TECHNICAL CLASSROOM TALK	190
TABLE 36: THE TENSES FEATURES OF TECHNICAL CLASSROOM TALK	191
TABLE 37 (A): THE COMMUNICATIVE FUNCTIONS OF THE MOVES IN THE 6 TECHNICAL CHAPTERS ANALYZED IN THIS STUDY.	207
TABLE 38: THE FREQUENCY OF TENSES AND VERBS AS USED IN THE SPOKEN AND WRITTEN DISCOURSE.	210
TABLE 39 (A): THE TYPES OF QUESTIONS IN THE TECHNICAL EXAMS.....	218
TABLE 40: THE FIRST 10 MOST FREQUENT WORDS IN THE TECHNICAL CORPUS	223

TABLE 41: THE TENSES THAT ARE FOUND IN THE TECHNICAL GENRE.....	225
TABLE 42: THE USES OF PASSIVE VOICE IN THE TECHNICAL GENRE.....	226
TABLE 43: THE GRAMMATICAL FEATURES THAT ARE USED IN THE TECHNICAL GENRE.....	227
TABLE 44: SYNTHESIS OF THE LANGUAGE SKILLS, TEXTS, COMMUNICATIVE FUNCTIONS, GRAMMAR AND VOCABULARY THAT ARE USED IN IT, ENGINEERING AND BUSINESS AS FOUND OUT BY QUESTIONNAIRE, INTERVIEWS, GENRE ANALYSIS AND CLASSROOM OBSERVATION.	235
TABLE 45: TEACHING OBJECTIVES FOR FYP TERM 1.....	245
TABLE 46: A PROPOSED TIMETABLE FOR FYP STUDENTS INDUCTION INTO THE TECHNICAL COURSES.	247
TABLE 47: COURSE OBJECTIVES FOR FYP TERM 2.....	248
TABLE 48: COURSE OBJECTIVES FOR FYP TERM 3.....	250
TABLE 49: THE AREAS THE FYP TEACHERS NEED IN-SERVICE TRAINING ON.....	255
TABLE 50 : ASSESSMENT BATTERY OF FYP AND THE DISTRIBUTION OF WEIGHT OVER COMPONENTS AND TERMS.....	259
TABLE 51: TIMETABLE FOR IMPLEMENTING THE CHANGE.....	263

LIST OF FIGURES

FIGURE 1: THE POSITION OF THE COLLEGES OF TECHNOLOGY IN THE EDUCATION SYSTEM IN OMAN.	15
FIGURE 2: THE HISTORICAL DEVELOPMENT OF NA.....	43
FIGURE 3: THE CLASSROOM CULTURE SURROUNDED BY THE WIDER CULTURES, AS PROPOSED BY MEANS ANALYSIS APPROACH	57
FIGURE 4: TWO LEVELS OF FACTORS WHICH ARE IN ELT CONTEXT AND WHICH MAY INFLUENCE NEW PROJECTS- ADAPTED FORM HOLLIDAY (1994, P 130).....	58
FIGURE 5: THE RELATIONSHIP BETWEEN MEANS ANALYSIS, CURRICULUM DESIGN AND PROJECT MANAGEMENT, AS PROPOSED BY MA. THE LINES REPRESENT THE FLOW OF INFORMATION.....	60
FIGURE 6: THE CONFIGURATION OF EVALUATION IN THE PROCESS OF NA AND OTHER COMPONENTS OF COURSE DESIGN	73
FIGURE 7: THE COMPONENTS OF NA	75
FIGURE 8: THE TWO-FACET TASK OF AN OUTSIDER ANALYST IN A FOREIGN CONTEXT	78
FIGURE 9: THE TASK OF AN INSIDER ANALYST.....	78
FIGURE 10: AN ILLUSTRATION OF THE IDEA OF TRIANGULATION IN THIS STUDY.	86
FIGURE 11: SUMMARY OF THE STUDY TOPIC, DATA, INSTRUMENTS AND OUTCOME.	119
FIGURE 12: THE NUMBER AND PERCENTAGE OF THE TECHNICAL STUDENTS WHO PARTICIPATED IN THE QUESTIONNAIRE COMPARED TO THE WHOLE POPULATION OF TECHNICAL STUDENTS IN MUSCAT AND IBRA COLLEGES OF TECHNOLOGY.....	124
FIGURE 13: THE NUMBER OF STUDENTS FROM EACH YEAR AND SPECIALISATION WHO PARTICIPATED IN THE QUESTIONNAIRE.	125
FIGURE 14: HOW INTERVIEWING EACH GROUP CASCADES IN THE 7 INTERVIEW QUESTIONS.....	129
FIGURE 15: TOOLS FOR ENSURING QUALITY IN QUALITATIVE AND QUANTITATIVE RESEARCH.....	139
FIGURE 16: THE RANKING OF THE PURPOSES OF STUDYING ENGLISH IN THE FYP ACCORDING TO YEAR 1 AND YEAR 2 TECHNICAL STUDENTS AND TECHNICAL TEACHERS. THE FIGURES ARE IN PERCENTAGES.....	149
FIGURE 17: AN EXAMPLE OF ASSIGNMENT GRADING SCHEME.....	198
FIGURE 18: AN EXAMPLE OF A QUIZ PAPER.	199
FIGURE 19: AN EXAMPLE OF A HOMEWORK PAPER.	200
FIGURE 20: A SAMPLE OF A WORKSHOP ACTIVITY PAPER.	201
FIGURE 21: THE COMMUNICATIVE PURPOSES OF MOVES AND SUB-MOVES IN AN ASSIGNMENT.....	212
FIGURE 22: THE COMMUNICATIVE PURPOSES OF MOVES AND SUB-MOVES OF A BUSINESS LETTER AND ORDER FORM.	213
FIGURE 23: THE FIVE CATEGORIES OF THE FYP LEARNERS' TARGET LANGUAGE NEEDS.....	234
FIGURE 24: A PROPOSAL FOR THE LAYOUT AND CONTENT OF THE FYP.	242
FIGURE 25: DISTRIBUTION OF THE STUDENTS' RESULTS IN THE PLACEMENT TEST IN IBRA COLLEGE FOR THE ACADEMIC YEAR 2002/03.....	243
FIGURE 26: THE DISTRIBUTION OF THE CONTENT OF TERM 2.....	246
FIGURE 27: THE DISTRIBUTION OF THE CONTENT FOR TERM 3.....	249

ABBREVIATIONS

CLT	Communicative Language Teaching
CNP	Communicative Needs Processor
EAP	English for Academic Purposes
EGAP	English for General Academic Purposes
ESAP	English for Specific Academic Purposes
ESP	English for Specific Purposes
ELT	English Language Teaching
ESL	English as a Second Language
EFL	English as a Foreign Language
FYP	Foundation Year Programme
LA	Language Awareness
LNA	Learning Needs Analysis
LT	Language Teaching
MA	Means Analysis
NA	Needs Analysis
PFYP	Post Foundation Year Programme
PSA	Present Situation Analysis
SFG	Systematic Functional Grammar
SFL	Systematic Functional Linguistics
SQU	Sultan Qaboos University
TES/FL	Teaching English as a Second/Foreign Language
TSA	Target Situation Analysis

Chapter 1: INTRODUCING THE STUDY

1. 1. Introduction

This chapter aims at setting the scene for the study by introducing the research problem and its context. A discussion of the context of the study, the Colleges of Technology in Oman, follows in 1. 2. A statement of the problem is presented in 1. 3. The aims and objectives of the study are set down in 1. 4. The research questions are provided in 1. 5. This is followed by a discussion of the scope of the study in 1. 6 and its potential significance in 1. 7. The organisation of the study is discussed in 1. 8. Section 1. 9 concludes chapter.

1. 2. The Context of the Study

This section aims at providing background information about the context in which the study takes place. It describes the Foundation Year Programme (FYP) as it exists today in the context of technical education in Oman. The fact that the teaching of English in the Colleges of Technology has not previously been studied impacts on this section. Because of the lack of previous studies, I have had to draw on my own experience as a member staff of Ibra College and on the official documents.

1. 2. 1. Technical Education in Oman

The Omani government pays considerable attention to technical/vocational education in the Sultanate. This concern began in 1972 when the responsibility for vocational training was assigned to the Ministry of Social Affairs and Labour. During the fourth developmental plan (1991-1995) the Government evaluated vocational education and drew up some plans for improving it. The following plan was formulated:

- Linking vocational education to manpower plans in the country, so that vocational education works according to the manpower needs of the national economy.
- Laying out plans for substituting expatriates with Omanis.
- Improving vocational education and renewing its curriculum in order to enable it to provide the skilled manpower needed by the national economy.

Accordingly, two Royal Decrees were issued. Royal Decree number (31/91) declared the establishment of 'the High Committee for Vocational Training and Labour'. The function

of this committee was to draw up vocational training plans which aim basically to fulfil the needs of the local market for qualified workers. Royal Degree number (115/91) declared the setting up of 'the Authority of Vocational Training'. The function of this authority was to put the vocational plans into practice and run and supervise the vocational institutions.

After that, in 1991 five Technical Industrial Colleges (in 2002 the name was changed to "Colleges of Technology") were launched in five different places in the sultanate. The aim of these colleges is to train skilled technicians who are able to occupy posts in the local market. The technical programme in the colleges includes Business Studies (accounting and management), Information Technology, Engineering (Electrical, Electronic and Mechanical), construction, and laboratory sciences. The programme lasts for two years.

The Colleges of Technology are one of the choices, though not the first, for students who want to continue their post-secondary studies. The Sultan Qaboos University (SQU) comes at the top of students' priorities, yet the competition is very tough so a very small number of secondary school graduates are admitted. After the University come the Colleges of Education and Institutes of Health. Some students go abroad, either sponsored by the Government (Ministry of Higher Education) or independently. The Colleges of Technology recruit the students who miss the opportunities to go to those places (SQU, Colleges of Education, Institutes of Health etc) and who cannot secure employment in the Government or the private sector. The students are not entirely happy with the status of the colleges, a matter that negatively affects their attitudes. Learners' attitude and motivation however is not the focus of this study. The position of the Colleges of Technology in the Education system in Oman is shown in Figure 1 below.

Besides the Technical Industrial Colleges, vocational education in Oman involves two more systems. First, the Training Institutes which recruit pre-secondary school leavers who did not complete their public education for any reason. These institutes also recruit illiterate adults. Such students are involved in short-term vocational courses which acquaint them with the basics of vocational skills. Second, the Ministry supervises and finances the training of Omanis in private technical institutes, which provide short courses acquainting the students with the basic skills that they may need to obtain jobs in the private sector as semi-skilled technicians. The present study does not attempt to include the following two

systems: Training Institutes and Private Institutes. The study limits its scope to studying the case of the Colleges of Technology only.

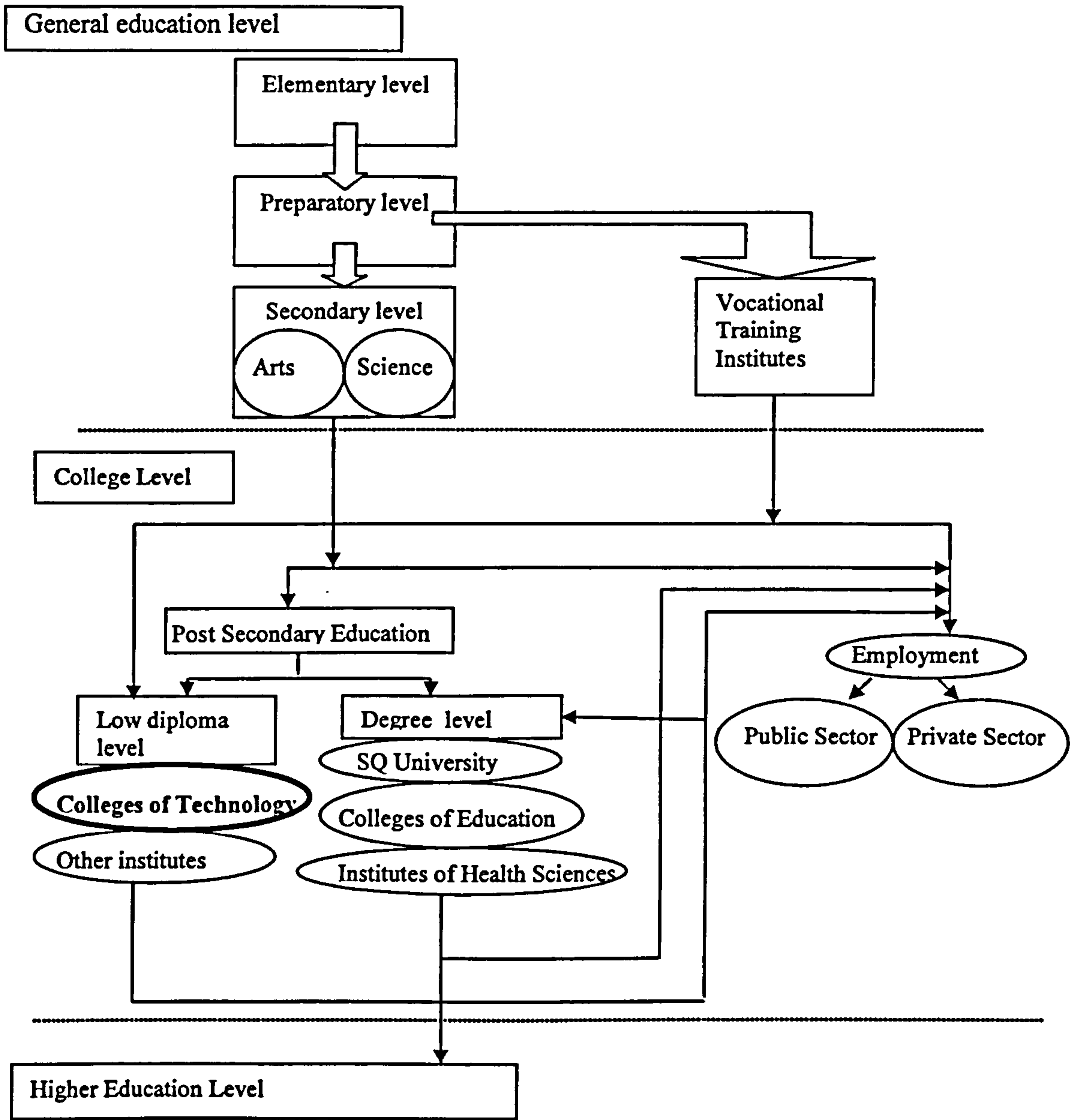


Figure 1: The position of the Colleges of Technology in the education system in Oman.

1. 2. 2. The Students

The colleges recruit secondary school graduates (aged between 16 and 18 years). They provided places for 10% of all the secondary school graduates between 1995 and 1999. The number of students who join the colleges increases every year, as shown in Table 1 below.

Table 1: The number of students who joined the Colleges of Technology between 1993-94 and 2000-01.

The academic year	Number of students
1993-94	679
1994-95	1569
1995-96	1925
1996-97	1764
1997-98	2272
1998-99	2070
1999-2000	1865
2000-2001	2000

The secondary school is a continuation of public education which is divided currently into three stages: the Elementary stage (6 years), the Preparatory stage (3 years) and the Secondary stage (3 years). In their first year, all Secondary students study the same subjects. In the second year, the students are divided into two sections: the Arts Section and the Science Section. The students have the right to choose according to their interests and abilities which section to join. Students of both sections study Arts and Science, but Arts students study a higher portion of arts subjects than Science students and Science students study a higher portion of science subjects than Arts students. So, the difference between the two sections is determined by the amount of the subjects each group studies.

Regarding English teaching, English is taught as a foreign language, which is scarcely used in everyday life. Arabic is the official language in the Government Offices and Omanis use their native language (Arabic) among themselves. Only expatriates who do not speak Arabic use English. Even some non-Arabic speaking expatriates try to learn Arabic in order to communicate with Omanis. Doctors at hospitals, for example, try to speak in Arabic with their Omani patients, because the latter do not speak English. This environmental factor makes the students assume that English is not an important issue in their educational life so they give it less attention. The English syllabus is currently almost the same in both Science and Arts. This means the same objectives, textbooks, teaching aids, number of hours per week, exams and teachers. Within the same textbooks there are some texts which are designed specifically for either Science students or Arts students. For instance, Arts students may be provided with a text which talks about traditional pottery making in Oman.

On the other hand, Science students may be provided with a text which talks about astronomy. These selected texts, I think, could be regarded as the only difference in the English syllabuses of both sections.

Concerning the English proficiency of secondary school graduates, these students graduate with a very low competence in English, for one reason or another. Therefore, all the post-secondary educational institutes in which English is the medium of instruction such as SQU, Institutes of Nursing, Colleges of Technology etc place their newcomers in English language teaching programmes before they start the academic course. For those secondary graduates who join the Colleges of Technology, a special preliminary English course named the Foundation Year Programme (FYP) is set in order to teach them the required English. It is this course which is the focus of this study. A further discussion of the role of English in the Colleges of Technology is provided below.

1. 2. 3. The Role of English in the Technical Colleges

Secondary School graduates join the Colleges of Technology every year to study one of the technical courses provided by these colleges. The newcomers are supposed to join the technical departments on their arrival, but because the medium of instruction is English and their language proficiency more often is inadequate they have to study English first.

1. 2. 3. 1. The Position of the FYP

The newcomers' proficiency in English is determined by means of a placement test, which they sit on their arrival. The placement test examines the students' writing and reading skills, but it does not include speaking and listening elements. Ignoring the students' oral skills raises a question about the test ability in providing a valid picture about the newcomers' actual English competence. However, those students who perform adequately in the placement test, according to the criteria set by the decision-makers, join the technical studies course directly. On the other hand, those whose language proficiency is inadequate to pursue technical training are placed in the FYP. The FYP is an intensive course of English. Although, the FYP students also study the basics of Maths (3 hours per week) and Information Technology (IT) (3 hours per week), English is the main component of the programme. The course focuses on the learners' language skills: listening, speaking, reading and writing.

English is also taught to the Post Foundation students during their technical training for three teaching hours of ESP weekly. They are taught by the same language teachers who teach the FYP students. This is supposed to help the students understand the language of each technical specialisation whether it be IT, Business or Engineering. The ELT in the PFYP is not the focus of this study.

1. 2. 3. 2. The Structure of the FYP

The academic year starts at the end of September. This is almost one month after the other educational institutions in the country such as the SQU, Colleges of Education, and Institute of Health etc. That is because the Colleges of Technology are the last choice for secondary graduates to go to. Students who are not accepted in any of those places apply to the Colleges of Technology.

The FYP is divided into two semesters; each lasts 19 weeks with a mid-year holiday between them. The FYP does not have a written syllabus. The teaching material (textbooks, audio and video cassettes), the number of teaching hours, the number and dates of quizzes, the dates and components of exams are decided according to the beliefs and perceptions of a committee consisting of the heads of the FYP departments in the five colleges. Table 2 below illustrates the components of the English element of the FYP.

Table 2: The content of the English teaching in the FYP

The subject	Hours (per week)
General English	8
Writing	3
Reading	3
Listening & Speaking	2
Communication key Skills	2
Study Skills	1

The phrase 'General English' in the table does not mean General English in its common sense as a contrast to English for a Specific Purpose or English for an Academic Purpose, for example. In this context it is used to refer to a group of classes in which English is taught through a textbook which contains listening, reading, writing and speaking tasks all together. So, within one class the students may follow a lesson in reading and another one in writing and so on. This is different from the other writing, reading and listening and speaking classes, that are mentioned in Table 2, where the focus is on one skill only. In the

last two years “Work in progress” is used in the first semester and “Headway” is used in the second. In the ‘Writing’ class the students are taught writing only. Similarly with ‘Reading’ and ‘Listening and Speaking’, the students are taught either reading or listening and speaking. ‘Communication Skills’ concerns the skills that the students need in their technical studies. Such skills may include gathering data for assignments, presentation delivery, participating in a discussion etc. ‘Study skills’ concentrates on enhancing the students’ self study skill. The students work independently in either the self-access centre or the library, under the guidance of a tutor.

1. 2. 3. 3. The Assessment System

The battery of assessment in the FYP includes different assessment methods e.g. the quiz, mid-semester exam, end of semester exam, end of foundation year exam (Exit Exam) and an assignment. Students are assessed in the first semester by two quizzes, and the end of semester exam (or mid-year exam). In the second semester the assessment process includes two quizzes, the mid-semester exam, an assignment, and the end of year exam (the Exit Exam).

The Exit Exam is the main instrument. It is worth 70% of the total mark. It takes place at the end of the FYP. The test is designed to test the learner’s language skills e.g. writing, reading, speaking and listening, and sub-skills such as skimming, scanning, writing reports, formal letters, listening for specific information and speaking about the content of a picture. This content is believed to match the course content which was provided in Table 2 above. The distribution of the marks over the components of the Exit Exam are as illustrated in Table 3 below:

Table 3: The distribution of marks over the components of the Exit Exam.

Skill	Number of questions	Marks distribution	Total Mark
Listening	3	Q.1. 5 Marks Q.2. 10 Marks Q.3. 10 Marks	25
Reading	2 (1 Scanning 1 Comprehension)	10 Marks 20 Marks	30
Writing	2	10 Marks each	20
Oral	5	5 Marks each	25
Total Marks			100

Because the decision-makers believe that the assessment in the second term should test learners' achievement throughout the year, the second term is given more weight compared to the assessment battery in the first term. Only 10% of a student's mark in the first semester is added to his/her final mark. 90% comes from his/her mark in the second semester. Table 4 below shows the distribution of the weighting of the marks over the two semesters.

Table 4: The weighting of marks over the two semesters.

Semester	Weight of marks
1	10% of all the quizzes and exams
2	<ul style="list-style-type: none"> • Quizzes & mid-semester exam 10% • Assignment 10% • Exit Exam 70%
Total	100%

The decision-makers decided that 50% is a cut-off point. Students who obtain 50% of the total mark are considered eligible to move to the technical area the following year. On the other hand, those who fail to get 50% of the total mark are considered ineligible to proceed to the technical study. They are given a chance to resit the exam in September of the next academic year. If they achieve the required mark then they join the technical education course, otherwise they are expelled. This shows how important the FYP is. Actually, it determines the learners' career in the college. This fact becomes very clear when one consults the Ministry records which state that the dropout percentage in the foundation programme is 25% and the main reason behind this is failing the language exams. On the other hand, the dropout in the technical area is as low as 3%.

1. 2. 3. 4. The Teaching Material

By material I mean everything that is used to help the teachers to teach English in the Colleges of Technology. This may include textbooks, cassettes, handouts etc. However, textbooks are the main teaching tool. There are textbooks for writing classes, reading classes, listening classes and the general English class. Every student is provided with a copy of these textbooks. The Heads of English Departments in the five colleges decide during their occasional meetings on the textbooks to be used. Most often there is one textbook for each language class. The teachers have to use the prescribed textbooks. There

are some problems associated with such textbooks. Firstly, all of them are written in Europe and contain some topics which are considered culturally unsuitable for the Omani context. Therefore, teachers have to exclude those unwanted topics. Some tasks, in addition, are very boring or they are above or below the students' actual proficiency levels.

The other teaching materials e.g. audio-cassettes and video-cassettes, are also bought from the publishers. They also have problems similar to those encountered with the textbooks. The colleges have a good selection of self-study materials such as audio/video cassettes, CDs, reading cards, readers, magazines and books, which are located in self-access centres.

1. 2. 3. 5. The Teachers

The language teachers in the Colleges of Technology come from different backgrounds. There are Omani and international teachers, Arabic speakers and non-Arabic speakers, English natives and non-natives, females and males. Some of these teachers are BA holders, some MA holders and a few have PhDs.

1. 2. 4. The Technical Programme (Post-Foundation Programme- PFP)

This discussion provides a background information about the Technical programme. It is the academic course the students join after finishing the language course in the FYP.

1. 2. 4. 1. The Aims and Specialisation

The students who pass the exams in the FYP move to the Technical Programme (Post-Foundation Programme :PFP). The PFP is a technical course. The goals of this programme are: (1) to educate the Omanis to become skilled technicians in different technical areas, so they can occupy posts in the Government Sector, the Private Sector and/or self-employment; (2) to prepare the students to join further education in their areas of specialisation (either inside or outside the country). The PFP lasts for two academic years and is divided into four semesters, each 19 weeks long. English is the official medium of instruction in the PFP including the teaching materials, the references, the assignments and the exams.

There are five technical courses the students can choose from, as follow:

1. Engineering; there are two sub-fields to specialise in:
 - Mechanical
 - Electrical.

Only male students who were in the Science Section in the secondary schooling are eligible to join this field.

2. Business Studies; there are three sub-fields to choose from:

- Accounting.
- Marketing.
- Administration Management.

Male students of either the Science or the Arts Sections and female students of the Science Section are eligible to join this field.

3. Information Technology; there are four sub-fields to choose from

- Multi-media.
- Networking.
- Programming.

All students are eligible to join this field.

4. Construction. Only two colleges provide this service at the moment: Muscat College of Technology and Salalah College of Technology. All the male students are eligible to join this field.

5. School Laboratory Technician. This is run according to the needs of the Ministry of Education and provided by Muscat CT only.

1. 2. 4. 2. The Assessment in the Post-Foundation Programme

The assessment battery in the Post-Foundation Programme includes the mid-semester exam (20%), the end of semester exam (50%) and classroom work (30%). The classroom work consists of assignments, quizzes and projects.

1. 2. 5. The Problem of the FYP Graduate

The most urgent problem is that the students' attainment in the FYP is very low. There are hundreds of students who resit the exam every year. Some of them are expelled after failing in the resit. Even those who move to the technical area face a lot of difficulties because of language deficiency. Many such students at the time of employment cannot get a job because of their weakness in English. The Ministry receives many complaints from the employing companies, claiming that the colleges' graduates are weak in English and not skilful in their specialisation. So, there is an urgent need to make the FYP capable of providing its students with an efficient language competence. The current study responds to this requirement. This is explained further in the statement of the problem below.

1. 2. 6. Decision-Making in the Colleges of Technology

The Colleges of Technology belong to an establishment where management is centralised. In such an environment important decisions, for example, those decisions about the course content, organisation and duration, teacher and student recruitment, finance etc. are centrally taken by the highest rank of administrators. At the top of this hierarchy come the Minister of Manpower and Technical Education and the Minister Undersecretary for Technical Education. These are located at the headquarters in Muscat. This central top-down decision-making has an implication for the present study when it comes to the implementation of the findings and recommendations. None of the study recommendations can be implemented unless first approved and agreed on by the administrators at the top of the administrative hierarchy. This point will further be discussed in the literature review chapter and the discussion chapters themselves (see 2. 5. 3. and 6. 2.).

1. 3. Statement of the Problem

As a result of the improvement plans that were pointed out in 1. 2. 1. , English was chosen to be the medium of instruction in the five technical colleges affected by the new project. Claims about the low standards of the graduates from the preliminary English course (FYP) which was set to teach the newcomers the English language that they would need in their technical studies, have frequently been made inside and outside the colleges. The technical teachers complained that the FYP graduates were unable to cope with the language demands of the technical studies. Employers, also, maintained that the colleges graduates lacked the communicative skills which were needed in the workplace.

The current study undertakes a language needs analysis. Its ultimate objective is to examine the FYP learners' language needs in technical studies in order to provide data which might help to make the FYP more capable of producing students with efficient and/or appropriate language skills. Analysing learners' language needs is recommended in English language teaching (ELT), in general, and teaching English for Academic Purposes in particular. *"It is now widely accepted as a principle of programme design that needs analysis is a vital prerequisite to the specification of language learning objectives"* (Brindley, 1989 p 63). Practitioners are keen to understand learners' needs (Berwick, 1989) and how to facilitate them in the course design and teaching process. This attitude towards understanding learners' needs is widely accepted and relatively true in English for Specific Purposes

(ESP), English for Academic Purposes (EAP) and adult language programmes such as the FYP in the Colleges of Technology, Oman. ESP is an approach to English language teaching. It is part of the field of English language education and the teaching of English as a second/foreign language. EAP is a branch of ESP where learners require English for academic study thus; EAP courses usually have study skills components. The content of ESP/EAP programmes is based on the learners' reasons for undertaking the programme (Hutchinson and Waters, 1987). *"Therefore, ESP courses are based on needs analysis, a feature which many see as the definitive [characteristic] of ESP courses"* (Langroudi, 1999 p 49). Robinson (1991, p 4) points out *"whereas needs analysis formally focused rather exclusively on target or end-of-course requirements, now it is used to take account of students' initial needs, including learning needs"*. This means that needs can be seen in terms of the language the learners will have to produce in a particular communicative situation and in terms of a number of affective, cognitive and social factors, that individual learner needs in the learning situation and that planners/designers need to consider (Kormos *et al*, 2002). Hutchinson and Waters (1987) refer to these two categories of needs as target needs and learning needs. Target needs consist of the necessities (what the learner has to know in order to function effectively in the target situation), the lacks (the gap between target and existing proficiency of the learner) and the wants (the learners' perception of their needs). Learning needs is a term used to cover a number of factors found in the particular language-learning context and connected to the process of language learning such as attitudes, motivation, awareness, personality, learning styles and strategies, social background etc (Kormos *et al*, 2002 and Hutchinson and Waters, 1987). The present study takes this variation into consideration by involving both the learners needs' in the FYP (the language learning needs) and their needs in the academic courses (target needs). Yet, as will be explained in the next chapter, there is a need for prioritisation, as it is beyond the capability of a single study such as the present one to examine all the issues found in the literature of NA.

There are many studies which focus on such a topic. Studies which have looked at learners' needs within a broadly similar context (the Arab world) have been of particular interest, although I have also of course consulted others. Some that have been of most interest to this study include, for example, Qotbah (1990) who conducted PhD research to analyse students' language needs at the English Language Teaching Unit (ELTU), University of Qatar, in order to remedy the low standards of English of the students and graduates of the

University. Similar problems were dealt with by Kelliny (1994) in the College of Health Sciences in Bahrain; Al-Attili (1986) in the Kuwait Business Institute; Langroudi (1999) in a group of universities in Iran; Sardi (1997) in technical universities in Hungary and Remache (1993) in Algerian ESP centres. The current study draws on these researchers particularly in terms of methodology. It also adds to them by spreading the focus on more than one technical discipline, whereas the studies mentioned above typically focus on a single discipline.

1. 4. Aims and Objectives of the Study

The overall aim of the study is two fold. The first aim is to contribute to the development of theorising and practice in Needs Analysis in English language education in general. To make this aim, the study:

1. reviews the literature of needs analysis in order to highlight the main developments in NA.
2. constructs a definition of NA that takes the new developments in the field into account.
3. provides an analytical framework that can be applied in similar contexts.
4. explores the means of prioritising content and methodology in any NA process.
5. demonstrates how a strategy for subsequent curriculum development and change implementation can be developed.

The second is a context-specific aim. It is to analyse the language needs of the students of the Colleges of Technology, in Oman, in both the language course (FYP) and technical studies. This objective is divided into five components, as follows:

1. To identify the nature and extent of the discrepancy between the current teaching/learning situation in the FYP and the learners' language needs in technical studies.
2. To identify the generic language/learning skills and knowledge needed for the technical departments.
3. To identify the differences in the language needs among the different academic specialisations.
4. To make recommendations for the improvement of the FYP in terms of its learners' language skills. These recommendations should be derived from the results of

analysing the students' language needs and identifying the key/core skills in the academic departments.

5. to provide an implementation strategy for the FYP in its context.

The first set of objectives is necessary to accomplish the second set. In other words, to be able to investigate the practical setting, the study has to develop an understanding of the theory of needs analysis. Findings from the investigation in the practical setting then feed back to further develop the theory.

The study deals with two analytical contexts: the FYP which requires a 'present situation analysis' (Hutchinson and Waters 1987, Robinson, 1991 and Jordan, 1997) and the technical departments which require a 'target situation analysis' (Hutchinson and Waters 1987, Robinson, 1991 and Jordan, 1997). In the target situation analysis, the focus is on students' necessities, although their wants are not neglected. The wants are addressed in terms of the language uses that students think that they need to acquire/perform when they join the technical studies. Necessities, on the other hand, refer to the actual language uses and skills that students need to acquire/perform in the target situation. In the present situation analysis, the learners' lacks are addressed. A full discussion of such phenomena will be provided in the review of needs analysis in chapter 2. The implementation of such a literature for the current study is discussed in Chapters 3, 4 and 5.

1. 5. The Research Questions

The study presents six research questions. The content of the research questions is built on the description of the context of the study, which is indicated in (1. 2 above), the aims and objectives of the study discussed in 1. 4 above and the theoretical perspective on needs analysis, which is presented in chapter 2. It is argued in chapter two that the needs analysis is a process (Graves, 2000) which may encompass more than one phenomenon. Thus, the research questions address the stakeholders (learners and teachers), the present situation, the target situation, and possible ways of bridging the gap between present practice and would be practice.

The six research questions are presented as follows:

1. What are the learners' purposes in studying English in the FYP as perceived by:

- a) FYP students,
- b) FYP teachers,
- c) Technical Department students,
- d) Technical Department teachers?

Are there significant differences in their perceptions? And ultimately what should the purpose of the FYP be?

2. What are the language needs of the students in Technical Departments: IT, Business and Engineering?
3. To what extent do the language needs differ, if they differ at all, among the different technical studies i.e. Engineering, Information Technology and Business?
4. What are the common language generic skills and knowledge among the technical studies?
5. To what extent do the skills and sub-skills developed in the FYP, match those needed in the technical departments?
6. How can the findings of the above questions be linked back to the design of the FYP, in an ongoing way?

It is argued in chapter two that the needs analysis is a process (Graves, 2000) which may encompass more than one phenomenon. Thus, the research questions address the stakeholders (learners and teachers), the present situation, the target situation, and possible ways of bridging the gap between present practices and would be practice. Question 1 gathers information about the learners themselves (Dudley-Evans and St John, 1998) - specifically their purpose in studying English. This covers the present and target situations. Questions 2 to 5 look the language use in the target situations (technical courses) and provide further information which helps in identifying and stating the students' necessities (Hutchinson and Waters, 1987) or objective needs (Brindley, 1985). Question six looks for ways of applying the outcome of all the previous questions to improve and develop the FYP in order to be more effective in meeting the demands of the Technical studies.

1. 6. The Extent of the Study

The current study is limited to the examination of the Language Needs of the students in the Colleges of Technology in the Sultanate of Oman studying in the three technical

specialisations i.e. IT. Business and Engineering common to all the colleges namely, Muscat, Ibra, Nizwa, Salalah and Almasana. Thus, the study is not concerned with other needs such as pre-college needs; learners' needs for academic subjects, such as maths; computer etc; financial needs, physical needs etc. I do not underestimate the importance of such needs, but note that studying all these things would require time and effort beyond what is available for the current study. I presume, also, that some of these needs (e.g. financial needs) have already been well-considered by the planners of the programme. The study is not concerned with the teaching of English in the colleges Post-FYP or learners' language needs in their work places. Other fields which are unique to either Muscat College or Salalah College, such as Laboratory studies and Construction, are not included in this study. The focus is thus clearly limited to the learners' language needs.

1. 7. Potential Significance of the Study

This study is significant in different ways. Each of these is discussed below.

1. 7. 1. The Study Provides a Methodological Framework for Academic Needs Analysis

The study may have potential significance for needs analysis in TESOL in general and EAP in particular. It provides a methodological framework for analysing learners' academic needs for the purpose of constructing learning objectives and suggesting content, material and methodology for Foundation English Language Programmes. The methodology applied by this study may be generalizable to further studies in similar contexts around the globe.

1. 7. 2. The Study Emphasises the need for prioritisation of areas of investigation in NA

The present study provides an example of the need to prioritise the focus of any NA. Needs Analysis theory offers a very wide range of areas that might be studied. It is likely to be impossible (practically) or unnecessary to study them all. So, one must prioritise. For example, due to my insider knowledge, I felt confident that in this context non-pedagogical administrative factors such as finance, resources e.g. books, self-learning material etc would not need investigation in such a large-scale study because, if the recommendations were accepted by the decision-makers their implementation would be properly addressed by the administration personnel in the institution. Therefore, the current study focused on pedagogic/linguistic phenomena rather than the administrative ones.

1. 7. 3. The Analyst as Insider versus Outsider

This study is also significant in that it is carried out by an analyst/researcher who is an insider rather than an outsider. The insider analyst/researcher's task is unlike that of the outsider's. In the third world projects discussed in, for example, Holliday (1994), Holliday and Cooke (1982), Waters and Vilches (2001), Wedell (2000 & 2003), and Coleman (1996) the analyst is typically an outsider. In such case the analysts' task, then, is two faceted: firstly familiarisation (Waters and Vilches, 2001) in order to become adequately accustomed to the project/innovation environment/situation; and then secondly the actual task of course development. The insider analyst/researcher, for example the writer in this study, will on the other hand have gained a significant degree of familiarisation during his pre-research employment in the institution in question. As a member of both the institutional culture and the wider culture within which the institution is situated he or she will also be familiar with many of what Holliday (1994) called 'deep action phenomena', the obscure, deep, real life characteristics of the target institution that a foreigner needs to know about and that can not be acquired at the formal, official, surface action level. Understanding such phenomena requires integration, which has to be worked for by an expatriate change agent, yet is developed naturally by a member of the local community through day to day experience and personal relationship with the other members of the teaching, administration staff and students. Having access to such phenomena allows the insider researcher to understand the hidden factors that may need to be addressed or that may handicap the implementation of the change.

1. 7. 4. The Awareness of the Implementation Needs.

The study is significant in raising awareness of the implementation issues. Much of the literature, particularly Waters and Vilches (2001), Holliday (1994), Wedell (2003) talk about top-down imposed educational change, in which decisions about the change are taken by the decision-makers at the top of the educational hierarchy. This study reports a different and relatively unusual case in the NA literature. The researcher is an insider to the end-users (e.g. teachers, administrators and students in the Colleges of Technology, Oman), initially acquainted with the deep and surface realities of the Colleges of Technology and FYP and it is the end-users who have encouraged me to carry out the research. The potential innovation is coming from them. On the other hand, I am an outsider to the decision-makers at the top of the hierarchy who will ultimately determine whether any innovation is adopted, and perhaps to the technical areas. My role in regard to the needed improvement is to investigate the case to find out drawbacks to the current situation and

provide recommendations for change. I have carried out the investigation relying on my background knowledge as an insider. When it comes to the implementation of the recommendations, I will become an outsider to both the decision makers at the top of the hierarchy and teachers/students/administrators in the implementation field, the Colleges of Technology, since the decisions for implementation will be taken by the administration not by the teachers themselves. It is so because in a top-down, establishment like the Colleges of Technology, the decisions are taken at the top. Therefore, the essence of Waters and Vilches' (2001) foundation-building and Potential-realising components of implementation model has to be aimed at in this study at two levels: at the level of the decision makers, and at the level of teachers in order to make it accepted by both of these two groups of people.

1. 7. 5. Reconceptualisation of Definition of NA

The study proposes a definition for NA in which the new developments in the area are considered. This study argues that the available NA approaches look at NA each from its own perspective. What is needed then is a synthesis which brings the different components of NA together in a systematic way. From my point of view, the traditional classification of NA into the Present Situation Analysis and the Target Situation Analysis is inadequate. Likewise, the Learning-Centred approach and the Means Analysis do not provide a precise picture of NA. The study looks at NA as a process encompassing: linguistic analysis, pedagogical factors analysis, administrative factors analysis, implementation needs analysis, methodology and evaluation.

1. 7. 6. A Contribution to the Literature of NA

The literature review presented in this study provides a synthesis of the different perspectives of NA. This study notes that despite the relatively long history of NA and the increasing body of research and publication, at the level of articles and PhD theses, there has not been a single book focusing on NA since Munby (1978) which is now rather dated. NA however play a significant part in other more recent works such as Hutchinson and Waters (1987), Robinson (1991) and Jordan (1997). Information about NA, thus, has to be sought from a range of resources either published or unpublished. This is an extra burden on the researcher, needs analyst, teacher, course developer and material designer and may prevent them from identifying the correct and necessary information for a given context. Thus, the current study contributes to future research in the field by reviewing and synthesizing as much of the literature as possible, highlighting the main developments in

NA and presenting the prospective reader with a comprehensive overview of the theory of NA.

1. 7. 7. Making NA findings publicly available

The study also contributes to the literature of NA by making the data and findings of this study available for prospective researchers. The results of language analysis of the later needs-analysis approaches have frequently been firmly kept in-house by the language institutions concerned (Nelson, 2000). This study shares not only approach and methodology of NA, but also the results provided in the main body of the thesis. They are presented with a degree of explicitness that can inform other similar studies and permit critique of the results.

1. 7. 8. The Study Reemphasises the Role of Language Analysis in the Process of NA

The study found that some Post-Munby Approaches (for example: the skills and strategies approach and the Means Analysis) in broadening the focus of needs analysis to include besides language analysis other factors e.g. learning strategies, diminished the role of Language Analysis in NA. This study argues that the role of linguistic analysis in NA and course design should not be underestimated. A case for a significant role of language analysis has recently been made for Business English (Dudley-Evans and St John, 1998). Additionally, linguistic analysis, from the different schools of language analysis like Systemic Functional Linguistic (SFL), Exchange Structure Analysis, Genre Analysis Approaches, Critical Discourse analysis and Contrastive Rhetoric, is used world-wide in developing teaching materials and language course design (Coffin, 2001 and Burns, 2001).

1. 7. 9. The Triangulation of Genre Analysis with other Tools of NA

A further area of significance is the manner in which genre analysis has been applied to needs analysis in this study, triangulated with other needs analysis tools. Using genre analysis to determine learners' needs is not new in ELT, particularly in ESP/AEP programmes, yet triangulating it with data from other tools has not been widely done. Genre analysis is best known in Australia (Coffin, 2001). Australian Adult Migrant English Programme (AMEP) draws extensively on tools developed by Systemic Functional Linguistics (SFL) including genre analysis to design the syllabus, decide teaching and learning methodologies and assessment practice (Coffin, 2001). In this situation, genre analysis, was the basic needs analysis tool applied, was used for genre-based pedagogy where purely genre based approaches and syllabuses are used.

Unlike AMEP, in this study data gathered through genre analysis is used to triangulate with other analytical tools particularly questionnaire and classroom observation. The syllabus suggested as a result of such an analysis is not a pure genre based syllabus, but genre is embedded in a wider-scope ESP/EAP syllabus to meet the various needs of the technical students. In addition, it analyses a wide range of genres including assignment, homework, quizzes, exam papers, handouts, and textbooks across 3 technical specialisations. The genre analysis in this study therefore is wider in scope and focus than many previous studies which concentrate either on one field of study, for example Cheung (1993) on Business; Howe (1990 & 1993) on Law; Salahshoor (1999) on TESOL; or on a specific section of a specific type of genre for example, Hopkins and Dudley-Evans (1988) who investigated the organisation of discussion sections in research-focused articles and dissertations and Swale (1984) who studied the introductions to a group of academic articles; or on one feature, such as Cheung (1993) who analysed the discoursal structure of the analysed texts and points out the prominent linguistic features. The genre analytical methodology applied in this study has enabled me to achieve a deep comprehension of the nature of the technical genres used in the three specialisations in the colleges of technology in Oman.

1. 7. 10. Contribution for a better Understanding of the Regional ESP Context

In the 1970s, Swales wrote from the Middle East *“if a regional network of contracts can be consolidated, and if better arrangements can be made for carrying out research in situ, then there seems to be no reason why the Middle East should not strengthen its position as a leading area for ESP development. But if none of these things happen, the region may become at worst nothing more than an employer of an army of ELT mercenaries and at best a convenient and cheap testing ground for Anglo-American ELT theories”* (Swales, 1977 p 38). The Middle East may be still not a leading area for ESP development but, since 1977 many pieces of research, for example, Qotabah (1990), Remache (1992), Al-Otaibi (1994) and Kelliny (1994) have been done in the area by Middle Eastern researchers to understand the, of course, changing requirements of the Middle Eastern students in ESP programmes. Firstly, therefore, this study contributes from the inside to the overall knowledge about the nature of ESP in the Middle East, the changing needs of the students in these programme and above all may contribute to our understanding of how internationally developed ELT theories may need to be adapted to suit a particular context/ the context in the Middle East with its special needs and requirements.

1. 7. 11. Significance for the Study's own Context

This study is significant within its own setting because it is the first time that both the teachers and students of the Colleges of Technology have been involved on such a large scale in discussion of the students' language needs. It is hoped to find out the degree of satisfaction or dissatisfaction of stakeholders (teachers and students) with the outcome of the current FYP, their perceptions of the FYP purpose, and of learners' language needs in the technical context. On the basis of these and a systematic genre analysis of the technical teaching material it will make recommendations as to how the FYP may be made more effective in graduating students who are capable of dealing with the language demands of the technical studies.

The study is also significant in terms of its potential impact on the process of syllabus design for foundation programmes in vocational/technical colleges. It is hoped that the findings of the study will be used by decision-makers and FYP teachers for the improvement of the language teaching in the FYP. For instance, establishing the purpose of the FYP as perceived by the teachers and learners will help to identify a target context on which learners' needs and course objectives should be based. A clear list of the students' language needs is a resource on which future improvement of the FYP in terms of content, sequence and teaching material may be based.

1. 8. Organisation of the Thesis

This section describes the overall structure of the study. The next chapter, chapter two presents the theoretical background to the study, by discussing some of the literature relating to needs analysis. It first reviews the development of needs analysis in the domain of ELT. Then it discusses approaches to NA. After that an analysis of previous studies on NA is provided, followed by a discussion of how they have been influenced by different approaches to NA. The implication of all the above for the present study is then discussed. A brief introduction to the methodology of data analysis and interpretation is provided at the end of this chapter.

Chapter three explains the design and implementation of the current study. First, it explains the resources of information for this study and the description of the participants. Then, a discussion of the three research instruments: questionnaires, interviews, and classroom

observations is presented. The methodology of data analysis is also discussed. Then the chapter provides a discussion on the pilot study, main data collection and ethical aspects of the study. An examination of how the study tries to ensure trustworthiness is provided.

Chapter four reports the analysis of the data gathered by means of the questionnaires and interviews. Chapter five reports the analysis of classroom observations and genre analysis. A conclusion summarises the findings of these two chapters and discusses the initial perspective of implications for the FYP.

Chapter six introduces a discussion of the findings of the study. It also provides a further discussion on the implication of the findings on the FYP objectives, underpinning principles, content, organisation, assessment system and evaluation. It also debates the implications of the findings on the FYP teachers and the relationship between the FYP and the other academic and administrative departments in the Colleges of Technology. A proposed timetable for the implementation of the suggested change is also provided.

Chapter seven is a conclusion in which the study is summarised and recommendations for further research are proffered. This chapter also includes my own reflections on the research. Finally, a summary of the study is set down.

1. 9. Conclusion

English is the medium of instruction in the above mentioned Colleges. The FYP is a one year intensive language course which aims at providing the students with the required level of English in order to be able to study in the technical specialisations: IT, Business and Engineering which last for two academic years. Yet, dissatisfaction about the language abilities of the FYP graduates has been heard from different sources inside and outside the colleges. Without an efficient FYP programme the ability of the technical training to provide adequately qualified manpower will continue to be severely compromised. So, like any other language course the FYP has to be revisited and rethought in order to improve it. The policy makers in the Government are aware, of course, of this point and a plan to reshape the programme is going on at the moment.

The current study is a contribution to the effort of the Government to reform the FYP. It aims at ascertaining the nature and extent of the discrepancy between the current practice in the FYP and the actual learners' needs in technical studies: identifying the differences in the language needs among the different academic specialisations; establishing the core/key language/learning skills for all the technical departments; and providing reasonable recommendations for the improvement of the learning/teaching efficiency of the FYP. The needs analysis process applied in this study is based on the theory of NA, as provided in the literature of NA. The next chapter reviews the literature of NA in order to construct an understanding of its theory.

Chapter 2: A REVIEW OF THE LITERATURE OF NEEDS ANALYSIS

2. 1. Introduction

The purpose of this chapter is to develop a theoretical framework for the needs analysis- also known as needs assessment (Berwick, 1989 and Graves, 2000 & 2001)- procedure employed in this study. This framework is constructed by reviewing and highlighting the development of needs analysis in the literature on TESOL. This review is then used in 5. 4 to explain the findings of the study especially when discussing learners' needs in terms of 'wants' and 'necessities' (Hutchinson and Waters, 1987). In what follows the historical development of needs analysis is discussed in 2. 2. The approaches and analytical frameworks of NA are discussed in 2. 3. The literature of NA is discussed in 2. 4. A discussion of some previous NA studies is provided in 2. 4. 2. A discussion on the literature and approaches is presented in 2. 5. The implication of all the above for the present study is discussed in 2. 6. This includes discussing the present situation analysis and target situation analysis, necessities and lacks and the conflicts and inconsistency of needs. Then, the methodology of needs analysis from a theoretical perspective is discussed in 2. 7. This includes discussing the techniques for needs analysis, sources of information and triangulation of sources and technique. The genre analysis approach that is chosen for corpus analysis is discussed in 2. 8. The analysis and interpretation of data is discussed in 2. 9. The chapter conclusion is presented in 2. 10.

2. 2. The Historical Development of Needs Analysis

This survey aims at providing a basic orientation for a detailed review of the literature, which will be provided in the section which follow. The present portrait of Needs Analysis has developed since its emergence in the last century. The development is presented in the literature as a series of discrete but overlapping phases e.g. register analysis, discourse analysis, target situation needs analysis, needs analysis. The main stages development will be highlighted in this section. What should be born in mind is the highly overlapping nature of this development. So, the chronological sequence is not absolute.

2. 2. 1. Pre-1960s Developments

It seems that the writers and researchers in NA, for example, Nelson (2000), Hutchinson and Waters (1987), regard the early 1960s, in which Register Analysis started, as the birth date of NA. Yet the idea of need can be seen underlying some of the main innovations in LT e.g. Direct Method, that took place in late nineteenth century and early twentieth century (Mackey, 1965). In addition, the Modern Language Association of America, a committee of American teachers appointed in 1892 to advise the National Educational Association on curriculum and methods in language teaching, explicitly saw the language need as reading only, "*the ability to converse should not be regarded as a thing of primary importance for its own sake but as an auxiliary to the higher ends of linguistic scholarship and literary culture*" (Thomas, 1901, in Mackey, 1965, p 147). Similarly, the Army Specialised Training Programme (ASTP), a specially designed language programme set up with the help of the Universities in America, consciously derived its learners' needs from the needs of American personnel during Second World War to speak a foreign language fluently. So here, the focus was on speaking.

What can be concluded is that implicit understanding of the importance of language learners' needs and ways of fulfilling them started a long time before the emergence of Register Analysis in the 1960s. Yet, the explicit conceptualisation of such needs only started to take place from 1960s onward as a result of a range of factors.

2. 2. 2. The Conditions in which NA Started to Develop

The 1960s witnessed a qualitative change in the thinking of practitioners in LT. Stevens (1977) provides an account of the intellectual and contextual changes in LT in that period, on which I try to build this discussion. These changes could be summarised in the rejection of the assumption that the success of language teaching lay through the application of a homogeneous single method, for the idea that there are other factors which may lead to success or failure in language teaching so, they all must be considered (Stevens, 1977).

From the emergence of the Direct Method in the late 1800s and early 1900s to the late 1950s and early 1960s practitioners' thinking was devoted towards searching for a sufficiently homogeneous single method of language teaching (Stevens, 1977). Therefore, the success of the American Audio-lingual method, which were designed originally for USA military officers and then implemented with university students, led to its expansion

for using it with younger learners around the world. It did not work as successfully in these new contexts as it did in its original ones, since the factors which helped it succeed in the first place did not necessarily exist elsewhere. The young adults seeking entry to American universities, to whom the audio-lingual method was applied in the USA, were highly selected and motivated. The teachers, besides being native speakers of English, were highly trained. The teaching was intensive and took place in an English-speaking country. The new contexts, in which it was introduced, were usually developing overseas countries in which English was a foreign or second language, the method was introduced to school systems, with less intensive, less motivated and intellectual learners and less capable teachers (Stevens, 1977 and Els *et al*, 1984).

Two hypotheses were suggested to explain the failure (Stevens, 1977). First, it was blamed on the need to consider new linguistic and psychological trends. The second hypothesis pointed out that the audio-lingual approach was not designed to work in the new conditions it was exported to. It was because of these new conditions that the method failed, not because of its linguistic and psychological bases. So, language teachers in particular and other practitioners, in general, started to realise that successful language learning and teaching is governed by a complex set of variables, not just the method used.

2. 2. 3. Factors Encouraging the Development of NA in the 1960s

As NA emerged and was conceptualised in the 1960s, other factors encouraged its development. First, the 1960s witnessed rapid changes in education in the USA as a result of a number of social factors. The guarantee of federal financial support to the educational and service-providing agencies in the USA was stipulated with providing a precise identification of needs. Without providing the required identification of needs no agency was eligible for government fund and support. Second, the Behavioural Objective movement, which appeared at that time, also encouraged the idea of needs analysis and identification by emphasising the analysis and measurement of all goals in the educational enterprise. This forced needs analysis to become part of the education process.

A third factor was the attempt in ESP to fulfil learners' needs by identifying the type of language needed in the contexts of use. Starting from early 1960s many ESP programmes around the world were dissatisfied with the outcomes of their students. The failure was attributed to the idea that learners were taught English regardless of their aims, needs or interests (McDonough, 1984 and Berwick, 1989). Therefore, many practitioners started to

establish language programmes based on an analysis of the particular circumstances of the contexts in which they taught. Also, reports and articles about the features of ESP programmes, according to the place of the programme, its learners, the level of education etc began to be published. For example, Swales (1977) reported on ESP in universities in the Middle East in which rapid growth in the post-secondary English teaching programmes was taking place. He mentioned a number of factors which then determined the ESP teaching in that part of the world. He pointed out that factors such as whether the programmes was mainly influenced by American or British ELT thinking, and the time available for ELT were not helping to provide a good ESP environment. Dudley-Evans (1977) described some of the (academic) language needs of overseas undergraduate sciences engineering students in the University of Birmingham, UK, and how the University fulfilled these needs by means of a two-week pre-session course.

So, by 1960s the idea of NA had emerged and was encouraged by the factors cited in this section.

2. 2. 4. The Developments of NA in the late 1960s and the mid-1970s

Since the 1960s, the study of NA has grown fast and widened in focus. Approaches to NA have changed as views on language and language teaching have changed. From the late 1960s to the mid-1970s the focus of NA was Register. *"The basic idea behind Register Analysis...was that the choice of language used in certain circumstances is pre-determined. This predetermination is governed either by the situation the speakers are in or by the subject matter they are talking about"* (Nelson, 2000 p 41). The belief then was that the register of the English differed according to the different specializations e.g. Mechanical Engineering and Medicine. It was also believed that the English needed for any given group of learners could be identified by analysing the linguistic features of the language that group uses in its area of work or study. The objective of analysis then was to find out the register differences, particularly grammar and vocabulary among these different specializations (Hutchinson and Waters, 1987 and McDonough, 1984). Therefore, in that era register analysis which focused on the linguistic features of syntax and lexis was common. Many studies which analysed the register of scientific and technical language appeared for example, Ewer and Latorre (1969), Swales (1971) and Selinker and Trimble (1976) (Hutchinson and Waters, 1987).

In the early 1970s the functional approach to describing language started to flourish. This approach was influenced in UK by M. Halliday (1973) and in USA by Gumperz and Hymes (1972). The essence of this approach is that language is not only vocabulary and grammar but also the ideas, thoughts, feelings etc. which exist and are transmitted between people in spoken and written discourse. The term function is used to address the different uses to which language is put. Halliday (1973) outlined seven functions of language which were expanded by Van Ek and Alexander (1975) into 70 different functions. Actually, more functions can be seen as analysis developed further. The analysis, which looks beyond the sentence level, is known as **Discourse Analysis** (Brown, 1994). Soon discourse analysis found its way into needs analysis and replaced register analysis now criticised for being limited to the sentence level and not explaining why words occurred where they did. Discourse analysis in turn developed, by Swales (1981), and came to be known as the **Genre Analysis Approach**. This takes account of the culture and situation in a way that previous discourse analysis was unable to do, and places discourse into its communication context. Since then, genre analysis has been considered a useful instrument in NA, surely influenced development in ESP (Dudley-Evans and St John, 1998).

2. 2. 5. Munby's Contribution and its Consequences

The 1970s also witnessed the beginning of the conceptualisation and application of *communicative language teaching* (CLT) which brought with it a new turn in NA history in English teaching contexts in many parts of the world. CLT's ultimate objective was that of teaching a second language for communicating with other speakers focusing on speaking, listening, writing for specific communicative purposes and on authentic reading texts (Brown, 1994). The existing approach of NA was unable to provide all the needed information for the design of a CLT syllabus. Munby (1978, p 3) noted that, "*Communicative syllabus design as yet lacks a rigorous system for deriving appropriate syllabus specifications from adequate profiles of communication needs*". Therefore, he responded to this lack by "*an attempt to solve this problem by designing a dynamic processing model that starts with the learner and ends with his target communicative competence. It is the detailed syllabus specification, the target communicative competence, which constitutes the essence of what should be embodied in the course material*".

Munby designed a model, called the **Communication Needs Processor (CNP)**, for analysing the learners' target needs. Munby's model, in fact, did not add anything to the concept of needs *per se*. It inherited from its ancestors: register analysis and discourse

analysis the focus on the linguistic features, but provided an organized procedure for analyzing the linguistic features of learners' language used in the target situation. This was criticised by some specialists for not addressing learners adequately e.g. Hutchinson and Waters (1987), Holliday and Cook (1982), Holliday (1983 and 1994), White (1988) and McDonough (1984). Hutchinson and Waters (1987, p 14) say "*we cannot simply assume that describing and exemplifying what people do with language will enable someone to learn it. If that were so, we would need to do no more than read a grammar book and a dictionary in order to learn a language. A truly valid approach to ESP must be based on an understanding of the processes of language learning*". Holliday and Cooke (1982 p 137) concluded, "*The needs analysis [Munby's model] should be treated, not as a blueprint, but as a heuristic device which may or may not be applied in full or in parts*".

The view held by Holliday and Cooke (1982) and Hutchinson and Waters, (1987) again led to new developments in NA in which the focus is directed further towards the language-learning context. Holliday (1980, 1983) and Holliday and Cooke (1982) developed **Means Analysis**. It studies the local situation to find out how the language course can be implemented (Jordan, 1997). Here four main areas are targeted: a) the classroom culture/ learner factors; b) staff profiles/ teachers profiles; c) status of language teaching/ institutional profiles e.g. resources allocated; d) change agent/ change management- includes an assessment of what innovation is necessary or possible in order to establish an effective language programme (West, 1994). It is a tool used to help to prevent the bias that may be caused by imported teaching methods that may clash with the features of the language teaching context (Jordan, 1997).

Hutchinson and Waters, (1987) promoted the **Learning-Centred Approach** which provides frameworks to analyse learner's needs in both situations; the language use situation and the language learning situation. In contrast to Munby's view of the importance of language learning situation variables, Hutchinson and Waters, (1987, p 61) state "*it is naïve to base a course design simply on the target objectives, just as it is naïve to think that a journey can be planned solely in terms of the starting point and destination*".

The NA researchers' interest in both the language-learning context and the language use context created new terms, which I would like to address at this point. Analysing the learners' needs in the target context is known as **Target Situation Analysis (TSA)**, while

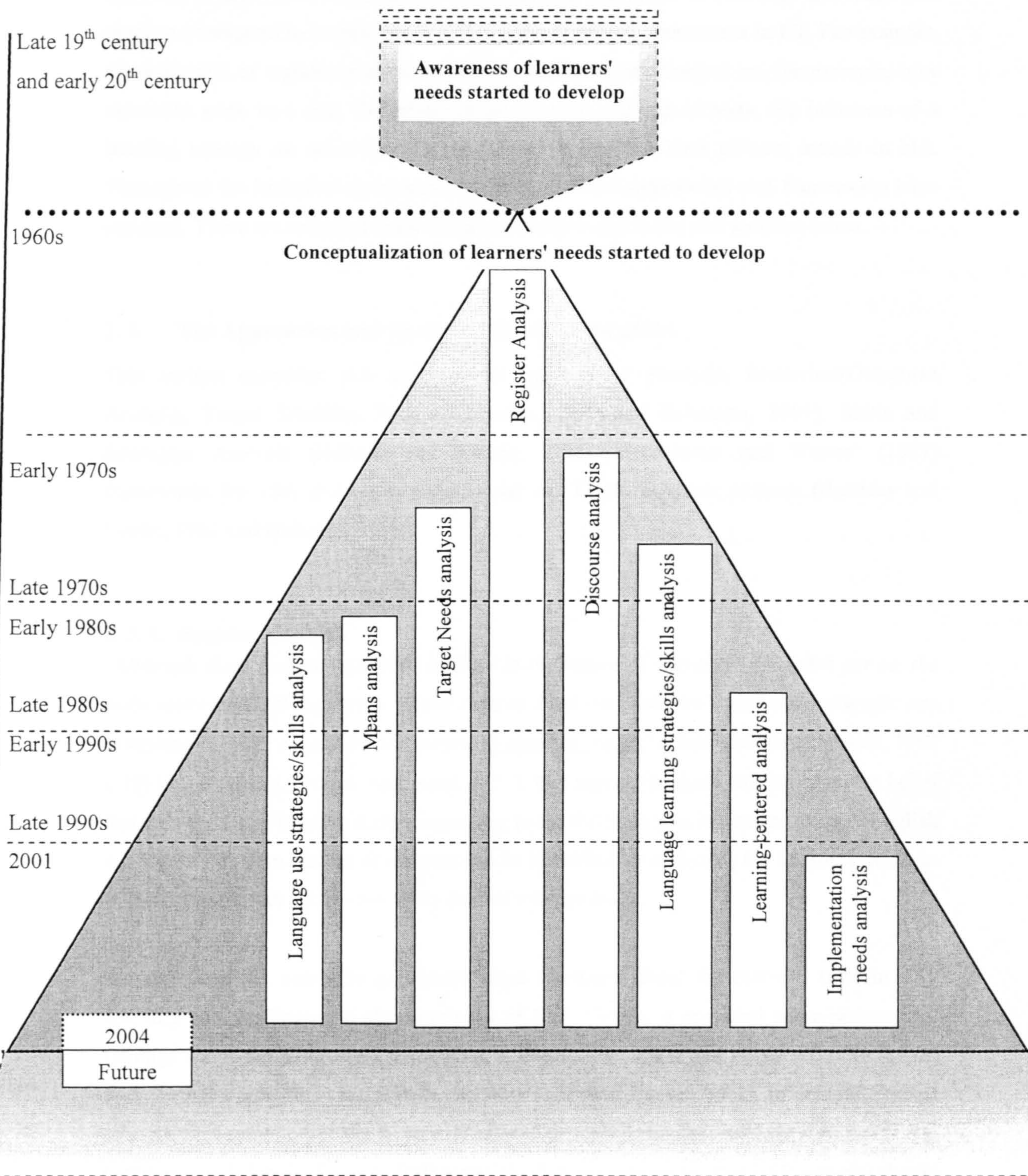
needs analysis, which focuses on the language-learning context, was formerly known as **Present Situation Analysis (PSA)**. Robinson (1991, p 9) points out that *“in practice, one is likely to seek and find information relating to both TSA and PSA simultaneously. Thus needs analysis may be seen as a combination of TSA and PSA”*.

2. 2. 6. The Twenty-First Century Development in NA

In the twenty-first century, a model of **“innovation implementation needs”** was added (Waters and Vilches, 2001). These authors identify the basic characteristics of innovation implementation needs particularly in large-scale curriculum reform. They argue that the initial decision making in ELT innovation usually takes place among personnel at the top of the top- down enterprise- ignoring those who are responsible for the implementation of the innovation e.g. teachers and students. This frequently leads to the failure of proposed innovation. The model Waters and Vilches suggest, takes into account the innovation implementers from the early stages of the innovation.

The historical development of NA discussed in this section is illustrated in Figure 2 below.

Figure 2: the historical development of NA



To conclude, the development in the breadth of factors are considered to be relevant to NA has been influenced throughout its history by the inabilities of existing knowledge and practice to respond to certain needs and/or explain certain phenomena in LT. For example, the limitation of register analysis to provide sufficient information on, for example, how sentences work in a text, the relationships between a group of texts, the influence of a learning strategy on achieving the needs etc, lead to the birth of new strands in NA. Throughout the historical development of NA, different approaches and frameworks have emerged. These are reflected in the literature as discussed in the two sections below.

2. 3. The Approaches and Analytical Frameworks of NA

This section examines NA as proposed by Register Analysis, Rhetorical/Discourse Analysis, Target Situation Analysis (Jordan, 1997 and Robinson, 1991), Skills and Strategies Analysis (Holmes and Ramos, 1991), Hutchinson and Waters' (1987) frameworks for TSA and LNA, and Holiday and Cooke's Means analysis (Holliday and Cooke, 1982 and Holliday, 1994).

2. 3. 1. Register Analysis

“Although there was an academic interest in the nature of registers of English per se, the main motive behind register analyses such as Ewer and Laborre's was the pedagogic one of making the ESP course more relevant to learners' needs” (Hutchinson and Waters, 1987 p 10) [my emphasis]. It was mentioned in 2. 2. that register analysis was based on the belief that the register of English differs according to the different specialisations. So, the English needed for any given group of learners can be identified by analysing the linguistic features of the language that group uses in its area of work or study.

Register Analysis was able to answer some questions about the material used in ESP teaching and the linguistic characteristics of ESP. Firstly, it provided some pedagogical findings about the nature of texts used in ESP teaching. Ewer and Hughes-Davies (1971) find, by comparing the text science students read with the textbooks in general English schools, that some textbooks in general education schools neglect the language forms e.g. passives, conditionals, found in ESP material. They recommended that ESP material should provide the ESP students with such forms. Nevertheless, the materials based on this

approach e.g. Herbert (1965), despite being sound for their period were not very helpful. They were boring and demotivating for both students and teachers (Nelson, 2000).

At the linguistic level, Register Analysis pointed out the different features of the structure and lexis of the scientific texts. For example, it was found that scientific texts favour particular forms such as the present simple tenses, the passive voice and nominal compounds. Regarding lexis, the analysis showed a great difference between the vocabulary of general English and that of scientific English (Corbluth, 1975). Such findings fulfilled the curiosity of those who were interested in the linguistic features of ESP material. Yet, the results were not satisfactory on more than one ground. First, Register Analysis looked at features in isolation, limiting its focus to the structural and lexical features of discrete sentences. Therefore, it failed to provide information above the sentence level. Second, it was rather descriptive. It did not provide explanations of why words occurred where they did or why certain structures were preferred (Nelson, 2000). In addition, it showed very little distinction, beyond the lexical domain, between general English and ESP. Its finding on this regard was seen as very insignificant. As Coffey (1984 p 4) puts it, "*in short, register cannot be used... because there is no significant way in which the language of science differs from any other kind of language*". The inadequacy of register analysis encouraged analysts to shift the idea and practice of text analysis to the level of the Discourse Analysis approach.

2.3.2. Discourse Analysis

Discourse/rhetorical analysts argued that "*... the difficulties which the students encounter arise not so much from a defective knowledge of the system of English, but from an unfamiliarity with English use, and that consequently their needs cannot be met by a course which simply provides further practice in the composition of sentences, but only by one which develops a knowledge of how sentences are used in the performance of different communicative acts*" (Allen and Widdowson, 1985 p 74)¹. Instead of analyzing sentences as independent units, as in the case of register analysis, discourse analysis regards the text as one unit consisting of its many sentences which are linked together to communicate one whole idea. The communicative values of a text rather than its lexis and grammar then became the focus of text analysis (West, 1997). This included the study of the coherence of

¹. was originally published in 1974 as, Allen, J. P B. and Widdowson, H. G. (1974) Teaching the Communicative Use of English, *International Review of Applied Linguistics*, XII, 1, pp 1-20.

text, its meaningfulness, unity and cohesion, links between sentences and between clauses (Cook 1989, Coffey, 1984 and Nelson, 2000).

Pedagogically, the discourse approach assumes that texts of different disciplines differ in their rhetorical features, for example, medical texts differ rhetorically from those of engineering. The analysis provided valuable information about the organizational and rhetorical features of discourses of particular disciplines, for example, science, medicine, business. The outcomes were used to design teaching materials aiming to teach students to recognize the organizational patterns of texts. As to the negative features, the extent to which texts of different domains differ was not adequately addressed and no clear answer was provided. In addition, although, discourse analysis widened the scope of analysis to encounter the organizational patterns in spoken and written texts, the focus was still on the linguistic features of the target language. This means that factors other than language description, such as learners' motivation and preference of learning, material, resource, are not considered.

2. 3. 3. Target Situation Analysis

The Target Situation Analysis approach was developed by Munby (1978). It was a response to the growing need in ELT for a model that would provide practitioners with all the required information about their learners' communication needs. Therefore, it provided an organized procedure for analyzing the linguistic features of learners' language used in the target situation. This, as was pointed out above, did not add anything to the concept of needs *per se*. Like register analysis and discourse analysis, its concern was with the linguistic features of texts. Thus, some writers, for example, Hutchinson and Waters (1987), call it target needs analysis rather than needs analysis, given that needs analysis involve both the target situation and the learning situation.

Munby's model, called the Communication Needs Processor (CNP), is a procedure consisting of parameters, or sets of questions, for analysing learners' target needs. These parameters provide information about:

- 1- Participants: identity (sex, age, nationality),
language (mother tongue, target language, present level etc).
- 2- Purpose of learning: educational, occupational
- 3- The target setting in which language will be used:

- a) physical setting: location (country, town) place of work, place of study, duration and frequency of use of English,
- b) psychological setting: 25 pairs of psychological settings
e.g. “culturally similarly culturally difference”
“age/sex discriminating age/sex non-discriminating”
- 4- Interaction: the other participants in the target communication and the relationship between them: e.g. teacher – students, doctor – patient
- 5- Instrumentality of communication: spoken – written, monologue – dialogue, face to face, telephone, tape
- 6- Dialect: national/standard (British/north American: American/Canadian), upper class, middle class, working class English
- 7- Target level: six dimensions of level are determined:
 - a) size (length and quantity) of utterance/text,
 - b) complexity of text/utterance including for example coherence
 - c) range of forms: micro- functions, micro-skills
 - d) delicacy: refers to the level of specificity and detail,
 - e) speed: the rapidity of flow
 - f) flexibility: ability to handle unexpected communications
- 8- Communicative events: what the participant has to be able to do, for example, “interchange between air traffic controller and pilot/navigator on approach to airport”
- 9- Communication key: the tone, manner spirit in which the act is done
- 10- Language skills: a taxonomy of two hundred and sixty micro-skills, subcategorised in fifty groups, is presented.

Munby’s (1978) model was unconventional, innovative and of great theoretical value. It provided thorough and comprehensive data banks, which can be used as checklists for syllabus design. It is also helpful in deciding a target-level performance, as learners’ target level could differ according to the requirement of the target situation, and in distinguishing between the requirements of English for occupational and for educational purposes (Robinson, 1991). In ESP, its impact was tremendous, so that Hutchinson and Waters, (1987 p 54) describe it by saying “*the work marked a watershed in the development of ESP. with the development of the CNP it seemed as if ESP had come of age*”.

On the other hand, Munby's model was practically complicated and difficult to follow and apply. Besides that, learners were not adequately involved since after they had been approached at the initial stage they were disregarded for ever. Munby also deliberately ignored the constraints that could be found in the language-learning context and which might affect the performance in the target situation e.g. qualified teachers, time allocated to teaching, learning strategies etc. Although he did not underestimate the importance of such variables, he believed they "*belong to the subsequent stage of course design and should not be considered before the syllabus specification has been obtained*" (Munby, 1978, p 4). This view was criticised and opposed by others, for example McDonough (1984) and Hutchinson and Waters (1987) who believed the language learning context contains many variables which could influence the language learning, for example, the learners' motivation, learning strategies, resources etc. These variables are addressed by other approaches particularly the learning-centred approach, which will be discussed later in this section.

2. 3. 4. Skills and Strategies Approach

Although the Skills and Strategies is an approach to syllabus design, it also contributes to the knowledge of NA in terms of identifying learners' needs as the strategies and skills of language use that learners need. All three of Hutchinson and Water's approaches to course design i.e. language-centred course design, skills-centred course design and the learning-centred approach, start with a phase of target situation analysis or target needs analysis, the learning-centred approach combining both. The current study combines NA with syllabus design which makes this contribution especially relevant. The skills and strategies approach emerged for contextual reasons. Holmes (1982) reports that in the ESP programme lack of time availability handicaps the achievement of preset course aims that are "*defined in terms of what is desirable- i.e. to be able to read in the literature of the students' specialism*" (in Hutchinson and Waters, 1987 p 69). This problem could be solved, as the Skills and Strategies Approach proposes, by providing the learner with strategic competence rather than language input. This involves helping learners to develop the skills and strategies that will continue to develop after the ESP course and enabling the learners to cope with the specialist literature they will deal with (Holmes and Ramos, 1991; Holmes, 1988; Celani *et al*, 1988 and Hutchinson and Waters, 1987).

The idea of language learning represented by this approach contrasts with register and discourse ideas by shifting the focus from the features of the target language, to the process

underlying its use and the development of target skill i.e. reading. The language is viewed in terms of how the mind of the user processes it (Hutchinson and Waters, 1987 and Holmes, 1988)..

The underlying principles of the Skills and Strategies approach is that there are common reasoning and interpreting processes, which enable the language user to obtain meanings from the discourse. The language learner uses the interpretive strategies to work out the meanings of the words from the context, for example, comparing new words with words in the mother tongue. These skills and strategies then became the focus of analysis.

This view increased the needs analysts' attention by looking below the surface of language (lexis and grammar). They started, thus, to encounter the process/interpretive strategies underlying language use that enable the learner to deal with the surface forms (Hutchinson and Waters, 1987). Yet, while this view considered the importance of the skills and strategies, it underestimated the role of any specific register. It believes that the underlying processes are of universal applicability and not specific to the register of any discipline thus, there is no need at all to focus on the register of any specific discipline. In addition, the language-learning context and language use context started to be considered simultaneously (not necessarily equally) by analysing the language use strategy applied in the language use context, and the potential skills, abilities and knowledge the student brings to the language learning context. This in turn involved the learner more closely in the needs analysis by looking at how the learners' mind processes the language, building on the positive characteristics of the potential learners and designing open-ended objectives in which learners are observed (Hutchinson and Waters, 1987). It also considers the language learners *"as thinking beings who can be asked to observe and verbalise the interpretive processes they employ in language use"* (Hutchinson and Waters, 1987 p 14). More importantly, this approach still looks at the student as a language user rather than a language learner. The learning strategies and other present situation factors are addressed by focusing on the learning needs as addressed by Hutchinson and Waters (1987) as in the learning-centred approach which is discussed in the next section.

2.3.5. Learning-Centred Approach' Framework

Hutchinson and Waters (1987) present needs analysis frameworks that compare the target situation needs (p 59) with learning needs (p 62). The learning needs framework emerged to fulfil a task the previous NA practices were not able to fulfil, which is that of providing information about how the language learner learns the language. It is founded on the assumption that there is an essential need to know the way they learn it in the learning context. Its founders argue that *"in looking at the target situation, the ESP course designer is asking the question: 'what does the expert communicator need to know in order to function effectively in this situation?' This information may be recorded in terms of language items, skills, strategies, subject knowledge etc. what the analysis cannot do, however show how the expert communicator learnt the language items, skills and strategies that he or she uses (Smith, 1984). Analyzing what people do tells you little, if anything, about how they learnt to do it. Yet, the whole ESP process is concerned not with knowing or doing, but with learning"* (Hutchinson and Waters, 1987 p 60).

Hutchinson and Waters make a distinction between performance, what you are able to do and competence, what you know i.e. linguistic knowledge (Hutchinson and Waters, 1987 and 1981). Hutchinson and Waters widen Chomsky's definition of performance and competence which was originally concerned with syntax to take a much wider view in ESP arguing that *"the competence, providing as it does the generative basis for further learning irrespective of the target subject, is the proper concern of ESP"* (Hutchinson and Waters, 1981 p 68). The competence-performance relationship shifted the emphasis in ESP, as proposed by the Learning-Centred Approach, from describing the performance needed for communication in the target situation to the competence underlying it, asserting that *"...this competence is fundamental to the whole teaching-learning process, because it is the starting point for the interaction of teacher and student in the transfer of knowledge"* (Hutchinson and Waters, 1981 p 58).

It is noticeable that the authors stress the role of learning needs analysis in the ESP context. This does not mean, however, that needs analysis as proposed by the learning-centred approach is not applicable to other EL situations such as EGP contexts. They believe that the difference between the two contexts is not the absence of needs as such but the awareness of needs. The focus on ESP in this model, I think, is because the whole book in which it is found is concerned with ESP rather than any other branches of ELT. In addition,

Hutchinson and Waters' idea of analysing learning needs soon found its way into the literature of course design and NA in general education, as can be seen, for example, in Graves (2000).

In which way do Hutchinson and Waters think that their approach can help learners learn the language? It could be argued that their concern is humanistic. They look at the learner as a human being with limited abilities and specific interests and attitudes. They believe that the characteristics of the learner should be met in order to make learning effective. They write "*... ESP learners are people. They may be learning about machines, but they are not the word-crunching machines which too many approaches to ESP seem to imply*" (Hutchinson and Waters, 1987 p 61).

To be able to understand the learner as a human being a number of questions not previously asked in NA are proposed. The new questions focus on the learner's interests, preference of learning and attitudes. The information about the learner's interest is supposed to help teacher direct the course towards the learner's experience and interests. The information about the learner's preference can be used not only to select activities which learners will be comfortable with but also can help the teacher build bridges between the students' expectations and the teachers' beliefs and approaches. The information about learners' attitudes is not only about their attitudes towards the target language but also about themselves as learners. Positive attitudes towards being a language learner enable the students to cope with the demands of language learning and help them to feel comfortable with making mistakes, work cooperatively with others in the classroom etc. (Graves, 2000).

Hutchinson and Waters (1987) propose that this type of information considers the learner throughout the learning process. A syllabus based on learning needs analysis, called the learning-centred approach, differs from the target needs analysis based syllabus and skills based syllabus in a number of ways. The target needs analysis syllabus approaches the learner in order to specify his target purpose then she or he is ignored. The skills analysis syllabus approaches the learner for his/her target purposes and the skills he or she applies to use the language in the target context. The learner is then ignored. "*A learning-Centred approach says: that's not enough. We must look beyond the competence that enables someone to perform, because what we really want to discover is not the competence itself, but how someone acquires that competence*" (Hutchinson and Waters, 1987 p 73). This

means that both the learning situation and the language use situation (Target Situation) influence the design of the syllabus. They also influence the teaching material, methodology and evaluation process. In addition, none of these components works in isolation from each other. In other words, they work in an interrelationship: they influence each other and are influenced by each other. This approach believes that needs and resources change in time. Therefore, the course design should be a dynamic process which enables the course to respond to any developments. Other approaches to syllabus design which are based on NA, for example, the language-centred course design and skill-centred course design are neither dynamic nor take care of the learning process. The language-centred approach and the skills-centred approach are criticized for looking at the learner as a user rather than a learner. The language-centred approach is also criticized as being static and inflexible. The skills-centred approach analyses the skills the learner uses to perform in the target context, and the potential knowledge the learner brings with him/her to the language course and uses them in designing the syllabus. In addition, it analyses the language-learning context to highlight the constraints, such as time allocated for the course, resources etc. which may prevent/limit the course from providing the language learner with the required skills. Yet, it still approaches the learner as a language user rather than a language learner.

Hutchinson and Waters' (1987) framework presents six sets of questions about the language in the target context (TSA). This system is simple and straight forward compared to Munby's (1978). Because Hutchinson and Waters are also interested in PSA, they suggest a similar structure for present situation analysis or "learning needs" as they call it. The two frameworks are presented in Table 5 below.

Table 5: TSA and PSA frameworks.

(Hutchinson and Waters, 1987 p 59 & 62).

Target situation Analysis	Present situation Analysis
<p>Why is the language needed?</p> <ul style="list-style-type: none"> - for study; - for work; - for training; - for a combination of these; - for some other purpose, e.g. status, examination, promotion. <p>How will the language be used?</p> <ul style="list-style-type: none"> - medium: seeking, writing, reading etc.; - channel: e.g. telephone, face to face; - types of text or discourse: e.g. academic texts, lectures, informal conversations, technical manuals, catalogues <p>What will the content areas be?</p> <ul style="list-style-type: none"> - subjects: e.g. medicine, biology, architecture, shipping, commerce, engineering; - level; e.g. technician, craftsman, postgraduate, secondary school. <p>Who will the learners use the language with?</p> <ul style="list-style-type: none"> - native speakers or non-native; - level of knowledge of receiver: e.g. expert, layman, student; - relationship: e.g. colleague, teacher, customer, superior, subordinate. <p>Where will the language be used?</p> <ul style="list-style-type: none"> - physical setting: e.g. office, lecture theatre, hotel, workshop, library; - human context: e.g. alone, meetings, demonstrations, on telephone; - linguistic context: e.g. in own country, abroad. <p>When will the language be used?</p> <ul style="list-style-type: none"> - concurrently with the ESP course or subsequently; - frequently, seldom, in small amounts, in large chunks. 	<p>Why are the learners taking the course?</p> <ul style="list-style-type: none"> - compulsory or optional; - apparent need or not; - are status, money, promotion involved? - What do learners think they will achieve? - what is their attitude towards the ESP course? <p>Do they want to improve their English or do they resent the time they have to spend on it?</p> <p>How do the learners learn?</p> <ul style="list-style-type: none"> - what is their learning background? - what is their concept of teaching and learning? - what methodology will appeal to them? - what sort of techniques are likely to bore/alienate them? <p>What resources are available?</p> <ul style="list-style-type: none"> - number and professional competence of teachers' - attitude of teachers to ESP; - teachers' knowledge of and attitude to the subject content; - materials; - aids; - opportunities for out-of-class activities. <p>Who are the learners?</p> <ul style="list-style-type: none"> - age/ sex/ nationality; - what do they know already about English? - What subject knowledge do they have/ - What are their interests? - What is their socio-cultural background/ - What teaching styles are they used to? - What is their attitude to English or to the cultures of the English-speaking world? <p>Where will the ESP course take place?</p> <ul style="list-style-type: none"> - are the surroundings pleasant, dull, noisy, could etc? <p>When will be the ESP take place?</p> <ul style="list-style-type: none"> - time of day; - every day/ once a week; - full-time/ part time; - concurrent with need or pre-need.

What Hutchinson and Waters actually do is combine three elements, which used to be thought of separately. These three components are: language analysis, strategy analysis and means analysis. It was explained earlier in this section that register, discourse and Munby's CLT are all concerned with Language analysis. Learning Strategy analysis and Means analysis (discussed below) are concerned with learners' individual ways and preference of learning, the availability of resources, the characteristics of the teaching place and the time of the language course.

What should be mentioned here is that taking into account both the language use needs and language learning needs as proposed by Hutchinson and Waters' (1987) frameworks is absolutely sound and meaningful. There is, nevertheless, a question about their practicality for implementation particularly in academic research, such as the present one. This point will be discussed further in a forthcoming section (2. 5) in this chapter.

2. 3. 6. Strategies Analysis

Strategy analysis aims at establishing an idea about learners' preference of learning style, strategy and teaching methods (West, 1994). Interest in learning strategies started as early as 1970s, inspired by observing the fact that some learners seem to be successful regardless of methods or techniques of teaching (Brown, 1994). It began to be thought that such learners' success was due to their individual characteristics including style and strategy of learning. Rubin (1975) and Stern (1975) carried out pioneering work on the characteristics of the successful language learner. In the 1980s a number of studies defining very carefully the specific learning strategies in learning English as a second language were published for example, O'Malley *et al* (1983, 1985, 1987) O'Malley and Chamot (1990), and Cahmot and O'Malley (1986, 1987) (Brown, 2000 & 1994).

What should be clarified here is the distinction between communicative strategies and learning strategies. The former "*pertain to the employment of verbal or nonverbal mechanisms for the productive communication of information*" (Brown, 1994 p 118). Jacobson (1986) investigated the communicative strategy of physics laboratory students. He points out that his study was an investigation of the fourth component of Canale and Swain's (1980) theory of communicative competence e.g. "*strategic competence: knowledge of the way in which language is used to communicate an intended meaning or to compensate for miscommunication*" (p 173). Jacobson (1996) identifies four strategies

applied by physics students: "(a) *evaluating and selecting information formation needed for a specific purpose, (b) synthesising information from more than one source, (c) applying information to new or different situations, and (d) establishing a relationship with others in the lab*" (p 132).

The learning strategies refer to the processing of the input in forms of storage and retrieval. Learning strategies are usually divided into three main categories: metacognitive strategies, cognitive strategies and socioaffective strategies (Brown, 2000 & 1994). Metacognitive strategies relate to the overall processing of the learning process. This includes planning for learning, thinking about learning, monitoring one's production and evaluating an accomplished learning activity. Cognitive strategy is more focused in scope and limited to the learning of a specific task. This may include repetition, grouping, note taking, contextualisation etc. Socioaffective strategies are application strategies which involve other members of the learning context, for example, asking teacher for clarification, explanation or working with peers to obtain feedback etc (O'Malley *et al*, 1985 and Brown, 2000 & 1994). Strategy analysis is embedded in Means analysis, which provides a wider view for NA in the language learning context. Means analysis is discussed in the section below.

2.3.7. Means Analysis

Means Analysis came as a response to Munby's (1978) deliberate ignorance of the contextual factors e.g. political, economic, administrative, and personal that are found in and affect any language teaching setting (White, 1988). Holliday was explicit in stating that "*most of the features which the means analysis surveys are those defined by Munby (1978: 217) as the factors which remain as 'constraints' on syllabus specifications produced by his needs analysis. The significant difference is that in the means analysis these are addressed from the outset... In Munby's model the needs analysis puts off attention to 'constraints' until after the syllabus has been specified; within the means analysis, the needs analysis becomes a lower order investigation device which the means analysis uses and controls according to the needs of the situation*" (Holliday, 1994 p 199).

Means Analysis is derived from the work of project personnel on language-related 'aid projects' in various parts of the world in the 1980s and 90s. It is concerned with trying to identify the factors that may influence the success or failure of introducing innovations to language teaching, in particular national or institutional contexts. "*The Means Analysis*

assesses the capability of the local institution to take the innovation required by the project in question, and the means for implementing such innovation" (Holliday and Cooke, 1982 p 134). Its initiators namely Holliday and Cooke, as in Holliday and Cooke (1982) and Holliday (1994, 1991 and 1992a), support the researchers e.g. Swales (1980) McDonough (1984) and Hutchinson and Waters (1987), who stand against Munby's (1978) idea of postponing the cultural, sociopolitical, logistical, administrative, psycho-pedagogic and methodological constraints until the syllabus is designed as and when they arise. MA not only acknowledges such factors but argues for their importance in the language teaching context. It does not regard them as constraints, 'problems' or "*thorns in the side of sound methodological practice*" (Holliday, 1994 p 108), but rather, "*as essential factors*" (Holliday, 1994 p 108), and "*local features which may prove to have positive and exploitable aspects*" (Holliday and Cooke, 1982 p 137). They are not regarded "*as inhibiting, but as central to the design of appropriate methodology*" (Holliday, 1994 p 108). Therefore, they are taken into account from the very start of MA (Holliday and Cooke, 1982).

Means analysis sets out to provide a thick description of the project culture to help explain how "*learning might be affected by the attitudes and expectations that people bring to the learning situation, which are influenced by social forces within both the institution and the wider community outside the classroom, and which in turn influence the ways in which people deal with each other in the classroom*" (Holliday, 1994 p 9). So, it is not only the classroom that is targeted by Means Analysis but the environment surrounding it. It is argued that the classroom is a culture "*within a wider complex of cultures, between which there are many complex channels of influence*" (Holliday, 1994 p 15). The classroom is influenced by the different agents in the host institution or the host environment, such as parents, employers, market, ministry of education, peers, reference groups and also by cultural assumptions and expectations about the teaching and learning process (Holliday, 1994). The relationship between the classroom culture and the different cultures influencing it is illustrated in Figure 3 below where the classroom is located at the centre of layers of surrounding environments. The dotted arrows show the interaction between the different layers of cultures.

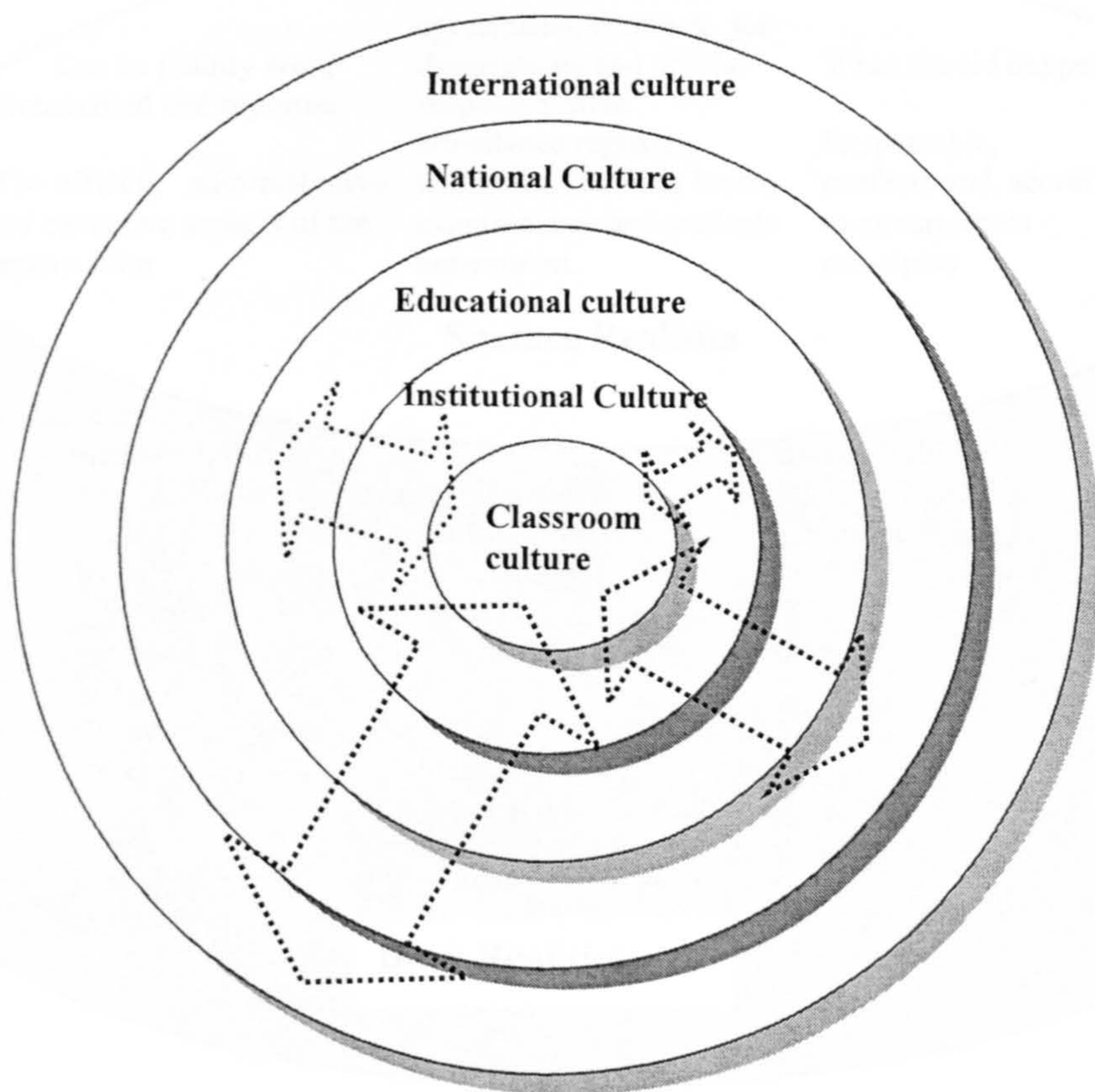


Figure 3: the classroom culture surrounded by the wider cultures, as proposed by Means Analysis approach

There are factors that influence the classroom culture resulting from the interaction between the classroom culture in the core and the cultures surrounding it, or, that emerge from the classroom culture *per se*. Means Analysis is based on distinguishing, within the social context, between two largely connected levels, the micro and macro social factors and then collecting data about as many of these as possible. The macro and micro factors are shown in Figure 4 below.

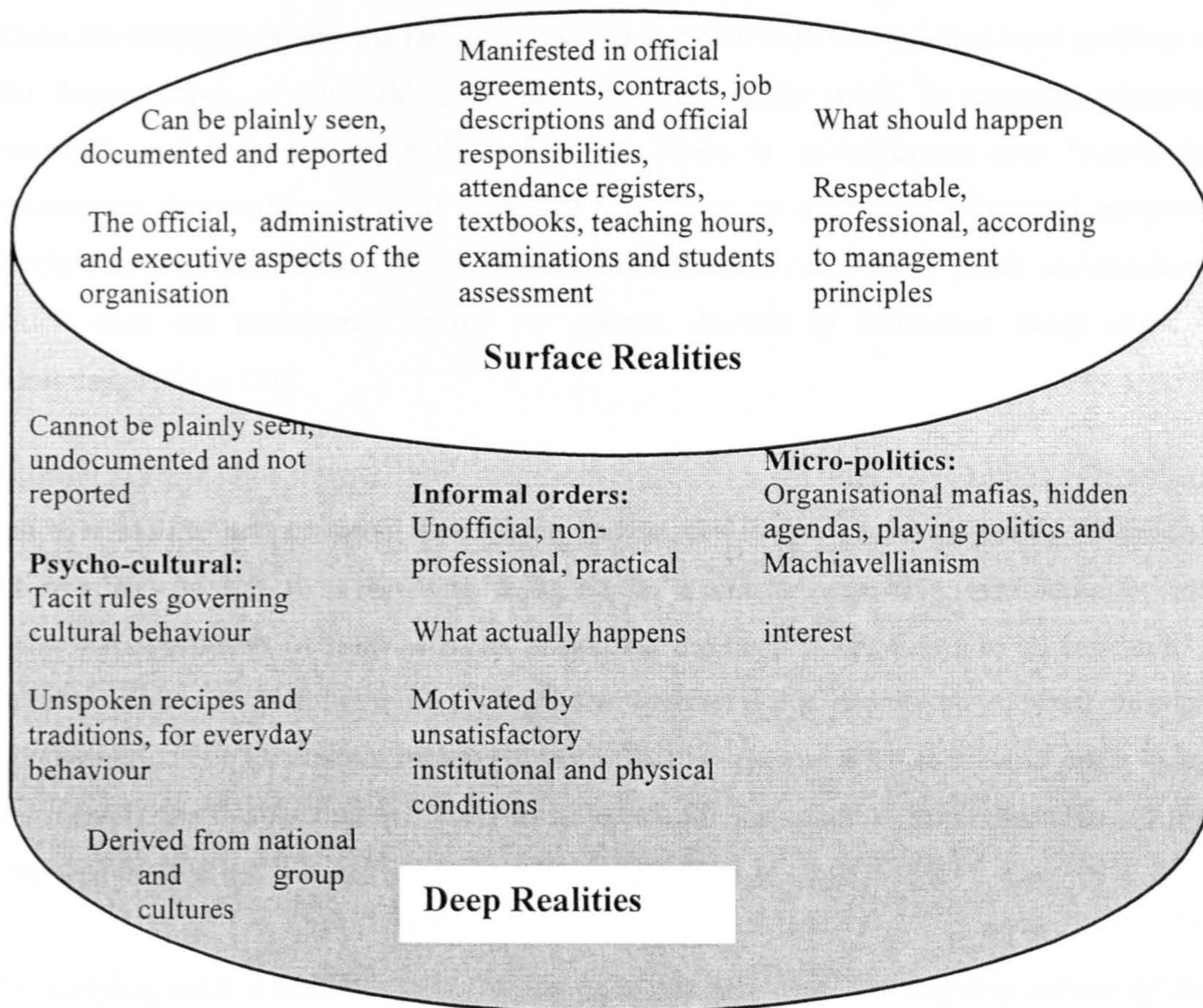


Figure 4: Two levels of factors which are in ELT context and which may influence new projects- adapted form Holliday (1994, p 130).

Traditionally, particularly in applied linguistics, the focus is on the micro level, especially the linguistic domain. This view is not sufficient to provide an understanding of all the needed information about language teaching and learning. For example, discourse analysis concentrates on the social strands but ignores the psychological ones e.g. attitudes, feelings, attitudes of the teachers and students. In general, it reduces the classroom to what is observable in teacher-student talk. Obtaining an adequate understanding of all the needed information about language teaching and learning can only be fully achieved by addressing the macro level aspects because, the micro factors are influenced by the wider macro

factors. In turn, understanding these influential macro factors helps in improving our knowledge of the micro factors (Holliday, 1994).

There are examples where the failure to address and deal with the complex local problem at the deeper level, or embarking on the more accessible work, is counterproductive, cosmetic, and help the project's self-image. There is an argument that "*successful educational innovation does not normally take place as a process of official adoption (surface action), but through the more personal individual response of heads and teachers, which does not necessarily follow the official decrees of institution (deep action)*" (Holliday, 1994 p 131).

Existing at an opaque deeper level, macro-level factors were often tacit among researchers and overseas project personnel. In addition, they lacked the means for collecting the needed information. Means Analysis was designed as a cultural-sensitive methodology data collection approach (Holliday, 1992a), to address the deep issues found in all educational cultures. This can not be done through the literature but should be realized through ethnographic action research, looking at both what is said and what is done in order to try and identify the factors that are likely to influence the introduction/implementation of any proposed innovation.

By applying such a methodology, Means Analysis provides "*an ongoing survey of the cultural, socio-political, logistical, administrative, psycho-pedagogic, and methodological features of the host educational environment as it changes in time before and during the process of innovation*" (Holliday, 1992a p 411). By doing so, Means Analysis not only turns those factors, which Munby (1978) called constraints, into variables or conditions for the design of innovation but takes them into consideration at the different stages (before, during) of curriculum and syllabus design. This, in turn, makes Means Analysis an ongoing process, which can provide itself with the required information for both determining the project actions/direction in the future and adjusting its own methodology through self-generated information, obtained from experience. Furthermore, this process works at three levels: the classroom, the curriculum/syllabus design and project design (see Figure 5 below). It is a unified methodology for finding out what is appropriate in both curriculum and curriculum project design (Holliday, 1992a).

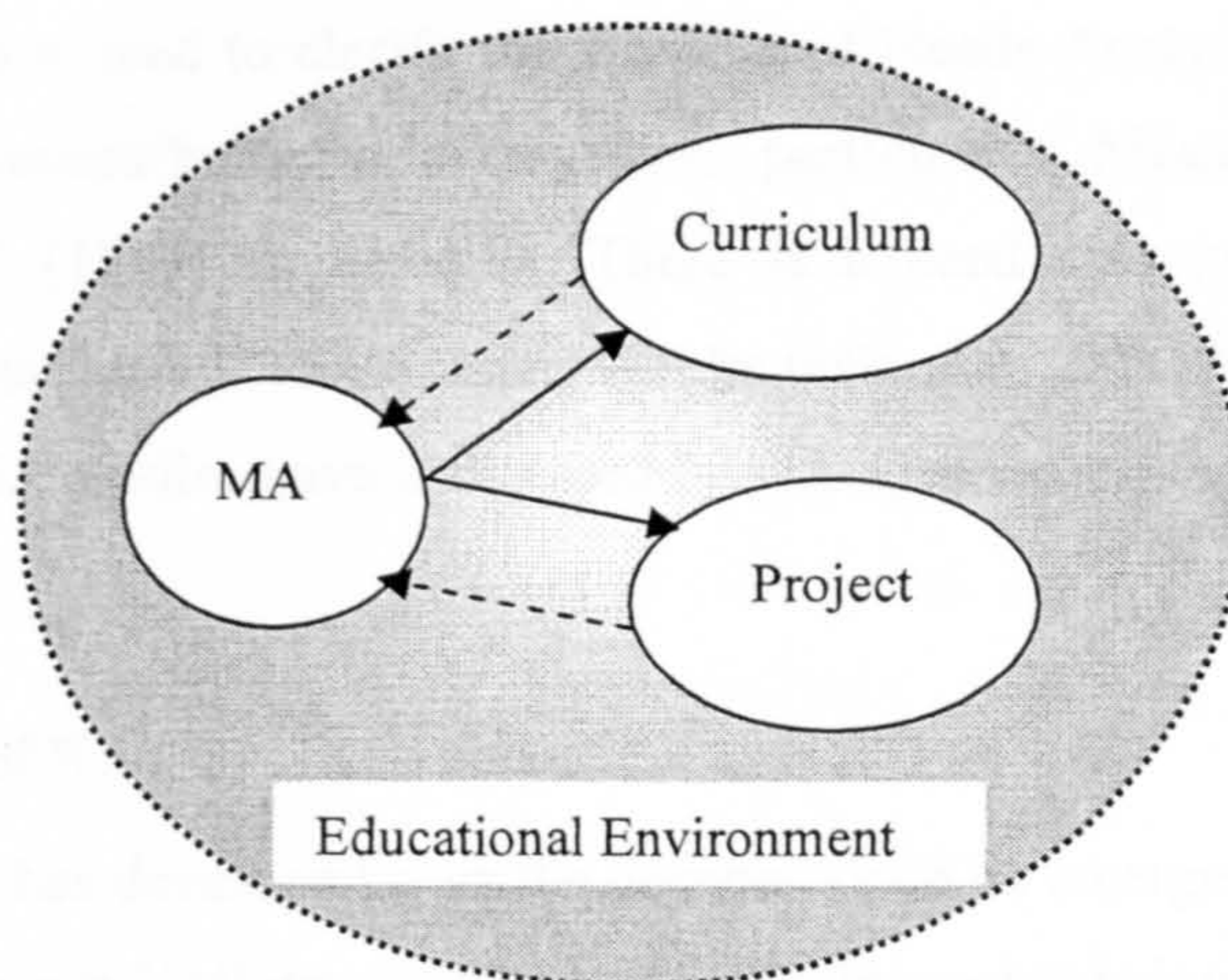


Figure 5: the relationship between between Means Analysis, curriculum design and Project management, as proposed by MA. The lines represent the folow of information.

A successful change has to belong to both the host institution and connect with the real world of all parties within it. The methodology of the curriculum involves the way in which the whole educational process is perceived and implemented. The methodology of the project involves its strategies for action and the strategies for managing that action. Means Analysis provides information as to how the methodologies of both the project and the curriculum can be appropriate (Holliday, 1994).

As previously noted MA like the approaches which came before it values the devices developed by other researchers, for example, NA (analysis of the linguistic features of the target language), Question Generating Instrument QGI (categorising the views of different parties in the setting up of curriculum projects)², Soft System Analysis (the structure of different viewpoints of involved parties in conflict situations). Such tools are utilised by Means Analysis and incorporated as subcategories- called "*lower order investigation devices*" (Holliday, 1992a p 412)- because they address specific aspects of the project manager's job (Holliday, 1992a).

To conclude. The discussion on the approaches to and frameworks of needs analysis reveals the philosophies and educational values that stand behind each of them. It has also shown us the scope and focus of each approach/framework. Yet our understanding of what

². as in Drury *et al* (1986)

constitutes needs analysis and the applicability, or prioritisation of its various components remains unclear. There is a need to clarify the meaning of Needs Analysis by linking the essence of these approaches/frameworks together, particularly Means Analysis and Hutchinson and Waters' (1987) frameworks. There is a need also to point out how prioritisation might be established. These issues will be tackled in 2.5 after considering in 2.4 how some previous NA studies have influenced by NA approaches and frameworks.

2.4. The Literature of NA

The literature of NA that has developed over the decades since its emergence in the 1960s, consists mainly of articles e.g. Holliday (1992a) published in academic journals, such as the ESP Journal and Applied Linguistics; ESP/EAP books e.g. Hutchinson and Waters (1987), Robinson (1980 & 1991), Dudley-Evans and St Johns (1998) and Jordan (1997); Curriculum/course design books e.g. White (1988), Graves (2000); academic research, for example, PhD theses e. g. Kelliny (1994), Qotabah (1990) and Al-Otaibi (1994) and Munby (1978).

2.4.1. Two Important Observations about the Literature of NA

There are two important observations regarding this literature. First, an observation made by Nelson, (2000) that most of the results of language analysis of the later needs-analysis approaches have been firmly kept in-house by the language institutions concerned. Nelson, argues that *"whilst [the] early attempts at needs analysis help and guided teachers to a certain extent by suggesting the possible participants of business communication and even suggesting the type of language that might be needed, they were unable to go into detail. Later needs analysis models did not even do that- models were presented and the results were kept in-house by their users"* (Nelson, 2000 p 50). Examples of this are the language audits of Pilbeam (1979), Berggren (1987), Rasanen (1991) and Lynch, Stevens and Sands (1993) (Nelson, 2000). This situation demonstrates that while the initial focus on the approaches to needs analysis was directed towards providing sound and suitable methods of needs analysis, believed to be of generic applicability and global concern, the actual results are situation-specific (Nelson, 2000). This study contributes to the literature of NA by making the data and results of this needs analysis available for public scrutiny.

As observed earlier, despite the relatively long history of NA and the increasing research and publication, at the level of articles and PhD theses, there is, apart from Munby (1978) no single NA book focusing exclusively on NA, although it has gained significance importance in other more recent works such as Robinson (1991), Jordan (1997) and Hutchinson and Waters (1987). There is, thus, a need to bring the wide and scattered literature together and make it more easily available to the researcher, needs analyst, teacher, course developer and material designers. I think, needs analysis has reached a synthesis phase and an up to date, inclusive book would strengthen the status of NA as an important and valuable domain in ELT.

In what follows, a discussion of some large-scale studies of NA at the level of PhD theses is presented. The discussion will point out how researchers' aims, methods, interpretations and implications are directed to a great degree by the developments in needs analysis, its approaches/frameworks and methodology. The discussion also aims at providing an insight into the development and nature of practical NA research and to link the behaviour and findings of such studies to the present one.

2. 4. 2. Discussion of the Studies

The five studies reviewed in this section were all conducted in the 1990s. They are, therefore, all post Munby, post Means analysis and post Learning-centred approach. The studies used different approaches to NA and applied different methodology in terms of data collection tools and interpretation. The shared feature is that all the studies were conducted to analyse the needs of students learning English in ESP centres. Three studies took place in the Arabian Gulf, the regional context of the present study, so shared information about background realities, students, English teaching and findings exists. It is hoped, therefore, that the present study contributes to an understanding the condition and status of English language teaching in this part of the world, along the line suggested by Swales (1977). Table 6 below shows the aims of the studies, their instruments, participants, findings and interpretations. This will be followed by a discussion of the strengths, drawbacks and implications for the current study.

Table 6: The aims the instruments, participants, findings and interpretations of the studies.

The study	Aims	Instruments	Participants	Findings and interpretations
Qotabah (1990)	"to evaluate English language teaching at the University of Qatar in order to propose a framework based on an ESP/EAP orientation in language teaching and a needs analysis carried out by means of a questionnaire" (Qotabah, 1990 p 259)	* Questionnaire (* preliminary investigation in order to obtain general view of the problem interviews, data of which were not used)	* Language students * Language teachers	* A list of 22 points about the strengths and weaknesses of the programme * A proposal for language course design
Remache (1992)	to diagnose the English language competency and the communicative needs of postgraduate students studying in ESP centres in Algeria. It also attempts to identify the teaching and learning problems that the teachers and students encounter. It finally develops a proposal for an ESP course based on the findings of the study.	Questionnaire	* Language students * Language teachers	* a list consisting of 8 main points: participants, language, purposive domain, setting, interaction, instrumentality, communicative events and communicative key, target level and constraints. * the results were used to design a syllabus to be used in the ESP Centre
Al-Otaibi (1994)	to identify the English communication needs of Kuwaiti soldier students at the Military Language Institute (MLI) in Kuwait	questionnaire	Language students	* The course was inadequate in terms of its input * Suggested 24 activities to be used as a base for new syllabus design
Kelliny (1994)	examining learners' needs including language awareness, assessment and the identification of the value of testing students' learning strategies, beliefs and misapprehensions about language learning in the college of Health Science (Kuwait). It also aims on assessing the most suitable tools of data collection: interviews, observations, diary keeping, questionnaires and standardised tests, for NA purpose with much attention paid to triangulation of methodology.	* Questionnaire * Structured interviews * Observations * Diaries * Proficiency tests	* Language students * Language teachers * Subject teachers	* NA includes LA, aims at bridging the gap between theory and practice. * triangulation of qualitative and quantitative tools must be applied. * Structured/unstructured interviews most effective and efficient * Questionnaires least credible yet reliable
Sardi (1997)	to propose a model for how to translate needs analysis findings into course design procedures. The proposed model is applied to the specific situation of English as foreign language teaching and learning in Hungarian Technical Universities.	questionnaire	* Language students * EFL teachers * Subject lecturers * Representatives of industrial/commercial firms with EFL needs in Hungary	* Presented 7 points relating to the study findings on the students' needs * Suggested that it is essential for the needs analysis to be based on the same framework as the course

Despite being post Munby, two studies i.e. Remache (1992) and A-Otaibi (1994) depended heavily on Munby's (1978) taxonomy of the NA and communicative needs, ignoring new developments in NA contributed by for example, Means Analysis which started to take place as early 1980s (Holliday and Cooke, 1982 and Holliday, 1994) and the Learning-Centred approach coined by Hutchinson and Waters in the mid-1980s (Hutchinson and Waters, 1987). Al-Otaibi (1994) writes that he "*drew heavily on Munby's [1978] work and other similar studies as an instrument for needs analysis to determine the future communicative needs of the... learners*" (Al-Otaibi, 1994 p 320). Remache (1992) used what he called a modified version of Munby's (1978) model to analyse the students' communicative needs. He believed that "*the major purpose of needs analysis is to identify the communicative needs of a particular audience*" (p 428). This view, of course, is not congruent with the role of NA as proposed by Hutchinson and Waters (1987) and the Means Analysis approach (Holliday, 1994) where needs analysis is conceived as a process which helps to understand the nature of the target language (including using it communicatively) as well as learning about students' learning strategies, administrative conditions etc. Rather, Remache, borrowing Munby's (1978) view of the constraints, suggested "*that constraints must be taken into account during the design process. Factors such as time, space and money would compromise the effectiveness of any ESP programme if not seriously considered, the best-designed course in the world could fail if it has not considered the constraints existing in the learning environment*" (p 428). The possible constraints, despite such acknowledgement, were not addressed in a full detail and in a thorough manner. In the data analysis section, they were presented in a shallow way without explaining, for example, their cause, effect or how to utilize them in the course/syllabus design. Such constraints were shown as follows:

8.0 Constraints:

8.1 the level and sector of the three centres: tertiary, government and British Council funded centres.

8.2 the teaching staff in the department

8. 2. 1 total number 12. Most of the Algerian teachers were part-time.

8. 2.2 teachers' qualifications B. A. and above.

8.3 Equipment available- one language laboratory in each centre. One overhead projector, one video and one TV , one micro-processor in each centre.

8.4. class size and timetable

8. 4. 1 average number of students per class: 15 to 20.

8. 4. 2 timetable planned by each centre.

(Remache, 1991 p 313).

Kelliny (1994) and Sardi (1997) are examples of NA studies which try to implement the essence of Hutchinson and Waters' (1987) frameworks by looking at both the students' language use and the language learning process in terms of learning strategies, beliefs and misapprehensions (Kelliny, 1994) or target language needs (wants and necessities), students' motivation for English language learning and students' preference regarding classroom teaching techniques and methods of classroom management (Sardi, 1997). Sardi, further, based his theoretical framework for needs-based course design on Hutchinson and Waters' (1987) definition of the learners' needs, in which they distinguished between target language needs and language learning needs.

In addition, the five studies lack an implementation vision. While some researchers i.e. Remache (1992) and Sardi (1997) used the results to design a suggested syllabus, others, namely Qotabah (1990), Kelliny (1994) Al-Otaibi (1994) did not even do that. For example, Al-Otaibi (1994) did not suggest any syllabus, according to his findings. He left the conversion of the outcomes of the needs analysis into the content of the syllabus to the course teachers and designers in the MLI. Implementation has become an important component of NA in recent years. The importance of constructing an understanding on how to implement NA findings and recommendation in the stages of planning has been emphasized by a number of studies, for example, Wedell (2003), Waters and Vilches (2001), Holliday (1994), Fullan (1991, 2001). The current study takes the implementation of the suggested change into consideration by analysing the implementation needs. These needs will be itemised and discussed in chapter six.

As to methodology, it is astonishing to find that four studies, namely, Remache (1992), Sardi (1997), Qotabah (1990), and Al-Otaibi (1994) depended on one single data collection tool, the questionnaire. Their rationale behind using the questionnaire was its popularity in educational research and practicality and reliability. Al-Otaibi (1994, p 137), for example, maintain that the questionnaire is "*the best instrument providing information relevant to both target needs and learning needs*". Besides that, it did not create an extra workload on the respondent, it was straightforward and easy to fill out and saved the researcher's and respondent's time. In addition, it was the most common technique for investigating language needs when large groups of participants were involved (Al-Otaibi, 1994). The large size of the participants was also the rationale provided by Sardi (1997). On the another hand, Kelliny (1994, p 246) criticized the questionnaire by saying "*the use of the questionnaire proved to be the least credible in spite of the statistical significance of the analysis of its results*". This study, however, triangulates its instruments and sources of information in order to obtain a much more complete picture of the students' needs.

Finally, the analysis of students' target-language needs is a dominant component of the NA studies discussed above. This may imply that language analysis is still seen as a main element when determining students' needs. It has been noted that the focus, in previous studies, was on the macro/micro language skills (speaking, listening, writing, reading, translation) rather than on the register and discourse. The present study perceives the language analysis as a crucial part of NA undertaken in this study in order to identify the target needs of the students in the FYP.

To conclude. The studies reviewed in this section were affected by the development of the needs analysis approaches to very different degrees. Some of them i.e. Remache (1992) and A-Otaibi (1994) depended to a large extent on Munby's (1978) Communication Needs Processor (CNP). Others namely Sardi (1997) and Kelliny (1994), adapted Hutchinson and Waters' (1987) idea of investigating both target and present situations. The questionnaire was the only data-collection tool used by four out of the five studies. Kelliny (1994) used a number of tools in order to examine their suitability as data-collection tools in needs analysis, concluding that interviews are the most suitable, questionnaires are the least, while diary keeping does not suit Arab students in the Middle East. Implementation, which in recent years has become, a dominant phenomenon in NA and change/innovation planning, is completely ignored in the studies discussed above.

Finally, three of the studies discussed i.e. Qotabah (1990), Al-Otaibi (1994) and Kelliny (1994) took place in the Middle East, more specifically in the Arabian Gulf, the regional context of the present study. The present work also contributes to the understanding of English language teaching in this region. There are a good number of similarities in the conditions and status of English language teaching in the countries in which previous studies and the present study take place. For example, the students in this study and in the earlier studies are post-secondary Arabs taking an ESP course. Most of these need English in order to enrol in academic courses, in their native countries, in which English is the medium of instruction. Not only that but some of the findings of these studies are in agreement with those of the present study. For example, Qotabah (1990) finds that there was a lack of cooperation between the ELTU in the University of Qatar and the other faculties as far as the exchange of information and discussion on students' performance was concerned, a situation similar to the FYP, as found in this study.

Based on the understanding of the strengths and weaknesses of the former studies, the present study tries to take advantage of the developments in NA theory by focusing on target language needs and language learning needs and by focusing specially on implementation needs. It also triangulates tools and resources in order to sustain more valid and reliable information.

2. 5. Discussion on the Literature and Approaches

This discussion is concerned with two issues. First, it tries to establish an understanding of what constitutes NA. This is built on the discussion on NA Approaches and frameworks provided in 2. 3 above and the review of the previous NA studies provided in 2. 4 above. NA, as can be understood from the different approaches and different studies discussed above, is too wide and divergent. There is a need for a synthesising view, which this section tries to provide. secondly, it tries to establish an understanding about the possibility of prioritisation of the content and methodology of the NA process.

2. 5. 1. Conceptualising NA

The NA approaches and frameworks discussed above each look at NA from a particular perspective. What is needed then is a synthesis. That is, a view which brings the different components of NA together in a systematic way. From my point of view, the traditional classification of NA into the Present Situation Analysis and the Target Situation Analysis is inadequate. Likewise, the Hutchinson and Waters' (1987) frameworks and the Means Analysis do not provide a precise picture of NA. I believe this to be so, for at least two reasons.

2. 5. 1. 1. The Position of Language Analysis in the Post-Munby Era

In broadening the focus of NA, the Post-Munby Approaches/frameworks, although they did not ignore language analysis, reduced to different degrees its influence in NA . This was not because of deliberately ignoring the role of language analysis but because the focus shifted from description of language alone to considering of other wider factors in the learning process. As explained in 2. 3. 4. the skills and strategies approach presented an *“attempt to look below the surface and to consider not the language itself but the thinking processes that underlie language use”* (Hutchison and Waters, 1987 p 13). Therefore, *“a focus on specific subject registers is unnecessary in this approach, because the underlying processes are not specific to any subject register”* (Hutchison and Waters, 1987 p 13). Means analysis, although also utilising analysis of the linguistic feature of the target language (alongside other devices) views them as subcategories- called *“lower order investigation devices”* (Holliday, 1992a p 412). *“Within the means analysis, the needs analysis becomes a lower order investigation device which the means analysis uses and controls according to the needs of the situation”* (Holliday, 1994 p 199). Means analysis advocates frankly state that *“the needs analysis [Munby's model] should be treated, not as a blueprint, but as a heuristic device which may or may not be applied in full or in parts”* (Holliday and Cooke, 1982 p 137). The Hutchinson and Waters (1987) frameworks aim, however, to enlarge the picture by including not only language analysis but also the analysis of learning situation factors. They indicate that *“it is unnecessary to analyse language features in detail before the materials are started. A general syllabus outlining the topic areas and the communicative tasks of the target situation is all that is required at the beginning”* (Hutchison and Waters, 1987 p 92). Detailed analysis *“produces the restricting influence on the methodology”* and *“stifle creativity”* (Hutchison and Waters, 1987 p 92 and 93).

In my opinion, however, the role of linguistic analysis at the early stages of NA and course design should not be underestimated and should not be seen as secondary issue. A case for a significant role for language analysis has recently been made for Business English, a relatively new discipline within ESP, emerging in 1990s. Pointing out this major development, Dudley-Evans and St John (1998, p 31) write, "*One major change has been the emergence of Business English as a major strand of ESP teaching. Early ESP work was dominated by English for Science and Technology... However, in the 1990s... the largest area of growth is Business English*". Specialists in Business English e.g. Nelson (2000) argued that the literature on Business English is largely concerned with practical issues of teaching, rather than with analysis of the features of its language. Arguing for the important role of language analysis in Business English, Nelson (2000, 129) criticised Hutchinson and Water's (1987) "*focus on the generality of language, rather than on the specific lexis of a discipline*". He argued "*...as the term ESP does imply a specificity of purpose, the key lexis of a given discipline must play a central role in the teaching process*" (Nelson, 2000, p 129). Therefore, his PhD thesis offered a thorough analysis of the key lexis of Business English aiming at integrating its findings into Business English materials and courses. In addition, as was seen in the PhD theses cited in 2. 4. 2. above, there is a tendency among researchers i.e. Qotabah (1990), Remache (1992) and Al-Otaibi (1994) to apply a linguistic analysis of some kind. This implies that linguistic analysis is still a relevant aspect of NA research despite the position of this phenomenon in some post Munby approaches.

Additionally, linguistic analysis, from the different schools of language analysis like Systemic Functional Linguistic (SFL), Exchange Structure Analysis, Genre Analysis Approaches, Critical Discourse analysis and Contrastive Rhetoric, continue to be used world-wide in developing teaching materials and language course design (Coffin, 2001 and Burns, 2001). For example, SFL "*has develop analytical tools for looking at spoken and written language both in terms of how sentences or clause are organised and how sentences combine to create whole texts*" (Coffin, 2001 p 94). SFL is best known in Australia, although it is used in many parts around the world, where it is employed in ES/FL teaching both within and beyond primary and secondary education. In EAP courses SFL tools are used in needs analysis, course design and language learners' assessment (Coffin, 2001). Exchange Structure Analysis complements SFL by focusing on spoken discourse. Sinclair and Coulthard (1975) identified patterns of discourse at different ranks within the classroom ranging from the smallest unit (act) to the largest (the lesson). They

explained, as well, how each unit relates to the grammatical unit of clause. The findings of Exchange Structure Analysis have implications and opportunities in ELT (Burns, 2001). *"Not only does such analysis increase students' linguistic repertoire, but it also equips them with skills to renegotiate their positions in encounters outside the classroom"* (Burns, 2001p 132). As to genre analysis, *"both SFL theorists and applied linguists working in the fields of ESP and EAP believe that the explicit teaching of generic structures and their associated grammatical features can help learners (particularly non-native speakers of English) to master the functions and linguistic conventions of texts necessary for successful participation in a range of disciplines and professions"* (Coffin, 2001 p 113). Australia is the educational context in which genre findings are currently is used. Teacher, first, models target genres and then there construction by learners, as basis for learners' independent constructions. *"The model is designed to develop both control as well as critical reflection on the genres that are relevant to students' needs"* (Coffin, 2001 p 113).

Implications for the present study

Based on on the above discussion of theoretical assumptions and practical implementations of linguistic analysis, the current study maintains that *linguistic analysis of the target language is a main component of the NA process*. Based on such an assumption, the present study attempts to conduct as part of its data collection a thorough analysis of the texts commonly connected in the technical departments in the Colleges of Technology. It aims at finding out about the linguistic features of such texts in order to use their lexico-grammatical and communicative features as a basis for course design for the FYP. A genre-based approach and a questionnaire will be utilized to undertake such analytical activity.

2. 5. 1. 2. New Developments in NA

Second, the new developments in NA research regarding analysing the implementation needs and evaluation of NA require a reconceptualisation of these two sub areas within the process of NA. Markee (2001) affirms that literature in the post-communicative approach era witnesses a shift from emphasis on course design to implementation and evaluation. So Both implementation and evaluation are considered from the outset in the literature of course design and NA e.g. Wedell (2003), Waters and Vilches (2001) and Holliday (1994).

2. 5. 1. 2. 1. Implementation Needs

As for implementation, the failure of many ELT projects, particularly Western-aided projects implemented in the Third World (Fullan, 1991; Holliday, 1994; and Wedell, 2003),

has directed researchers and practitioners' attention towards searching for reasons of failure and opportunities for success. Practitioners are now confident that coming out with a list of linguistic features of the target language, considering the administrative and pedagogical factors, and suggesting sound course content or even a new syllabus does not guarantee successful implementation. Many researches on innovation/change/new projects implementation have appeared throughout the last two decades. Some of such research is Holliday and Cooke (1982), Holliday (1994), Fullan (1991), Coleman (1996), Bishop (1986), Markee (1997 & 2001), Carless (2001) Wedell (2003), Waters and Vilches (2001). The literature on implementation *"provides curriculum specialists, materials developers, and teachers with a coherent set of guiding principles for the development and implementation of language teaching innovations. Furthermore, it supplies evaluators with criteria for retrospective evaluations of the extent to which these innovations have actually been implemented. [... It] provides a unified framework for conceptualising both the development and evaluation of innovations in language teaching"* (Markee, 2001 p 118).

It is also maintained that analyst/project planner needs to consider from the outset how to implement his/her suggested model or syllabus *"by catering appropriately to a range of innovation implementation needs" which take in account "those who will actually design and implement the innovation, and those who will form the majority of its end-users"* (Waters and Vilches, 2001, p 133) e.g. teachers, administrators, manager, students. Wedell (2003) asserts that before finalizing their plans, planners need to identify and find out what support/by whom/for how long teachers need to make the transition; and the effect of the new change on present practice and what adjustment is required.

Waters and Vilches (2001) have developed a mode for identifying implementation needs. It is a two-dimensional matrix, the vertical dimension is concerned with the levels of need and the horizontal looks at the areas of need. The distinguishing feature of this model is that it considers the end-user as early as the planning stage by involving them in what is called foundation-building needs, in which an initial conception of a proposed innovation is established by both the change planners and the potential change users e.g. teachers, managers, trainers (Waters and Vilches, 1998). This initial need is followed by the advanced potential-realizing needs in which ownership of the significant features of the innovation is established (Waters and Vilches, 2001 and 1998). *"this is to do with ensuring that the process by which the users actually test the worked-out innovations is monitored*

and supported in such a way that the necessary level of personal, practical understanding and expertise is built up" (Waters and Vilches, 2001 p 134). This approach to implementation needs analysis is important for this study. Both the decision-makers at the top of the administration hierarchy and teachers need to be initially familiarised, at the foundation-building stage, with the findings and recommendations of this study. Part of this has been done during the data collection period but the major task will be carried out when the study finishes. This study concludes, therefore, that analysing implementation needs is a major component of the process of needs analysis, see Figure 7 p 75 below .

2. 5. 1. 2. 2. Evaluation

Regarding the evaluation, analysts and course designers are now confident that neither needs identification nor change implementation is the end of the story for innovation implementation. A new syllabus can fail because of a deficiency in the needs analysis process, mistakes in implementation, an ineffective evaluation process etc. *"Any part of the process of course development can be evaluated, including the assumptions about and analysis of students' needs or backgrounds, goals and objectives, materials and activities, means of assessing students' progress, student participation, students' roles, and the teachers' role"* (Graves, 2001 p 191). Therefore, evaluation has become an integral part of needs analysis. This view is shared by the most dominant approach and frameworks to the needs analysis: the Means analysis approach and Hutchinson and Waters (1987) frameworks. With regard to the Learning-centred approach, it is made explicit that *"course design is a dynamic process. It does not move in a linear fashion from initial analysis to completed course. Needs and resources vary with time. The course design, therefore, needs to have built-in feedback channels to enable the course to respond to developments"* (Hutchinson and Waters, 1987 p 74). Similarly, Means Analysis declares that *"there is no before, during and after, but only a constant state of evaluation and action. The change which this constant process directs and monitors is not a new once-and-for-all package but an ongoing dynamism which, if effective, should become a permanent feature of the host educational environment"* (Holliday, 1997 p 203). Evaluation, therefore, should become an integrated part of the NA process. It should be a continuous process starting at the design phase of NA and keep on going as the NA moves from one phase to another. This configuration of evaluation with NA and other phases of course development is shown in Figure 6 (the arrows show the flow of information).

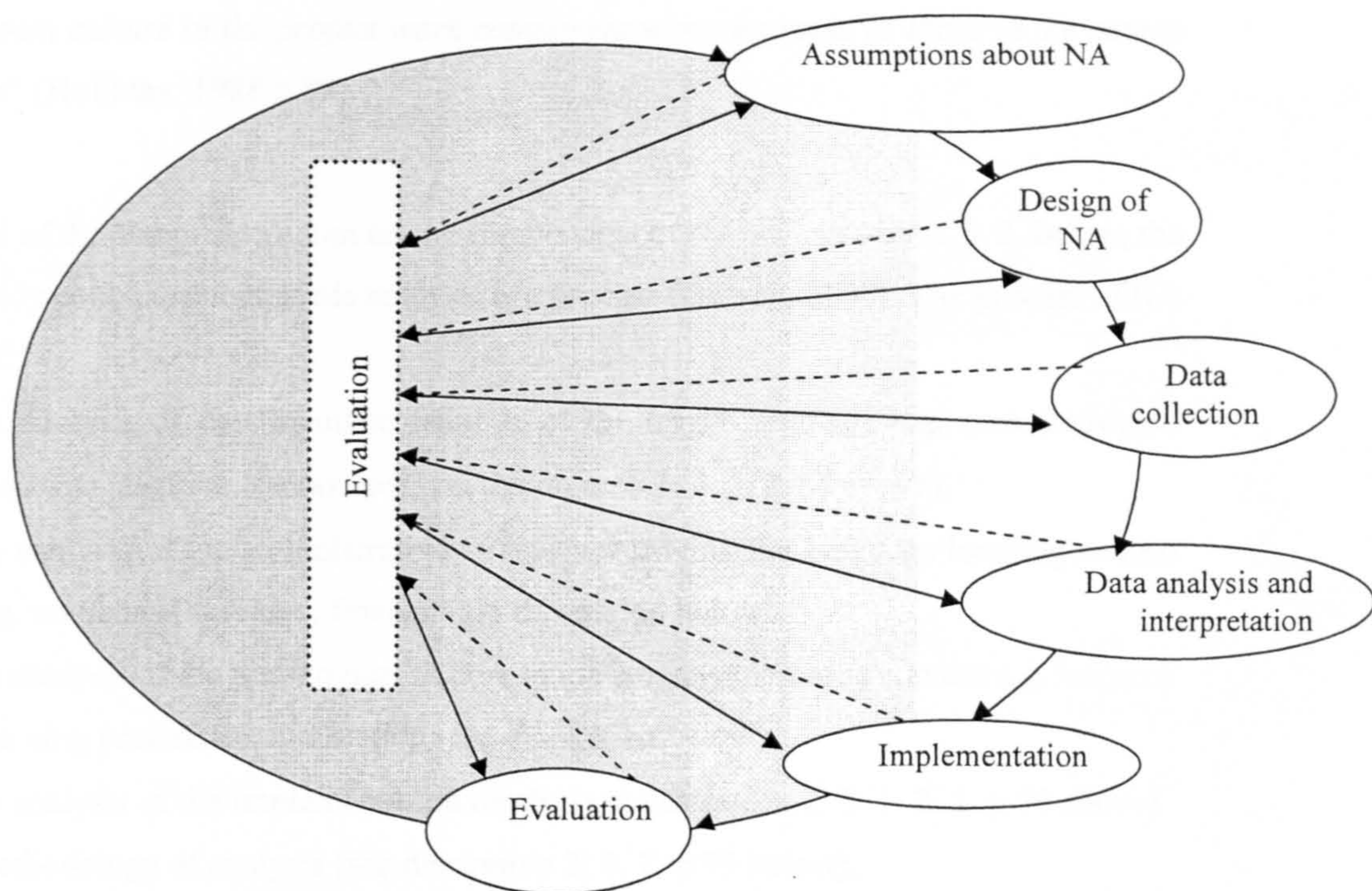


Figure 6: the configuration of evaluation in the process of NA and other components of course design

Holliday (1988) provides an example on how evaluation can be used as an integrated part of the NA process. It describes how an activity was used as an evaluation device for evaluating students, teachers and material performance. The need to use the catchment activity became clear during the implementation process. During evaluation stage 1, the project advisors noted that the prescribed course guide was not followed by the teachers and students. In evaluation stage two, the advisors embarked on participant observation which enabled them to identify the problem. In evaluation stage three, an in-service workshop was organised aiming at solving the teachers' problems identified at evaluation stage two.

This example, not only show how evaluation can become an on-going process but also how a single component of the course can be utilised as an evaluation device of a number of other components. It *"mirrored the course in three ways. First, it was designed to practise skills taught in the rest of the course. Secondly, the materials (worksheet) encapsulated a methodological approach common to the other course materials. Thirdly, the features of*

the classroom culture in the project work component were the same as those in the course as a whole" (Holliday, 1988 p 83).

In the light of the above discussion on the components of NA and also on 2. 5. 2. below, the present study concludes that needs analysis is a process (Graves, 2000). The process of NA consists of:

- an analysis of the linguistic features of the target language e.g. communicative functions, lexicon, syntax (see discussion in 2. 5. 1. 1. p 68 above),
- an analysis of the administrative factors influencing the language learning context e.g. number of teachers, finance (see discussion below),
- an analysis of the pedagogical factors in the language learning context e.g. learners' learning preference, motivation (see discussion below)
- an analysis of the implementation needs, (see discussion 2. 5. 1. 2. 1. p 70 above)
- methodology of analysis (see discussion 2. 5. 2. p 75 below).
- and evaluation of the process (see discussion 2. 5. 1. 2. 2. p 72above).

The distinction between administrative and pedagogical factors in the language learning context is based on the present study's findings that due to my insider knowledge that in the FYP context non-pedagogical administrative factors such as finance, resources e.g. books, self-learning material etc. would not need investigation in such a large-scale study. The study, therefore, focused on the pedagogic/linguistic issues rather than the administrative ones (see 2. 5. 2. and 2. 6 below). In addition, the focus in all the studies surveyed in 2. 4. 2. above was on the pedagogical topics rather than administrative ones. Therefore, it is useful in any definition of NA to distinguish between pedagogical factors which gain more attention in academic NA studies and the administrative factors which are some times not so eminent to study, though they can be critical. These components of NA are shown in Figure 7 p 75 below.

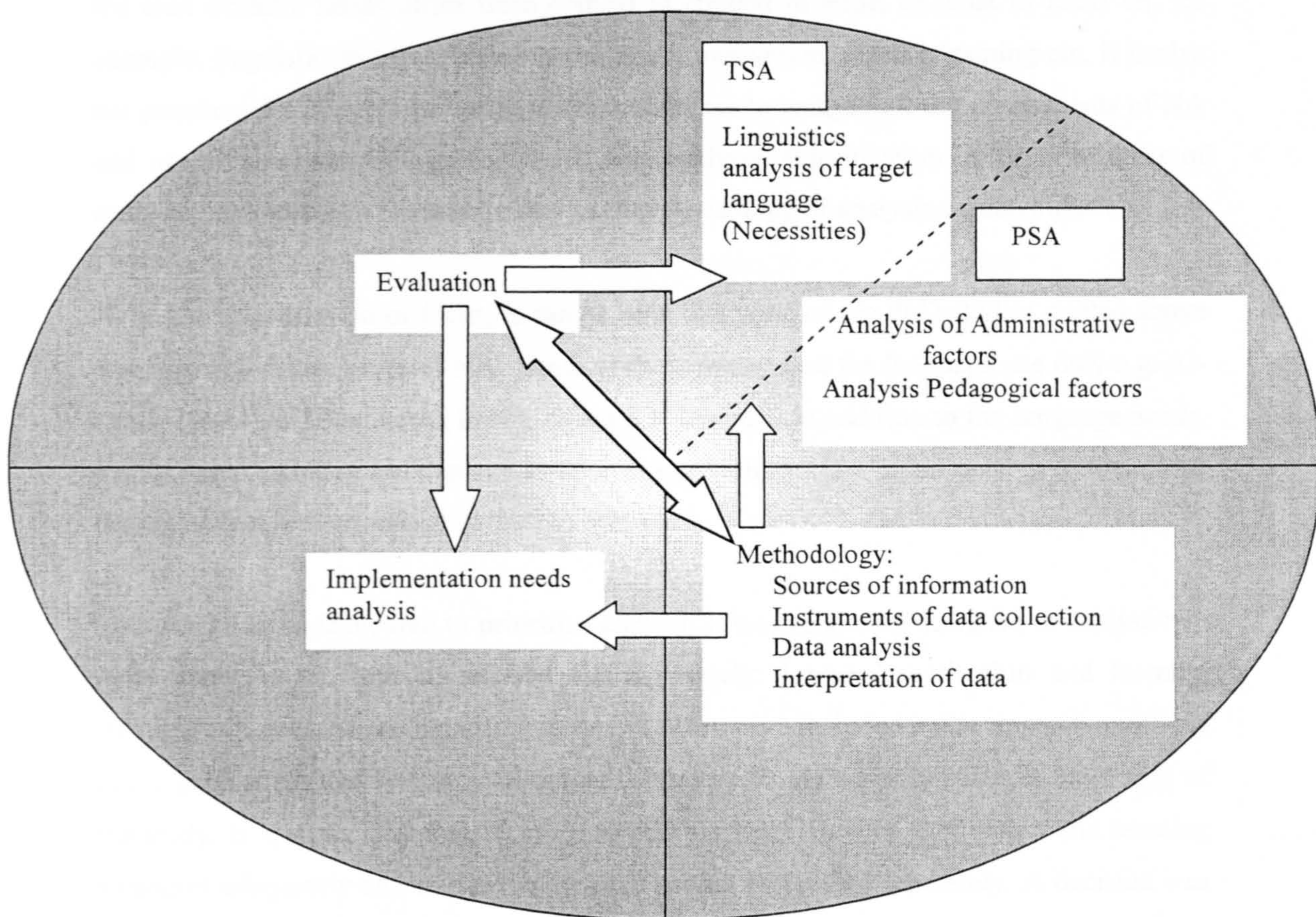


Figure 7: the components of NA

The figure shows that the process of NA consists of four major components: PSA/TSA (analysis of target language, and the pedagogical and administrative factors in LT context), methodology, analysis of implementation needs and evaluation. The arrows in the figure show the staged interconnection between the components of the process. For example, there is a methodology for analysing PSA and TSA needs, a methodology for implementation and a methodology of evaluation. Similarly, there is an evaluation of methodology, an evaluation of implementation and an evaluation of PSA and TSA needs analysis.

2. 5. 2. Prioritisation of Content and Methodology

There is a need for prioritisation of content and methodology. The approaches/frameworks of NA, while providing an insight about the areas e.g. strategies, interests, beliefs, learning strategies etc that should be considered in NA research, do not say enough about the

prioritisation of such components. This study argues that prioritisation is inevitable. That is the case because needs differ from context to context in terms of what to focus on, for example, linguistic features, learning strategies, motivation, teacher training etc. It is also not practical for a single research and/or researcher to analyse all the components of NA and use all the methodology e.g. tools, data analysis. Prioritisation in terms of areas of analysis, instruments of data collection, and methodology of analysis is unavoidable.

As to the prioritisation of focus, it can be seen that none of the PhD studies quoted above investigated all the issues of NA. Some of them focused on the language use only e.g. Al-Otaily (1994) and Remache (1992), others e.g. included in addition to the language needs, matters such as learners' language awareness e.g. Kelliny (1944), but none investigated all the topics that are mentioned in the NA literature.

This study has endeavoured to prioritize content. It was originally designed to analyse two more areas, apart from its present topics, namely: learners' motivation and learning strategies. Four questions regarding these two areas were included in the research questions in the draft submitted for up-grading (see Appendix 9). At an early stage in the design of the study, it was decided that in order to address both learners' motivation and learning strategies adequately and satisfactorily, each should be studied separately. A decision was therefore made to exclude these two issues from the current study. In addition, I felt confident that non-pedagogical administrative factors such as finance, resources (e.g. books, self-learning material etc.) would properly be addressed by the administration personnel in the colleges, so such issues were not factors that needed investigation in such a large-scale study. Therefore, the current study focused on pedagogic/linguistic phenomena rather than administrative ones.

The present research, therefore, provides an example of the way in which there is a need to prioritise the focus of the study in terms of which aspects of Needs to investigate from among all those suggested in the various approaches of NA.

What is required is not only the prioritisation of areas of investigation but also that of methods and instruments of analysis. As to the prioritisation particularly in terms of instruments and resources, there is evidence that some instruments work better than others in particular contexts. Kelliny (1994, p 247), who compared a number of research

instruments in terms of effectiveness in the NA process, finds *"that the use of diaries does not fit in the Arab/Middle Eastern culture which resulted in a relatively meagre crop of data compared to the effort exerted and the time consumed"*. Because the Arab students were not familiar with diary keeping and because of their low English competence does not help them to write extended meaningful information, this tool does not work properly. Kelliny(1994, p 246), concludes that *"the use of diaries was the least productive and effective as it failed to achieve its purpose for cultural reasons"*. Therefore, he argues for the use of more productive, valid and trusty instruments such as interviews and observations. Prioritisation of instruments, like that of NA issues, should be left to the researcher and the specifications of the contexts in investigation. The analyst should be able to decide to a certain extent what and how to analyse. Therefore, this study recommends that methodology should be considered at the outset of the NA procedure, concluding that it is a major component of NA process as shown in Figure 7 p 75 above.

2. 5. 3. The Researcher as Insider/Outsider

There is a need, actually, to distinguish between the analyst/researcher as an insider and outsider. In the third world projects discussed in, for example, Holliday (1994), Holliday and Cooke (1982), Kennedy (1987) Waters and Vilches (2001), Wedell (2000 & 2003), and Coleman (1996) the analyst is framed as an outsider. He or she is a member of a British, American, Australian, or Canadian developments aid programme. Such programmes were funded by one of the above-mentioned countries and frequently managed by the donor government employed as a change agent (Fullan, 1991, Kennedy, 1987, Holliday, 1994 and Wedell, 2003). In such cases the analysts' task, then, is two-faceted: familiarisation (Waters and Vilches, 2001) in order to become adequately accustomed to the project/innovation environment/situation; and the actual task of course development. These two-facet tasks of an outsider are shown in Figure 8 below.

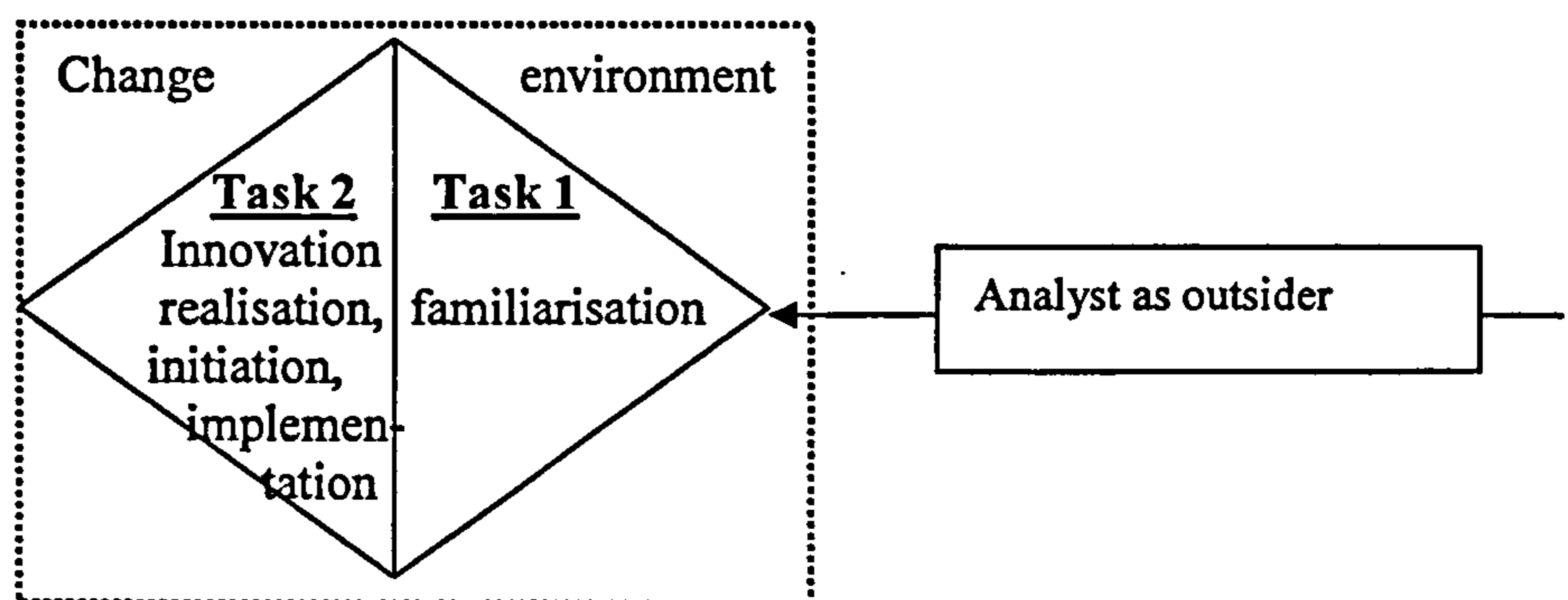


Figure 8: the two-facet task of an outsider analyst in a foreign context

The insider analyst/researcher on the other hand will have gained familiarisation during his pre-research work with the job institution in question. He or she should have known most of the biographical characteristics of the learners and teachers e.g. learners' age, gender, previous education during his/her years of work in the institution. He or she should also have become familiar with what Holliday (1994) called 'deep action phenomena', the obscure, deep, real life characteristics of the target institution that a foreigner needs to know about and that can not be obtained at the formal, official, surface action-level. Understanding such phenomena requires integration with the local institution. Integration, has to be worked for by an expatriate change agent, but is naturally sustained by a member of the local community through day-to-day experience and personal relationship with the other members of the teaching, administration staff and students. The local analyst/researcher's task, then, is unlike that of the outsider's as is shown in Figure 8. The local analyst/researcher's task is shown in Figure 9 below. Though of course a problem with "insider researchers" can be that the researcher does not notice important features of the situation because he/she is too familiar with them. While the outsider researcher needs to go through a process of familiarization, the insider researcher needs a parallel process of "de-familiarization" or "estrangement", what ethnomethodologists call "making the familiar strange".

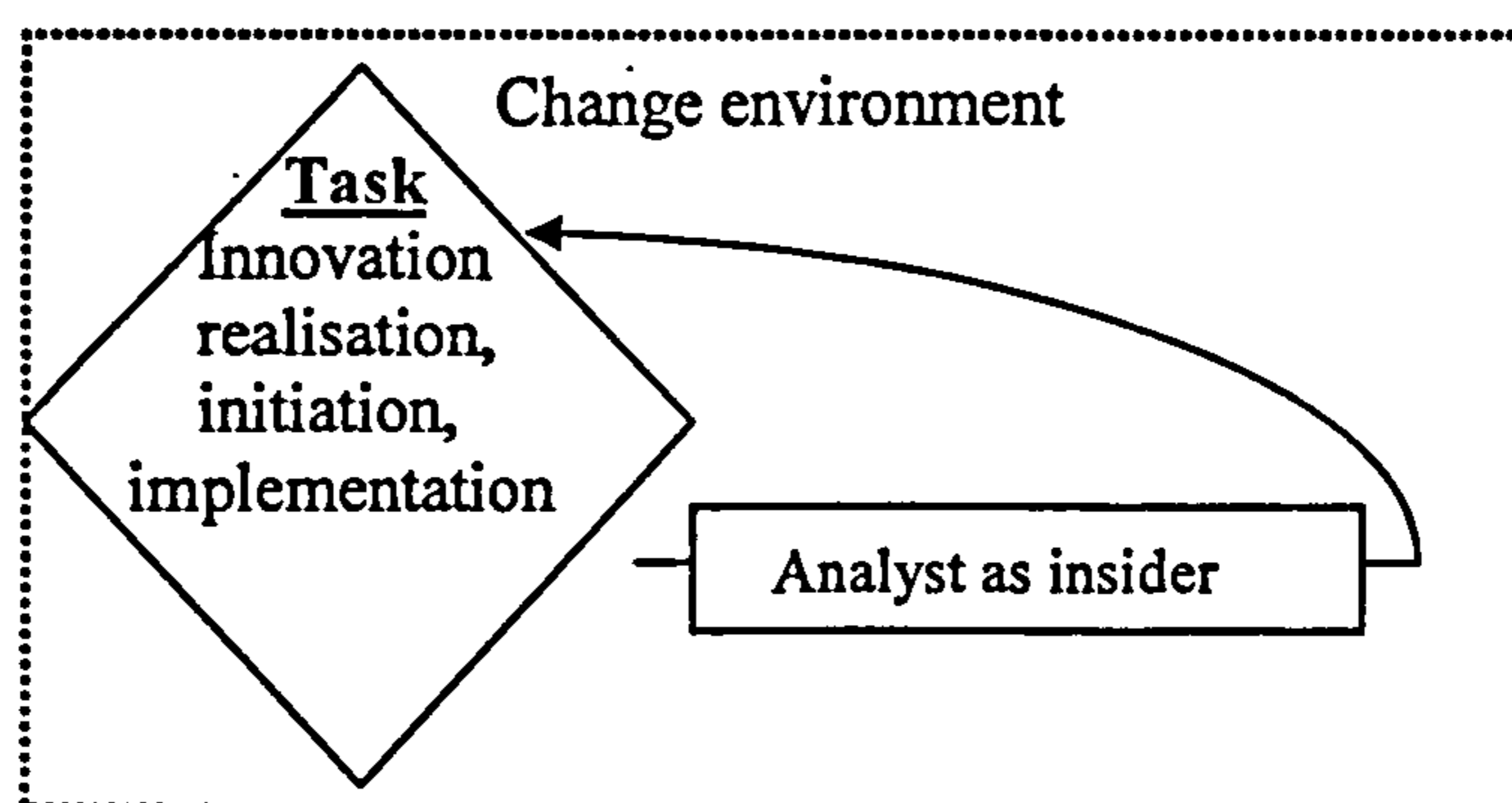


Figure 9: the task of an insider analyst

As to implementation issues, much of the literature, particularly Waters and Vilches (2001), Holliday (1994), Wedell (2003) talk about top-down imposed educational change, in which decisions about it are taken by the decision-makers at the top of the educational hierarchy.

The discussions and agreements in this type of change take place among the top management (Waters and Vilches, 2001). The end-users, if not catered for properly during the planning phase, would modify the change (Bishop, 1986), resist (Fullan, 1991) and/or reject it (Holliday, 1994). Therefore, the concern is on how to involve the end-users from the outset in the development of the change so that they accept it throughout.

This study reports a different and relatively unusual case in the NA literature. The present researcher is an insider to the end-users, already acquainted with the deep and surface realities of the Colleges of Technology and FYP (see Figure 4 p 58), and it is the end-users who have encouraged me to carry out the research. The potential innovation comes from them. On the other hand, I am an outsider to the decision-makers at the top of the hierarchy and perhaps to those in the technical areas. What the decision-makers, the other parties in the colleges and myself agree on is the need for improvement. My role in regard to the needed improvements is to investigate the situation to find out the possible drawbacks and suggest recommendations for change. I have done the investigation relying on my background knowledge as an insider. When it comes to the implementation of the recommendation, I will become an outsider to both the decision-makers at the top of the hierarchy and the teachers/students/administrators in the implementation field, which is the Colleges of Technology. This is so because in a top-down, establishment like the Colleges of Technology, the decisions are taken top-down. Since I belong to the ranks of the teachers, I cannot implement this study's recommendations unless approved, agreed and decided on by the decision makers. Therefore, the substance of Waters and Vilches' (2001) Foundation-building and Potential-realising components of implementation model has to be done at two levels in this study: the decision-makers' level, and teachers' level. It is necessary to do so at the first level in order to have something to forward for implementation. Because of the autocratic nature of the establishment, neither I nor the colleges' administrators or teachers can make any change to the existing practice. Decisions about any changes must first come from the higher administration. Accepting the change at the higher level will also guarantee support, financial and moral, which will flow from the top to the implementation field. Only after that, can the pre-implementation process be taken to the implementation field. Although during the data collection process part of the end-user involvement has been done by asking the teachers and students' to evaluate present practice and suggest ideas for improvement, the actual findings and recommendations for change will not have been discussed with them yet. What remains is

the unfinished task of the study. That is how to market the study: its findings and recommendation at both the decision-making level and teachers, administration and students level. This point will be discussed further in chapter 6.

Another advantage of my position as an insider researcher is that I am able to avoid culturally-biased behaviour in the research methodology. Nunan (1992, 144) points out that *"... there is considerable cross-cultural variation concerning the type of information which can be sought by a stranger. Major differences may exist between the culture of the interviewer and that of the respondent, and these differences may affect the responses given"*. Being an insider, the researcher should be able to avoid discussing the topics that are regarded as highly sensitive by the local community. The present study, for example, avoided asking the interviewed teachers and students about Ministry policy or raising connected questions, since I know that this is an area that teachers do not want to talk about, because in the third world people are more reluctant to criticise government plans. Yet when there is a danger of not obtaining a full picture or interpreting the responses I receive through my own experience, more detailed explanations are sought from the respondent.

2. 6. Implications of all the above for the Present Study

Present Situation Analysis (PSA) and Target Situation Analysis (TSA) are used to address an analysis of learners' needs in the language course and subject course or work place, respectively (Jordan, 1997; Robinson, 1991; Kelliny, 1994; West, 1994; Graves, 2000, Hutchinson and Waters, 1987, Chia and Olive, 1999 and So-mui and Mead, 2000). Because there is a relationship between PSA and TSA some specialists, for example, (Robinson, 1991) think that NA may be seen as a combination of PSA and TSA. For this study, both situations the PSA and TSA are important. They are complementary to each other. Information gathered from FYP (PSA) is used alongside that gathered from technical departments (TSA) to complete the picture of learners' language needs in technical studies and rethink the FYP to make it more effective in fulfilling its purpose.

The models and frameworks of NA available in the literature showed a great deal of similarity in the questions which can be asked in TSA and PSA. For example, Hutchinson's

and Waters' (1987, p 59 and 63) frameworks identified six main questions, as shown in Table 5 above. The questions, PSA and TSA, focus on seven points:

1. the purpose of learning/using the language
2. the learners
3. the context of learning/using the language
4. the language
5. the language-learning process
6. the available resources for language learning
7. the subject course.

In the light of this theoretical orientation, the present study regards the technical courses (IT, Business and Engineering) as its target situation. It focuses on the teachers and students in terms of their understanding of the purpose of the FYP and the learners' language needs in technical studies. It also investigates the teaching material and teaching context in the technical departments in order to understand the language uses associated with them in terms of syntax, lexis, skills, texts, genres. It also explores the teachers' and students' satisfaction with the language course. The study considers the FYP as its present situations. The FYP teachers' and students' perceptions of purpose, objectives and language needs are investigated. The teachers' and students' satisfaction/dissatisfaction with the FYP, including content, teaching material, organisation, methodology is also examined. The information this needs analysis research gathers and whether it is TSA or PSA is shown in Table 7 below (√= the information is applicable to the situation):

Table 7: The topics about which the study collects information either from PSA and/or TSA.

PSA	Type of Information	TSA
√	1. Personal information about the learners: age, gender, socio-cultural background. (this information is already available and provided in chapter 1)	√
√	2. Purposes students need English for, as perceived by stakeholders e.g. the learners, teachers.	√
√	3. Perceptions on the objectives of the language programme.	√
	4. Language skills and sub-skills which are employed in the technical studies: IT, Business and Engineering;	√
	5. Linguistic features (semantic and lexical) of the English used in the technical studies: IT, Business and Engineering;	√
√	6. The stakeholders' perceptions of learners' weakness/strength and criticism of the language programme.	√
	7. Material used in the subject course (Textbooks, audio/video) (commercial or in-house).	√

2. 6. 1. Necessities and Lacks

Necessities are *“the type of needs determined by the demands of the target situation; that is, what the learner has to know in order to function effectively in the target situation”* (Hutchinson and Waters, 1987 p 55). The use of language in the target situation, then, is the main phenomenon when necessities are considered. The identification of the needs of the students of Technical Colleges, Oman, is one of the targets of this study.

What exactly to look at when analysing the necessities depends on different factors, one of which is the context. The influence of context is obvious in So-mui and Mead's (2000) analysis of textile and clothing traders' communication behaviour. Because Hong Kong is an international trading centre, and textile personnel need to communicate with international agents, the researchers included in their investigation *“The countries with which business is conducted”*- 46 different countries. This topic might not be important when investigating the workplace of the graduates of the Colleges of Technology, in Oman,

as most of them work in companies which operate locally. So, for the purpose of this study the necessities for the students of the colleges of technology in Oman are limited here to the language structure, vocabulary, functions, skills and sub-skills the learners have to know in order to function effectively on the technical courses- IT, Business and Engineering.

Lacks, also understood in terms of ‘language proficiency’ (West, 1994), are the necessities that the learner lacks. In other words, lacks refer to the language activities that the learner needs to carry out when he/she moves to the target situation but does not have the proficiency to do at the present time. So, the learner needs instruction in the target language in order to obtain what he/she lacks. By measuring what these learner knows about the necessities, the course can provide the learners with the missing ones (Hutchinson and Waters, 1987). The study aims at identifying the FYP learners’ necessities. The learners’ lacks of such necessities can be identified by developing assessment tools such as a placement test and end of term tests. Recommendations for the improvement of the assessment system in the FYP in order to make it more capable of identifying the stated needs is provided in 6. 6. below.

2. 6. 2. Conflict and Inconsistency of Needs

Conflict in the NA, especially in ESP/EAP, may result from the contradictory perceptions of the many bodies i.e. teachers, learners, graduates, employers etc. who are involved in the analysis. Conflict may also exist because of the nature of the needs *per se*.

Learners’ involvement in analysing their needs (of the present or target situation) may result in the interference of subjectivity, because the learners’ view of their lacks and necessities might not always reflect their actual needs. **Wants**, also called **subjective needs**, is a term used to refer to learners’ subjective perception of their aims in taking the language course and their expectation of what to use the language for in the future (Hutchinson and Waters, 1987). The actual lacks, wants and necessities, on the other hand, are called ‘**objective needs**’ (Brindley, 1989). The phenomenon of subjectivity and objectivity is obvious when discussing the learners’ perceptions of their purpose(s) in studying English in the FYP, as will be discussed in (4. 3. 2.).

So, it is very important for the analyst to decide whose needs to give priority to (Sardi, 1994). There is a belief that there is no clear-cut answer as to how the conflict between

learners' views and other stakeholders' views e.g. teacher and, employers, can be resolved. This, as Hutchinson and Waters (1987) suggest, should be left to the particularities of the context. This study tries to overcome the conflict by: first, deciding that the purpose of learning English in the FYP should be to enable the students to study in the technical course. This disregards (but not ignores) other purposes pointed out by the students, such as need for English to travel or to help young brothers/sister learn English. Second, within the technical course, learners' needs are investigated by more than one tool. For example, although the teachers and students were asked in the interviews to indicate their language needs, classroom observation and material analysis helped to decide the actual language uses in the technical classroom.

As to the nature of the needs, of course, they do not remain consistent but are subject to change over time (Coleman, 1988). Thus, in the literature of needs analysis, terms such as 'long-term needs' and 'short-term needs' are concerned with this idea. The analyst, course designer or teacher, therefore, has to make a decision on how to deal with changing needs. It is advisable to consider the long-term needs before the course starts and build the syllabus around them because they are likely to stay more stable throughout the target language course (Sardi, 1997). Others suggest conducting an on-going needs analysis to up-date the knowledge about the changing needs (Richterich, 1983). Sardi (1997, p 49) justifies this suggestion on two grounds. *"One is that it appears to be rewarding from the point of view of motivation to investigate learners' changing needs periodically... . The other point is that learners are often unable to articulate their needs in the initial stages of the target language course"*. Thus, this study focuses on long-term needs, as discussed in (5. 4) and recommends an on-going evaluation of the FYP students' language needs (see 6. 7. below).

To conclude. this study focuses on the language needs defined as to the activities and sub-activities, skills and sub-skills, genre and linguistic features namely vocabulary and grammar which are required to support students' academic use of English language in the technical courses (IT, Business and Engineering). These needs can be classified as the necessities and objective needs of these students. Finally, these needs are analysed by conducting a combination of TSA and PSA in which information about the learners, the subject course, the teaching material, the teachers' and students' satisfaction with the

language course are gathered. The methodological aspects of collecting and analysing such data are discussed in the forthcoming section.

2. 7. The Methodological Aspects of Needs Analysis

The methodology of needs analysis is concerned with the means of data collection, sources of information, triangulation of techniques and sources as well as data analysis and interpretation. The purpose of this section is to examine the rationale for the methodology of NA employed in this study.

2. 7. 1. Triangulation of Techniques and Sources

“Triangulation may be defined as the use of two or more methods of data...” (Cohen *et al*, 2000 p 112). It strengthens a study, because relying on one method may bias or misrepresent the reality of a given situation. Therefore, triangulation is strongly recommended in needs analysis studies (Jasso-Aguilar, 1999 and Kelliny, 1994). Kelliny (1994) recommends the use of a combination of data collected through the use of quantitative methods, such as questionnaires with data collected through the use of qualitative instruments, such as observations and interviews.

Triangulation of data collection techniques helps this study to explain more fully both the FYP and Technical departments. This is done in two ways. First, using different data collection techniques helps in obtaining information which cannot be gathered by using a single method. For example, the genre-based approach of document analysis enabled the analyst to understand the linguistic- or lexico-semantic- features of the technical material, a target which would be difficult, if impossible to achieve, for instance, by interviews. Second, the combining of methods leads to obtaining more information about the same topic. For example, although the questionnaire contains a list of language skills and sub-skills that may take place in the technical classroom, the classroom observation yielded further language uses especially in terms of classroom interaction, which were not included in the questionnaire. This consequently helps to overcome the bias of using a single method of data collection (Cohen *et al*, 2000). Figure 10 below illustrates how the four techniques used in this study help to collect data from different perspectives.

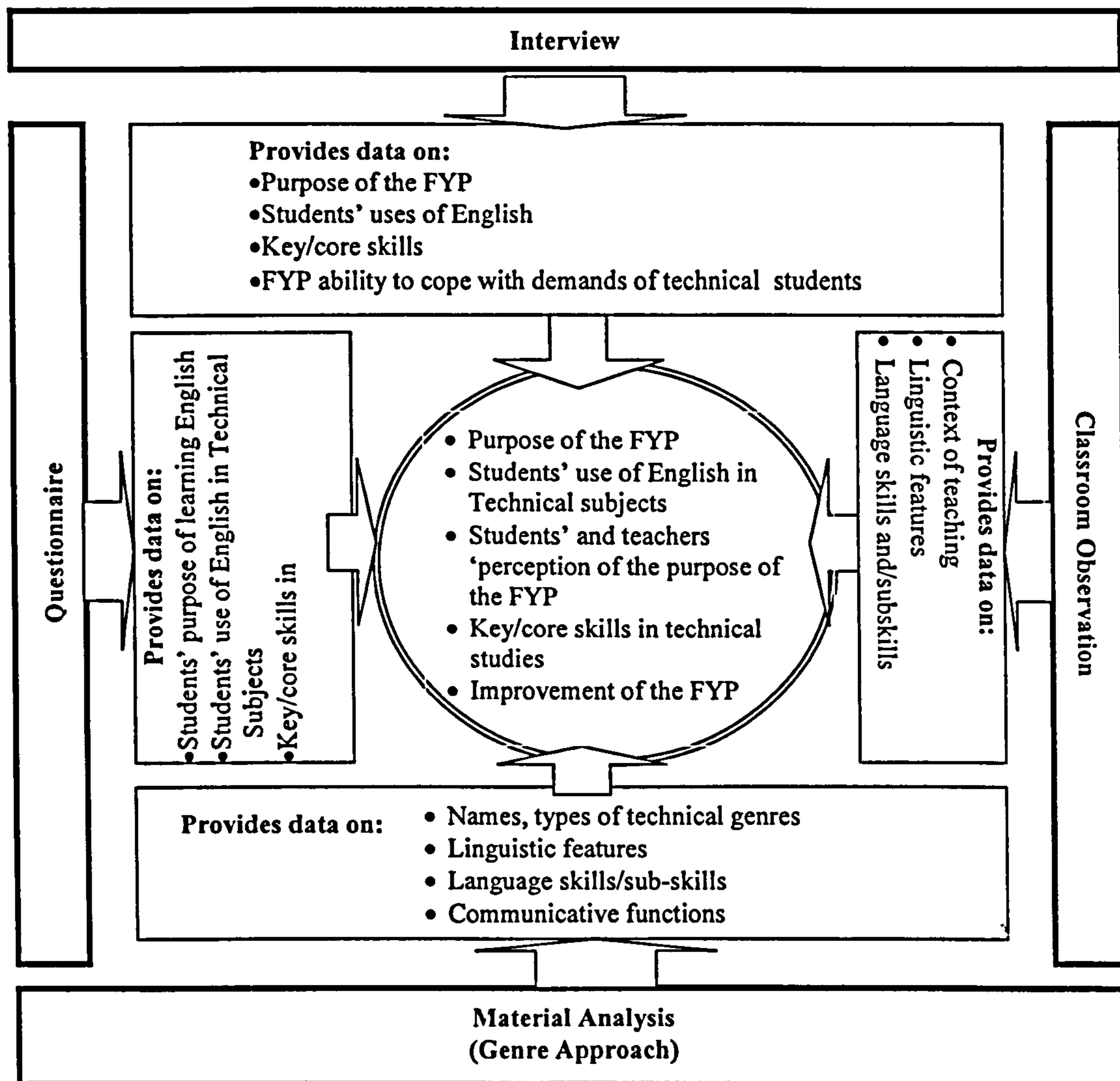


Figure 10: An illustration of the idea of triangulation in this study.

In order to triangulate its sources of information and research tools, the current study involves data collection from the students, teachers and heads of departments in both the FYP and the technical studies in the Colleges of Technology. This data is collected by means of four types of research tools; namely, questionnaire, semi-structured interview, classroom observation and document analysis.

2. 7. 2. Sources of Information

Information about needs can be gathered from different sources. Which source to refer to depends, in fact, on the type of information needed. Learners themselves are a main source of information. For example, Remache (1992) focused on the in-course ESP students. Al-Attili (1986) and Al-Otaibi (1994) obtained information from the graduates in their work place. Langroudi (1999) gathered information from the students in the subject programme. Students' teachers are another source of information. These may be either the subject teachers, as in Chia & *et al* (1999), or TESOL teachers, as in Remache (1992). Employers of the ESP graduates are a third possible source of information about learners' needs. Both Al-Attili (1986) and Sardi (1997) obtained information about the ESP graduate use of language in their work place. Part of this information came from the employers and their representatives. Other sources may include material developed by the institute, students' reports and final projects (Qotbah, 1990), ESP research in the field (Dudley-Evans and St John, 1998), tests and direct observation of candidate in their study/work place (Robinson, 1991). Information can also be gathered by linguistic analysis, discourse analysis, or genre analysis which provides knowledge of how language and skill are used in the target situation (Dudley-Evans and St John, 1998). The language and technical students, teachers and heads of departments, as well as the pedagogical and official documents and classroom practice are the main sources of information for this NA study.

2. 7. 3. Techniques for NA (or research tools)

There is a group of techniques or tools that can be drawn on in needs analysis; typically; different researchers will use different techniques. The scope and objective of the study determine the choice of the most appropriate research tools (Schutz and Derwing, 1981). In addition, some methods may be more practical than others in gathering information about certain topics. For example, if learners, for any reason, do not like to give their opinion about the course in a discussion or an interview, a questionnaire might be a useful tool. Al-Attili (1986, p 117) used an interview for another reason; he writes, "*since the questionnaire, therefore, is a demanding task, some of the recent graduates involved and some of the students who are about to graduate may feel it to be beyond their reach to respond without any help. Their reactions are valuable all the same, so the researcher has to employ a different method and this is where the constructed interview comes in as another tool of research*". In what follows, there is a discussion of the theoretical rationale for the four techniques of data collection: questionnaire, interview, classroom observation and material analysis used in this study.

2. 7. 3. 1. Questionnaires

Questionnaires are common instruments in needs analysis (Grave, 2001). They are widely used in educational research (Robson, 1993, Nunan, 1992 and Cohen *et al*, 2000) and a relatively popular means of data collection among graduate students (Nunan, 1992). In learners' needs analysis questionnaires have been used by Ferris and Tagg (1996), Qotabah (1990), Al-Attili (1986), Sardi (1997), Kormos *et al* (2002) and Jasso-Aguilar (1999) to gather information from learners, teachers and/or employers. The questionnaire can be written in English and if needed can be written in the students' native language (Grave, 2001). Questionnaires are very efficient in terms of researcher's time and effort (Robson, 1993). The required data can be collected from a large number of participants in a cost-effective way within a short period of time (Kormas *et al*, 2002). Compared to, let us say an interview, in terms of time and effort, a questionnaire can be distributed to hundreds of students, or workers in a company, filled in by them and come back to the researcher in almost the same amount of time that it takes to complete a single interview (Robson, 1993). Regarding the analysis effort, if the questionnaire is well designed, the time needed to code and analyse responses can be short, particularly when computerised coding and analysis is used (Robson, 1993). Unlike, observations for example, questionnaires can be sent by mail or email, which has become a popular means that can even save more time, money and effort.

The efficiency and economical feature of questionnaires has attracted many researchers in education and NA so that they are used in large-scale investigation, such as Qotabah (1990), who distributed 994 questionnaires to University students and teachers in Qatar. Questionnaires, if well written, have clear focus. The questions show the study's ultimate objective and what the researcher is trying to find out (Kelliny, 1994). When the questions are grouped under headings, they may lead the reader through easily and help him/her understand the questions and follow the theme. In addition, responding to the questionnaires questions does not require the researcher's directed interaction. This may help to avoid some personality problems. For example, some people feel nervous when involved in direct questioning, which may result in an insufficient amount of data being gathered (Kelliny, 1994).

Closed questions are relatively objective, yet they restrict the respondent's freedom to provide responses other than those set by the questionnaire designer. In closed questions, the range of possible responses is determined by the researcher (Nunan, 1992). The researcher, therefore, can only receive answers to the questions he/she asks. This disadvantage, however, could be solved by open-ended questions, which provide the respondent with a chance to freely express his/her view (Remache, 1992). Yet this freedom is absolutely limited by factors such as time, competence to write extended sentences, the participants' enthusiasm to participate etc. Time, in fact, can be an advantage as well as being counterproductive. If respondents do questionnaires in a hurry the questionnaire validity may be questioned (Kelliny, 1994).

Questionnaires, although easily administered and analysed, are not easily constructed and data is not easily interpreted (Nunan, 1992, and Robson, 1993). As a result of a badly constructed questionnaire, the data may be superficial because they lack honesty or seriousness of responses. Badly constructed questionnaires may not be taken seriously by the respondents. They may skip questions, not pick up the proper response etc. *"For the results to have any hope of meaningfulness, the questionnaire must be painstakingly constructed, with very clear and unambiguous instructions, and careful wording of questions"* (Robson, 1993 p 243). Nunan (1992, p 145) explains: *"unfortunately, the construction of a reliable questionnaire which will tell you what you want to know is difficult and extremely time consuming. When constructing questionnaire items, it is important, first of all to be very clear about the objectives of the study, and each item should be directly referenced against one or more of the research objectives. You should determine in advance how the data to be gathered will be analysed"*.

Because of such long and continuous methodological disputes, the questionnaire remains one of the most controversial research tools in educational research in general and NA in particular. It also remains one of the essential instruments in NA and course design. "Berwick (1989, p 58) concludes the arguments for the use of questionnaires stating "... *the typologies, surveys and questionnaires which are most frequently used in language needs assessment are valuable resources for the programme planner*" (Kelliny, 1994 p 80).

In the light of the above discussion of the theoretical rationale of questionnaire instrumentation, the following three points make the case for using it in this study, which are:

First, the questionnaire is a useful tool for collecting information from a large number of participants (Graves, 2000). In this study, 348 teachers and students participated in answering the questionnaire. Such a large number of participants could not be approached by using other methods, such as an interview.

Second, the questions can be tailored to fit the particularities of each group of participants (Graves, 2000). Therefore, two versions of the same questionnaire were used to address the students and the teachers of the Colleges of Technology in Oman.

Third, the questionnaire is economical in both time and analysis (Greenfield, 2002 and Cohen, *et al* 2000), compared to interviews and observations.

On the other hand, the disadvantages of the questionnaire, particularly the idea that it does not facilitate access to immediate follow-up data collection for clarification and omissions (Patton, 2002), impelled me to triangulate it with other methods, particularly the interview and classroom observation.

2. 7. 3. 2. Interviews

“Interviews carried out for research or enquiry purposes are a very commonly used approach” (Robson,1993 p228). They are a straightforward, flexible and adaptable way of eliciting information. The talk-listen style of interview is familiar to everyone, as it is part of everyone's day-to-day life. The interview potentially provides rich first-hand information. When it is done face-to-face the interviewer has the possibility of following up the interesting answers, modifying his/her line of inquiry to suit the course of the speech, and focus on issues of particular importance. Such advantages are not found in other methods e.g. a posted questionnaire (Robson, 1993). Despite that, interviewer may lack control over the direction of the interview. This is peculiar to unstructured interviews where the interview is guided by the answers of the interviewee rather than the agenda of the researcher. On the other hand, structured interviews provide interviewees with little room for the free talk that is provided in unstructured interviews. In structured interviews, the

interviewer enjoys full control over the course of the interview, because its agenda is totally predetermined by him or her. He or she works through a list of set questions in a predetermined order. A balanced interaction between the interviewer and interviewee, however, could be achieved by conducting a semi-structured interview. This is the most flexible type of interview in which the interviewer "*has a general idea of where he or she wants the interview to go, and what should come out of it, but does not enter the interview with a list of predetermined question. Topics and issues rather than questions determine the course of the interview*" (Nunan, 1992 p149).

Interviews are used to collect information that cannot be collected by other research instruments, such as a questionnaires, diary keeping and observations. Interviews may also complement the role of the questionnaire, because they allow direct interaction. They may serve as a means for further investigation of points that may not have been covered. Interviewees may come out with different ideas, issues, points that are not apparent to the investigator during the questionnaire development (Kelliny, 1994).

On the other hand, interviews are time and effort consuming. They require careful preparation. Securing the required permission, arranging meetings, scheduling and rescheduling visits all take time. Also, while interviewing, notes need to be written which require both effort and skills. If interviews are tape-recorded they need to be transcribed either in whole or in part. Data analysis is also time-consuming. the interviewer needs special skills in time and resources management in order to conduct a successful inquiry (Nunan, 1992 and Robson, 1993).

Interviewees are another area of concern. Sometimes, not all potential interviewees cooperate. Some refuse to take part in an interview. Others are not willing, for one reason or another, to provide all the required information. Some potential interviewees may live in areas beyond the reach of the interviewer (Nunan, 1992).

Profitable and fruitful interviews require professionalism and considerable skill and experience in the interviewer in terms of how to manage time and resources, prepare adequately for the interview, analysis and interpretation of data and how to deal with interviewees. For example, taking more than the agreed amount of a busy interviewee's time may result in reducing the number of people willing to participate. This may lead to

biases in the sample and biases in the data (Robson, 1993). It, then, loses the quantitative aspect of the study and the validity of the results, so the inquiry loses its validity (Kelliny, 1994). The interviewer must be able to retain a friendly, smooth and relaxed connection with the interviewee. Being able to relax the interviewee and maintain a secure atmosphere is essential to get the needed information (Kelliny, 1994).

Finally, a remark about the usefulness of interviews in NA is found in Kelliny (1994, p 246) who examined a number of instruments, and concludes: *"the use of structured interviews proved to be the most effective and relatively the most efficient. In spite of the fact that their use was time-consuming, the structured interviews were very fruitful in terms of the quality of the data collected as well as in opening new avenues of interest which guide the researcher to explore and discover new areas not originally included in the research design. Interviews produced a large body of rich, meaningful and credible data when compared to other tools, such as the questionnaire, diaries and formal observation"*.

In the light of the above discussion, the rationale for using interviews in this study can be summarised in the following points.

First, this study looks at the teachers and students of the Colleges of Technology as valuable and important sources of information about the students' language needs. Thus, the interview was chosen as one of the methods for involving such entities and obtaining information from them, because as Patton (2002, p 341) writes *"qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit"*.

Second, the interview is the most suitable technique for gathering information about participants' perspectives, their opinions, likes and dislikes, about the language programme in the colleges of technology because, *"we cannot observe feelings, thoughts, and intentions"* (Patton, 2002 p 341). The questionnaire, for example, did not seem suitable to achieve this purpose for two reasons. First, it was already long enough as a research tool. It consisted of three sections. Second, it was not likely that the participants, particularly the students, would be interested in answering open-ended questions, which required extended writing. To provide rich and meaningful written information the college students would

need help either from their teachers or from the researcher, a matter which may negatively affect the validity of their answers.

Third, *“interviews have a higher response rate than questionnaires because respondents become more involved and, hence, motivated”* (Cohen, et al 2000 p 269). Therefore, interviews provided in-depth detail about some questions raised, for example the FYP’s purpose, learners’ reasons for studying English and teachers and students’ dissatisfaction. Such ideas would not have been easy to obtain by close-ended questionnaire items, and would be difficult for the participants, especially the students, to write about in open-ended questions.

Fourth, interviews allowed me access to past events, especially undocumented ones. For example, through interviews it first came to my attention that a needs analysis had been carried out in Muscat College many years before. Of course, *“we cannot observe behaviours that took place at some previous points in time... We have to ask people questions about these things”* (Patton, 2002, p 341).

Fifth, interviews allowed me to cross-check (Scott and Usher, 1999) against other data collected by other tools. For example, information about the purpose of the FYP was collected concurrently by the questionnaire and interview.

2. 7. 3. 3. Classroom Observations

Classroom observation is a common data collection tool in educational research (Gebhard and Orandy, 1999). In needs analysis research Kelliny (1994) used classroom observation to analyse language use in the EFL situation and the academic situation- Science, Health Science and Clinical Teaching Sessions, Bahrain. Observation enables the researcher to gather information about the physical setting, the human setting, the interaction setting, and the programme setting (Cohen, et al 2000).

One advantage of observation, as Cohen et al (2000, p 305) suggest, is that it *“enables researchers to understand the context of programmes, to be open-ended and inductive, to see things that might otherwise be unconsciously missed, to discover things that participants might not freely talk about in interview situations, to move beyond perception-based data (e.g. opinions in interviews), and to access personal knowledge”*. In addition,

observation provides first-hand information about what teachers and students do, compared with what they say they do (Burns, 1999 and Wisker, 2001). The disadvantage of the two previous approaches- questionnaire and interview- is that the participants may provide only the information they like to (Wallace, 1998). *“There are limitations, however, to how much can be learned from what people say”* (Patton, 2002 p 21). Observation, however, is an approach, which helped the research to overcome that problem.

Doubtlessly, what to observe in a classroom depends on the purpose of the observation, as there are so many things to be observed, e.g. the teacher, the students’ the setting, and of course so many purposes e.g. teacher professional development, assessment, improvement of teaching (Wallace, 1998). The observation in this study aimed at gathering information about:

- the physical setting: the teaching/learning environment- classroom, computer lab, engineering lab- in the technical department and its organisation;
- The human setting: the characteristics of the members- teachers, students, technicians- of the technical pedagogical environment;
- The interaction setting: the interactions that take place between the different members of the technical departments and how such interactions are affected by the physical setting that they take place in;
- The programme setting: such as teaching material, pedagogical style.

2. 7. 3. 4. Documents Analysis

Document analysis, also called content analysis (Robson, 1993), is one of the methods of collecting data for needs analysis. It aims at gathering information about language features, texts, and skills that are used in the target situations. A genre analysis approach (Dudley-Evans and St John, 1998) is used in this study to analyse documents collected from the technical departments (IT, Business and Engineering) in the colleges of technology in Oman (see 5. 3 below). In this sense, it triangulates particularly with the third section of the questionnaire and with the classroom observation.

2. 8. Theory of Genre Analysis Approach

It was mentioned in 2. 7. 3. 4. above that this study applies the genre analysis approach to analyse the documents found in the technical departments. In this section, a theoretical rationale for the implementation of the genre approach is introduced.

2. 8. 1. Why Genre Analysis

The purpose of the corpus analysis initiated in this study is to enhance the English language teaching/learning in the FYP by making explicit to learners the patterns of language choices found in the texts used in the Technical Departments. An analysis of such ultimate aims should provide a thick discourse description, which according to Bhatia (1991) comprises four levels of analysis. The first level should provide the necessary background information about the discourse in question. This is a situational-contextual level of analysis which is concerned with defining the participants and their shared goal(s) and specifying the historical, sociological, political and economical forces in the discourse community. The second level of analysis should provide information about the overall organization and structure of the text. This helps towards an understanding of coherence from the point of view of the writer and helps material developers to utilize it in teaching materials. The third level is concerned with the writer's tactical and procedural decisions in the textualisation of his/her intended meaning(s), including the coherence strategies. Finally, the analysis should provide a description on how the lexico-grammatical patterns of the text are used to facilitate the global and local rhetorical strategies (Salahshoor, 1999).

Such thick description should be accomplished by applying an analytical approach which combines a focus on the textual properties with the socio-cultural environment. The earlier approaches applied in language analysis, namely register analysis and discourse analysis, were developed to deal only with the textual features, such as lexis and grammar. They ignored an important element, which is the contextual factors, or the socio-cultural environment. The register approach as well as discourse approach were purely descriptive and non-explanatory in terms of relating the linguistic form to its communicative functions in the context of discourse (Swales, 1981, Widdowson, 1983 and Salahshoor, 1999).

Genre analysis combines both text and context. As explained earlier in this chapter, genre analysis places discourse in its communication context. *"The foundation of the genre approach is the study of whole texts in context. A text is a unit of discourse (spoken or*

written) in which related meanings are woven together to make a unified whole which achieves a social purpose" (Feez, 2001, p 212). As to the analytic process, genre analysis means starting the analysis from the higher discourse order i.e. the underlying genre goal, expectations of the discourse community of the genre; and descending to the textual level. So, the first step is looking at the schematic structure of the text. The second step involves finding out how the schematic structures are realized both lexically and grammatically (Salahshoor, 1999). "Recognition of genres creates a starting point and a framework of analysis for a domain and helps structure and interpret texts, events, ideas, decisions, explanations and every other human activity in that domain" (Beghtol, 2001, p 1). In addition, more importantly, genre systems are of pedagogical usefulness for both teachers and students (Hopkins and Dudley-Evans, 1988). They provide suggestions in a straightforward and manageable manner for the language classroom (Salahshoor, 1999).

2. 8. 2. What is the Analytical Framework?

The genre analysis attempted in this study derives its theoretical framework from Swales' (1990) definition of shared knowledge of genre. Swales (1990) followed by Johns (1997), points out that those who share knowledge of the same genre share some or all of:

- a shared name of genre,
- shared communicative purpose(s) of the shared genres or their subcategories,
- shared knowledge of the roles of readers and writers,
- shared knowledge of context, which means all the events that are going on around when people speak and write,
- shared knowledge of formal text features (conventions),
- shared knowledge of text content, such as the types of content and vocabulary in a text and organization of the text,
- shared knowledge of register (lexis and grammar)
- shared cultural values
- and shared awareness of intertextuality.

Thus, this definition has been used as an analytical framework in many studies, and indeed for pedagogy. For example, Santos (2002, p 170) who used it, says "Swales' definition can work as a reliable pedagogical rhetorical-functional framework for the beginner student as well as for the student with difficulties in order to understand and become aware of text

characteristics shared by members within a discourse community, who are already making use of it”.

The genre analysis attempted in this study includes identifying within the written genres of the three technical specialisations: IT, Business and Engineering.:

1. the text including: a) its name or type, b) its communicative purpose(s) c) its sections (structure & organisation), d) its lexical-grammatical features,.
2. It also includes the people who participate in producing and/or receiving the text
3. the context(s) in which the genre takes place.

2. 8. 3. Genre, Context and Participants?

The relationship between genres and context is based on the assumption that all discourse forms, particularly the ones used in institutionalized situations, are negotiated within the specific discipline communities. As Bhatia (1997 and 2001) puts it, genres like other forms of discourse are socially constructed and embedded in social practice. Over generations, the members of a professional community arrive through professional conversation and practice at a consensus and agreement on what should be regarded or disregarded part of the community's body of knowledge. Therefore, genres differ from one discipline to another and from one context to another. For example, Table 8 below shows the difference in the structure of two different genres, one is describing newspaper law reports (Badger, 2003, p 255) and the other is Swales' (1981) analysis of the introductions to academic articles.

Table 8: the Structure of two types of genres

Newspaper law reports	Academic articles
<ol style="list-style-type: none"> 1. headline 2. court 3. title of case 4. (judges) 5. (date) 6. summary 7. lawyers 8. (facts) 9. (facts and discussion) 10. (legislation) 11. (decision) 12. (lawyers) 	<p>Move 1. establishing the field Showing centrality Stating current knowledge Describing key features</p> <p>Move 2. summarizing previous research Strong author orientations Weak author orientations Subject orientations</p> <p>Move 3 Preparing for present research Identifying a gap Question-raising Extending a finding</p> <p>Move 4 Introducing present research Giving the purpose Describing present research</p>

The rationale for the genre is established by the discourse community. The community also assigns names to genres. Therefore, it is regular to come across names such as research articles, reports, Business letters, dissertation, textbook etc. The discourse community also determines the structure and content of the genres used in its context. Dudley-Evans (1987 p 1) asserts genre *"has characteristic features of style and form that are recognized, either overtly or covertly, by those who use the genre"*.

Generally, according to Swales (1990, p 24) a discourse community:

1. has a broadly agreed set of common public goals, for example, an academic discourse community whose goal is to contribute to scientific and scholarly knowledge,
2. has mechanisms of intercommunication among its members (e.g. staff meetings, newsletters, telephones
3. uses its participatory mechanisms primarily to provide information and feedback
4. utilizes and hence possesses one or more genres in the communicative furtherance of its aims
5. in addition to owing genres, has acquired some specific lexis

6. has a threshold level of members with a suitable degree of relevant content and discursal expertise

This section has tried to distinguish the relationship between genre, context and participant in order to establish a theoretical foundation for the analysis of the genre found in the Colleges of Technology in Oman. It is important, therefore, to identify within the Colleges of Technology, the different professional communities in order to identify the different genres used by each of them. So questions like:

- What are the different professional/discourse communities that found in the colleges of technology?
- What are the different genres used by these communities? What are the names associated to these genres?

The pedagogical objective of this study is to help the colleges' new recruits to acquire the knowledge of genre found in the technical department, as Salahshoor (1999, p 93) asserts *"these schematic structures are recognised and shared by the expert members of the discourse community and are supposed to be respected by non-expert members, too"*.

2. 8. 4. The Concept of Communication in Genre

The communicative purpose of genre is the most important factor in genre analysis, as Bhatia (1993a) suggests. From an analytical perspective, the communicative purpose is the main criterion by which texts are considered to be of the same genre. Texts of different communicative purposes should be of different genres. It is also the shared communicative purpose that produces the conventionalised form of the genre and its linguistic features. The analysts task is to point out and identify these regularities in texts organisation and lexico-grammatical features and explains how they relate to the discourse community within which the genre is used (Hewings and Hewings, 2001).

From a pedagogical perspective, in a teaching context, the communicative purposes associated with genres may include: "procedure (how something is done), "description" (what some particular thing is like), "report" (what an entire class of things is like), "explanation" (a reason why a judgment is made) and "argument" (why a thesis has been produced)" (Johns, 1997, p 25). Understanding the purpose of writers and readers is important in the pedagogical context. It helps students to develop a knowledge of genre

(Johns, 1997). An analyst may need to know that some genres may carry more than one communicative purpose (Swales, 1990 and Johns, 1997).

2. 8. 4. 1. What Does Communication Mean in Genre?

The notion of communication in genre is derived from the Systematic Functional Grammar (SFG) developed by Michael Halliday. It was introduced to genre theory by Swales (1981 and 1990). Swales like Halliday is concerned with the functional use of language in a communicative setting (Salahshoor, 1999).

Halliday's approach (SFG) is concerned with developing a model of grammar which provides a clear relationship between functions and grammatical systems (Derewianka, 2001). Functions refer to "*what people do with language*" (Ek and Trim, 1991), or "*the purpose for which an utterance or unit of language is used*" (Richards and Schmidt, 1992 p 214). Halliday describes language in terms of three metafunction (macro-functions):

- The ideational metafunction; using the language to represent our idea of the world, for example, scientific world, religious world, concrete world etc.
- Interpersonal metafunction; using language to interact with others by creating and maintaining different kinds of roles e.g. expert, child, parent etc. and relationships e.g. hostility, affection
- The textual metafunction; using language to create coherent and cohesive texts (spoken and written). There are certain features in the language function to make links between ideas and organize them in an acceptable way (Derewianka, 2001).

Halliday's model emphasizes the relationship between grammar and context. "*At the broader level, we need to consider the relationship between language and its cultural context. Grammatical systems and vocabulary evolve within a particular culture to enable humans to achieve their social purposes. Different discourse communities in a culture will use language in different ways. Our use of language both reflects the context of culture and helps to shape it*" (Derewianka, 2001, p 257).

2. 8. 4. 2. How Communicative Functions are Recognised?

In genre literature communicative events are referred to as "moves", a term coined by Swales (1981). Detailed or micro communicative events which occur within moves are referred to as 'steps' (Swales, 1990 and others) or 'sub-moves' (Salahshoor, 1999). There is very little in the literature of genre regarding the identification of moves. "*Swales himself*

has somehow avoided this question since there is no reference in his work to the procedure he has followed in identifying his four or three schematic moves in the Research Article Introduction" (Salahshoor, 1999 p 103).

There are, however, three possible ways. First, moves can be recognised by linguistic features e.g. use of passives, nouns, pronouns. That means, the functions can be identified by studying the grammatical structures of sentences. Ek and Trim (1991) in their list of language functions point out the grammatical/lexical elements that carry such functions. There is no room in this study to recite all the functions and their grammatical/lexical features that the list contains, however the following are provided as examples:

- Identifying (defining)
(with pointing gesture) this (one), that (one), these, those etc (+Noun) + be + noun phrase, this is the bedroom.
- Correcting a positive statement: No (+ tag) No.,
 - No it isn't.
- Expressing pleasure, liking: noun phrase + be (very) nice.
I like + Noun phrase (very much)
- Structuring discourse, letter: opening: Dear...

Relying solely on a text and its linguistic feature is a less tenable method. Text cannot spell out everything (Salahshoor, 1999). The functional uses cannot simply be identified by studying the grammatical structure of sentences because one form may give more than one meaning. For example, sentences in the imperative form may perform different functions:

"give me that book. (order)

Pass the jam. (request)

Turn right at the corner. (instruction)

Try the smoked salmon. (suggestion)" (Richards and Schmidt, 2000 p 214).

In addition, writers usually leave inferring some meanings to their readers because they assume that readers know a lot of information (Salahshoor, 1999). Therefore, depending completely on the text is not a reliable method.

The second way is the analyst's interpretation or prior knowledge about the underlying discourse goals of the genre on the text. The reader (and the analyst) approaches the text with a set of predetermined expectations that he/she believes to be found in the text (Salahshoor, 1999). This approach is not out of risk because it relies entirely on the reader's personal perceptions of texts. It is a rather subjective criteria.

The third approach combines the two approaches above. It utilizes both the text features and the reader's pre-knowledge about the texts. According to this method, "*moves are recognisable by both textual evidence and the reader's interpretation of the underlying illocutionary value of text segment*" (Salahshoor, 1999 p 104). This method is recommended by Dudley-Evans (1994). He suggests using the direct and indirect linguistic evidence in the text and the analyst's prior knowledge about the underlying features of a text at both local and global levels. This combinatory approach seems the most reasonable because it tries to overcome the pitfalls of each of the above two methods (Salahshoor, 1999).

There is a close relationship between the communicative purposes of a genre and its structure (Bhatia, 1993 b) or formal features (Johns, 1997). Textual formal features or structure, as Johns (1997) explains, can refer to the macrostructures which can be known by headings (e.g. introduction, methodology, data analysis, recommendation, conclusion), or by sentences and phrases (such as 'to conclude', 'I recommend' etc). Swales' (1981 & 1990) 'moves approach' is a method that can be used to identify formal discoursal features in subsections of longer texts, the introduction for example, as in Samraj (2002) and Salahshoor (1999) and others.

Bhatia (1993, p 29) highlights the importance of analysing text structure by saying "*specialist writers seem to be fairly consistent in the way they organize their overall message in a particular genre, and an analysis of the structural organization of the genre reveals preferred ways of communicating intention in specific areas of inquiry*". The main idea of studying the organisation of a genre, as put by Bhatia, is to find out about the different communicative roles that each part of a genre plays. This means that there is an interrelationship between genre structure and its communicative purpose(s). This is reflected in this analysis. In addition, the implication of this for the FYP is that understanding the organisational structure of some genres (for example, formal letters,

assignment report etc) in the technical departments, helps FYP teachers to choose teaching material, methods and content that help students to meet such purposes. It, also, helps students themselves to be aware of the common and required organisation of the genre they should produce and the nature of the genre they are going to deal with in their academic studies.

There is an argument as to whether communicative events occur in linear or cyclical sequences. Swales' (1981) model indicates that communication events in certain genres e.g. Research Articles, follow a fixed structure, for example, introduction, methodology, results and discussion. This model is criticised by a number of researchers, for example, Bhatia (1997), Al-Ali and Holme (1999), Scott and Groom (1999), Salahshoor (1999) and Samraj (2002), whose studies in different types of genre yield an unfixed sequence. Thus, Scott and Groom (1999, p 25) write *"from this perspective genres are in fact internalised ways of knowing and expressing which can be acquired both consciously and unconsciously, and which function as "structuring structures" and not as sets of rules to be applied. In other words, knowledge of a genre's conventions now denotes just one of the capacities necessary to produce texts. To put it another way, genres have come to be seen dramatically as ways of using language to make meaning, and not as semiotic systems or fixed codes"*. Bhatia (1997, p 192), as well, says *"...genre theory needs to account for the complex communicative realities of the academic and publishing world. Since genre-mixing is very common in professional and academic communication, present-day genre theory must be able to account for genre-mixing and embedding, on the one hand, and to maintain generic integrity, on the other. On the face of it, it may appear to be a contradiction in terms; however, in practice, the two goals are complementary to each other"*.

The communicative functions of the technical genre will be recognised by using both the textual features e.g. lexis, grammar and organisational structure and my interpretation of the underlying illocutionary value of text segment.

2. 8. 5. Lexis and Syntax in Genre

The genre register (lexis and grammar) is a main element of Swales' (1990) definition of genre that is used as an analytical framework in this study. It is worth mentioning at the outset that within the British traditions in text analysis, there is no boundary between lexis and grammar, rather they are interdependent (Nelson, 2000). Many linguists are now confident that the lexicon plays an important part in grammar (Nation, 2001). Nelson

(2000, p 219) points out, "work by Sinclair (1991), Willis (1993) Hunston et al. (1997), Hunston & Francis (1998), Hoey (1997, 2000) and indeed Stubbs (1993, 1996), sees lexis and grammar as dependent on each other and interrelated. Stubbs elucidates the Principle of co-selection: lexis chooses grammar and grammar chooses lexis: 'What corpus study shows is that lexis and syntax are totally interdependent. Not only different words, but different forms of a single lemma, have different grammatical distributions' (Stubbs 1996:38). Willis (1993) suggests that rather than seeing grammar and lexis as separate, the starting point should be the 'word' and that the traditional concepts of grammar should be broadened to consider the grammar of structure, necessary choice, class, collocation and probability (Willis 1993:84-85)". Building on such a view of the lexico-grammatical relationship, the present study combines an analysis of the vocabulary and of the grammar of the technical material. In what follows a literature review of the lexicon and syntax of ESP is.

2. 8. 5. 1. What is the Lexicon of ESP?

ESP is well known for the adoption of its own lexicons. The ESP vocabulary is either borrowed from other languages, from the same language with association of other meanings e.g. current in electricity, or compound of other words or abbreviations e.g. AIDS. Some words, anyway, transfer and become part of the general language e.g. radar (Hullen, 1981). Vocabulary in an academic text is categorized in different ways. Kennedy and Bolitho (1984) put them into three categories a) the technical abbreviations e.g. AC, symbols and formula e.g. \$, @; b) highly technical vocabulary and c) subtechnical vocabulary. Nation (2001) mentions four types of vocabulary: high-frequency words, academic words, technical words and low-frequency words.

High-frequency words, also known as general words, include function words and content words. Michael West's (1953) General Service List of English Words is a well known list of high-frequency words. It contains 2,000 word families (about 165 word families are function words, the rest are content words). High-frequency words make 80% of the running words in a text. The function words come under five subcategories: 1) adverbial particles e.g. again, ago, almost, already etc. 2) auxiliary verbs (including contractions) e.g. am, are, aren't, be, been etc. 3) prepositions/conjunctions e.g. about, above, after, along etc. 4) determiners/pronouns e.g. a, all, an, he, she, etc. 5) numbers e.g. billion, eight, eighteen,

five, third etc. The content words consist of nouns, verbs, adjectives and adverbs e.g. government, forests, production, represent etc. (Nation, 2001).

The high technical vocabulary (Hullen, 1981), also called hard terminology (Fanning, 1993) technical words (Nation, 2001), consists of words specific to a certain discipline such as atrium, ventricle, and arteriole in biology. Once they are specific to one discipline they are not found in others. They cover about 5% of the running words in a text (Nation, 2001). There are degrees of technicalness, so that technical words can be classified on a four-level spectrum: level one being the most technical words and level four the least. The relative frequency of form and meaning is applied as a criterion for this categorization. Level one includes those words that never appear or appear very rarely outside their particular fields, for example, in Applied Linguistics: morpheme, legomena, lemma. Level two includes these words, which appear in more than one field of specialization but with different meanings, for example, in Law: cite (to appear), caution (verb). Level three includes words that are used in more than one field of specializations. The meaning of such words is used in one particular field, although accessible outside that field, they are more restricted to particular uses in it, for example, 'recreation' of a crime in law. Level four includes the words that are more common in one field than others. They are of little or no specialization of meaning but the user's knowledge in the field helps to construct a more precise idea of its meanings, for example, in computing: print, program, icon (Nation, 2001).

The subtechnical words, also called Academic words (Nation, 2001) are found and used in more than one discipline. These words make up about 9% of the running words in a text (Nation, 2001). The meaning of a subtechnical word differs according to the discipline it is used in, for example the word 'menu' in computer science and catering. Dudley-Evans and St John (1998) further divide this category into two subcategories. Category one includes the *"vocabulary that is used in general language but has a higher frequency of occurrence than in scientific and technical description and discussion"* e.g. *"academic; factor, methods, function"* (Dudley-Evans and St John, 1998 p 82). The second category includes the *"vocabulary that has specialized and restricted meanings in certain disciplines and which may vary in meaning across disciplines"* e.g. *"bug in computer science"* (Dudley-Evans and St John, 1998 p 83).

The low-frequency words are those that occur very infrequently so that they do not manage to feature in the list of high-frequency words. These words cover a very small part of a text. The list of low-frequency words may include technical words, subtechnical words, general words, for example, proper names e.g. John (Nation, 2001).

Categorizing words in such way is not without problems. The boundary between the high-frequency and low-frequency words is not clearly identifiable. Some low-frequency words could be placed in a high-frequency list, depending on the nature of the corpus. In addition, some technical words occur among the high-frequency words and sub-technical words. For example, price, cost, demands are all high-frequency, which are used as technical words in the economy. Not all infrequent words are of technical use. The list of low-frequent words contains proper names e.g. James, Tim, John. This type of words consists of around 4% of the running words in the Brown corpus. In some texts like newspapers and novels, these names are of high-frequency. Some low-frequency words e.g. bifurcate, eponymous occur within low-frequent list because they are rarely used in the language. They are not low-frequent because they are technical or specific to a particular discipline but because their general use in the language is very rare. They could be, for example, old terms, very formal ones, or belong to a particular dialect etc.

2. 8. 5. 2. Indications for NA in ELT

As to the teaching of these types of words, Nation (2001, p 16) stresses the teaching of high-frequency words, asserting that they are "*so important that considerable time should be spent on them by teachers and learners*". Whether an ESP teacher is responsible for the teaching of highly technical words or not is a matter of argument. Some writers e.g. Kennedy and Bolitho (1984) argue that it is not the responsibility of the ESP teacher to teach high technical vocabulary. Nation (2001) points out that many technical words can only make sense in their context of use in a specialized subject, suggesting that they should be left for the subject learning. Others i.e. Dudley-Evans and St Johns (1998), on the other hand, argue that an ESP teacher is responsible to check that his/her students are familiar with such technical words. Fanning (1993) in talking about the 'BA degree in European Business Administration at Middlesex University', which he describes as a unique context, mentions that hard terminology, for a special reason, is taught in the ESP course. He explains that "*special attention to terminology is necessary for students who spend the first 2 year of a 4-year degree course for English-medium study in years 3-4; this is a*

preessional and an insessional course rolled into one" (Fanning, 1993 p 169). Nation (2001) maintains that technical words of high-frequency should be pointed out for the students so they can see the connection and relationship between high-frequency meaning and technical use. Thus, in ordinary ESP situations, students meet (most of) the technical words (hard terminology) not during their language study but during the academic course. So, I think, it is the responsibility of the ESP teacher to prepare his/her students to deal with such words in the subsequent course. It is possible, if the situation requires, to teach such terminology during the language course, as Fanning (1993) points out.

As to the subtechnical, also academic words (Nation, 2001), Dudley Evans and St John (1998 p 82) see that such words, particularly the "*vocabulary that is used in general language but has a higher frequency of occurrence in scientific and technical description and discussion*", should be given priority in the teaching of ESP vocabulary. This view is also held by Nation (2001) who asserts that specialized vocabulary should be treated like highly-frequent words so should be taught and studied in the language course.

Nation (2001) distinguishes further between learning strategies about learning new vocabulary and learning vocabulary to increase one's range of vocabulary. He asserts that it is the teacher's purpose to teach learners to use strategies to deal with vocabulary. The learners' goal is to increase their vocabulary. The strategies of vocabulary learning help the learners to achieve this target. Therefore, it is the teacher's responsibility to teach the learners to acquire this skill. This could be fulfilled while the learners are studying the high-frequency words so when they move to the stage in which they deal with low-frequency ones they can apply the learnt vocabulary learning strategies.

2. 8. 5. 3. Implications for Analysis

There are different ways in which technical and subtechnical (academic) words can be identified. Nation (2001) mentions three ways of making lists of subtechnical words. First, to classify the vocabulary found in one area of specialization, for example, electricity using one's own intuition. Farrell (1990) created a subtechnical list from a text containing around 160.000 running words using his intuition to remove the general words, believing that subtechnical words are "*formal, context-independent words with a high-frequency and/or wide range of occurrence across scientific disciplines, not usually found in basic general English courses*" (Nation, 2001 p 192). "*Range is measured by seeing how may different*

texts or subcorpora each particular word occurs in. A word with wide range occurs in many different texts or subcorpora" (Nation, 2001 p 16). Second, analyzing a group of academic corpora and identifying the nongeneral words which occur with a wide range and reasonable frequency. Coxhead (1998) analysed 3.500.000 running words from academic material belonging to the humanities, science, commerce and law. The 'Academic Word List' resulting from this analysis is based on the range and frequency of these words across the various specializations within the four faculties. A third way was applied by Lynn (1973) and Ghadessy (1979) who collected the words above which the learners write first language translations in their academic texts (Nation, 2001).

In the above-mentioned three methods, range and frequency are used to categorize words. Using range and frequency for such a purpose is, however, not without constraints. It has been found that a small group of highly technical words occurs very frequently. That means, they are sharing a feature of grammatical/functional words, which are generally of a high frequency and very wide range. In addition, some words in the general high-frequency group are used as technical words in some specific specialization, for example, circuit and field in electricity. Some technical words have a very low range within a corpus. In other words, they are not spread evenly throughout a text but cluster in a particular section. This means that range does not always reflect the real use of a word or its identification as general, technical or subtechnical. It is, therefore, also important to consider the meaning in deciding whether a word is technical/academic. Some words have a technical meaning and another meaning when it is used outside the technical field, for example, in Law: cite (to operate), caution (verb) (Nation, 2001).

2. 8. 5. 4. Syntax Analysis

Grammar is a central feature of genre. *"Both SFL theorists and applied linguists working in the fields of ESP and EAP believe that the explicit teaching of generic structures and their associated grammatical features can help learners (particularly non-native speakers of English) to master the functions and linguistics conventions of texts necessary for successful participation in a range of disciplines and professions"* (Coffin, 2001 p 113).

The grammatical analysis in genre is usually associated with the analysis of the communicative functions of the genre. For example, a good deal of attention has been paid to tenses and voices in the academic genre because it is a common feature of this genre to

contain sentences which report others' findings and include a reporting verb. The reporting verb can have a variety of forms. It can be in the present simple, present perfect or past simple tense. Although the difference in verb form, in such case, does not change the meaning, non-native or unskilled users of the language may encounter difficulties and create difficult texts when choosing the reporting verb. Therefore, it is helpful to take care of such a variation in the teaching of reading and writing (Shaw, 1992). Oster (1981) finds that the present perfect is used to indicate that there will be continued discussion of some of the information in the sentence. It is also used to claim generality about past literature. The past is mainly used to claim non-generality about past literature. It is also used at a secondary level to refer to quantitative results that are non-supportive of the present study. The present is used mainly to refer to quantitative results that are supportive of or non-relevant to the work in the current article. It is used at a secondary level to refer to past literature. Tarone *et al* (1981) focus on the voice in astronomy articles to find, for example, that the active voice with 'we' was used for the writer's own current work, the active with a third-person agent was used for reporting non-conflicting work by others and the passive for reporting conflicting work and the writers' future work. Henry and Roseberry (1997) in their investigation of the functions, strategies and linguistic features of the introductions and conclusions of essays find the passive is the most common choice. It is used, as in general English, to delete actors that are unimportant, or whose identity is understood from the context. They also find that the most common tenses used in the three moves i.e. introducing the topic, narrowing the focus and stating the central idea, are

- present simple which is used to ask questions, give specific facts, make specific statements, for confirming, evaluating, admonishing, presenting a problem, refining, summing up and listing;
- the simple past which is used to give facts, evaluate and provide a solution to a problem;
- present perfect which is used mainly to give facts.
- Future verb 'will' is used to evaluate, predict and speculate. Prediction, which is achieved mainly by using future verbs, is also accomplished by using the semantic class suggesting future outcomes which include the words: progress, evolve, solution activity expand etc.

They also find that evaluation is expressed mainly through modal auxiliaries which include can, may, seem, could, dare, might, need and would. They also identify hypotaxis and embedding and a first person stance. Frequent hypotactic connections include that, when,

because, and as. Embedding is realised with which, who and that. The first person stance "I" is also used. The word "we" is used to indicate a group to which the writer and possibly the reader belong.

Brett (1994), in his genre analysis of the results section of Sociology articles, identifies three main communicative strategies and their lexico-grammatical signals. This is shown in Table 9 below:

Table 9: the communicative functions of genre and their lexico-grammatical features as identified by Brett (1994)

The communicative strategy	Signalled by	example
1- Metatextual categories		
Pointer (which data are to be discussed).	Figure/table/graph/model; shows/presents/appears (present simple/ present passive)	“Table 1 presents means, standard
Structure of Section. (the order and content of the text which follows.	Anaphoric cohesive lexis; next/then/last/following (statement)	“We begin by . . . We then . . . Last we . . .”
2- Presentation Categories		
Procedural. Explains how and why data have been produced.	Mathematical verbs; classify/ test/evaluate/assess (reasons clauses + mathematical verb in past simple)	“To evaluate the correspondence between . . .
Hypothesis Restated.	Comparative/superlative adjectives or adverbs, more likely to (single sentence: subject of study + comparative phrase + subject phrase)	“ . . . we aim to assess the applicability of five competing models . . . ,”
Comment Categories		
Explanation of Finding.	Modals; likely to/may/would Reporting verbs; appears to/suggests/indicates (tentative, qualified statements)	“I suspect ex-offenders are more aggressive because . . .”
Comparison of Finding with Literature.	Is consistent with/supports/backs/comports with (statement which include another author's name) In contrast to/contrary to/challenges (statement which include another author's name)	Example: “Consistent with Klepper, Nagin and Tiemey (1983) . . .”
Evaluation of Finding re: Hypotheses.	As expected/consistent with expectations/comports with/accords with; Is not consistent with/contrary to expectations (statement)	‘As expected, occupational dissimilarity has a significant positive relationship , , .’
Further Question(s) Raised by Finding.	The word “question” (questions)	“The findings also raise the question that . . .”
Implications of Finding.	Indicates/implies/suggests/the need to (statement)	“This implies that such women’s satisfaction might decline over time.”
Summarising.	Thus/in sum/so far (Statement)	“Thus far we have determined that the often . . .”

2. 8. 6. Genre Approach and Spoken Discourse Analysis

The genre approach is also used in analyzing spoken discourse. Genre analysis, within the tradition of SFL, is valuable in highlighting the macro and micro features of spoken texts (Burns, 2001). In ELT particularly in EAP, spoken discourse analysis has been carried out in order to help non-native students to develop strategies to cope with the difficulties of lectures. The pedagogical analysis of spoken genres aims at providing the students with flexible prescription that makes suggestions about the layout, ordering and language appropriate to a particular writing or speaking task. The analytical models for spoken genres are borrowed from the models used for analyzing written genres. In her genre-based approach in analyzing lecture introductions, Thompson (1994) borrowed from Swales (1981 and 1990). She used this to help her identify the kind of functions likely to be found in an introduction to academic genres. The lecture introductions were analysed for their rhetorical functions, with the aim of identifying characteristic rhetorical features. These functions were identified in terms of the lecturer's overall goals and communicative aims. Functional units were identified at two levels: the functions and subfunctions which were then further examined to identify their typical linguistic signals. Thompson (1994, p 176 & 178) identifies two functions, each consisting of a number of subfunctions. These are shown in Table 10 below:

Table 10: the functions of the introduction sections to lectures. Adapted from Thompson (1994, pp 176 and 178)

Function 1: set up lecture framework	Function 2: putting topic in context
Sub-function: announce topic e.g. what I'm going to do in this session is	Sub-function: show importance/relevance of topic e.g. the implications of this are enormous
Sub-function: indicate scope e.g. I'm not going to dwell very long on this side of things	Sub-function: relate "new" to "given" e.g. we've all seen slides like this before
Sub-function: outline structure e.g. I move on to	Sub-function: refer to earlier lectures e.g. if you cast your mind back to Friday and the lecture I gave
Sub-function: present aims e.g. I want to talk a bit about the problems of measurement because	

As to the linguistic signals in these functions, Thompson (1994) finds a frequent use of "I" and "we" which indicates a focus on the lecturer's role in the lecture. Other features can be summarized in Table 11 below:

Table 11: the lexico-grammatical features of the function in the table above

Signals	examples
Verbs indicating scope	Focus, indicate
Lexical items indicating: centrality or peripherality depth or breadth	Main feature Briefly, broad
Markers indicating: Sequence Temporal relationships Verbs suggesting movement along route	Firstly, then Before, after Start off, move on to
Presenting the aims	Using the typical signals <i>aim</i> or I want to
Expressions indicating importance of the topic	Major, a growth area, show importance
Verbs relating to memory	Recall, last time

This theoretical background is important for this study when it comes to analyzing the teachers and students' classroom talks that are collected by the means of the classroom observations which will be provided in chapter 5. A modified model of Swales' analytical framework that was discussed in 2. 8. 5. 1. above will be used for this purpose.

To conclude. Document analysis is one of the methods of collecting data for needs analysis. Its aim is to enhance the English language teaching/learning in the FYP. Genre approach is applied by this study to analyse the documents found in the teachinical departments. Genre approach provides a thick discourse description and combines both text and context. Swales' (1990) definition of shared knowledge of genre is used as theoretical framework for this analysis. The communicative purpose of genre is the most important factor in genre analysis. The linguistic features are also paid considerable attention. This is true for both lexis and syntax. ESP is well known for the adoption of its own lexicon which is usually categorised into different types e.g. highly technical words, subtechnical words, hard terminology, low-frequent words etc. Grammatical features of text in genre analysis are associated with genre communicative purposes, which are carried out by different lexical and semantic features, such as tenses, nouns, names, pronouns, tables etc. It is impossible to analyse all the grammatical features of a text in a single study. Therefore, there is a need for prioritization (McCarthy, 1991). This study is going to focus on tenses, articles, auxiliary verbs, logical connectors e.g. though, thus etc., pronouns and 'wh' words. These grammatical features are chosen because they have gained noticeable attention in the analysis of EAP/ESP genres (Dudley-Evans and St. John, 1998).

2.9. Data Analysis

Data collected for needs analysis can be analysed in many different ways. Statistical analysis about the percentage of holders of a specific opinion can be obtained using known computerised programmes such as SPSS and EXCEL. Other software programmes, such as WordSmith, can be used for analysing the texts. The results of needs analysis serve different purposes. They can be used in course design or course redesign (Dudley-Evans and St John, 1998). Remache (1992) and Sardi (1997) used their findings to design an ESP syllabus. Kelliny (1994) and Jasso-Aguilar (1999) used their results to recommend methods for conducting an effective needs analysis process. Langroudi (1999) used his findings to evaluate the ESP course in Iranian Universities. Others i.e. Al-Otaibi (1994) and So-mui and Mead (2000) recommended mechanisms for ESP course improvement. Weddel and Van Duzer (1997, p 2) added that the information about learners' needs :

- ... aids administrators, teachers, and tutors with learner placement and in developing materials, curricula, skills assessments, teaching approaches, and teacher training.
- ... assures a flexible, responsive curriculum rather than a fixed, linear curriculum determined ahead of time by instructors.
- ... provides information to the instructor and learner about what the learner brings to the course (if done at the beginning), what has been accomplished (if done during the course), and what the learner wants and needs to know next.

The findings of this needs analysis study are used to help in clarifying the areas of participants' dissatisfaction with the current practice of the FYP. They are then used to help in identifying the FYP purpose and learner target language needs, which are, finally, used to identify the objectives, to redesign the FYP content and organisation in order to make it more suitable to achieve its objectives.

2.10. Conclusion

This chapter has provided a literature review of the development of Needs Analysis. Its objective is to provide theoretical frameworks for the design of the needs analysis study in the coming chapter. The study focuses on the language needs of students reading in Colleges of Technology in Oman. Language needs as perceived by this study refer to the activities and sub-activities, skills and sub-skills and linguistic features, namely, vocabulary

and grammar which characterise the students' academic use of English language in the technical courses (IT, Business and Engineering).

This study looks at needs analysis as a process of investigating the present language learning situation (FYP)- PSA- and the future language use situation (Technical Course)- TSA- and examination different aspects relevant to language needs and applicable to the situation of analysis (colleges of Technology) including:

- the purpose(s) students need English for;
- the objective(s) of the language programme;
- the language activities and sub-activities and skills and sub-skills used in the academic studies (IT, Business and Engineering);
- the linguistic features of English used in the academic studies;
- learners/teachers criticism of the subject course;
- learners' weakness/strength;
- the material used in the language course.

Triangulation of techniques and sources (Jasso-Aguilar, 1999 and Kelliny, 1994) is achieved by combining questionnaires, interviews, observations and document analysis. Because needs have to be arrived at by discussion and agreement among the concerned stakeholders (Robinson, 1991), this study involves the students, teachers and heads of departments in the FYP and technical departments (IT, Business and Engineering) in the colleges of technology.

In the light of this theoretical background, the coming chapter discusses the design of the current language needs analysis of the students of the Colleges of Technology in Oman.

Chapter 3: DESIGN OF THE CURRENT STUDY

3. 1. Introduction

This chapter is concerned with the construction and development of the methodology of the needs analysis for the FYP in the Colleges of Technology in Oman and the ways of improving the FYP to better fit its purpose. The methodology is built on the statement of the problem and the research questions that were presented in chapter 1 and the theoretical discussion of needs analysis set down in chapter 2.

The philosophy which underpins the current study, as derived from the literature review, is that 'need' does not of itself have an objective reality but is arrived at by discussion and agreement (Robinson, 1991) and that need analysis is a process which combines certain mechanisms and should involve different parties: researcher, teachers, students etc. (Graves, 2000 and Sardi, 1997). It was also decided (see 2. 5. 1. 2. 2.) that the needs analysis process consists of the:

- analysis of the linguistic features of the target language,
- analysis of the administrative factors in the language learning context,
- analysis of the pedagogical factors in the language learning context,
- analysis of the implementation needs,
- methodology of analysis
- evaluation of the process.

It was also suggested that there is a need for prioritization in terms of NA content and methodology because needs differ from context to context in terms of what is considered most important to focus on, for example, linguistic features, learning strategies, motivation, teacher training etc. It is not practical for a single research study and/or researcher to analyse all the components of NA and use all the methodologies. This study has therefore prioritized its focus as outlined below.

Language needs is the major component of NA in this study (for the status of language analysis in NA, see 2. 5. 1. 1. above). Language needs as perceived here refers to the need

of the students to comprehend the linguistic features, namely vocabulary and grammar, the activities and sub-activities, skills and sub-skills which characterise the students' academic use of the English language in the technical courses (IT, Business and Engineering). The study benefits from Hutchinson and Waters' (1987) concept of the learning-centred approach. It regards the FYP as the present situation (Hutchinson and Waters, 1987 and Graves 2000) and the technical studies as the target situation (Hutchinson and Waters, 1987 and West, 1994). Within these two situations, the investigation encompasses the following six topics, which are relevant to language needs, as discussed in 2. 5 and 2. 6 and applicable to the context of analysis (the colleges of Technology, in Oman):

- the purpose(s) students need English for;
- the objective(s) of the language programme;
- the language activities and sub-activities and skills and sub-skills used in the academic studies (IT, Business and Engineering);
- the linguistic features of English used in the academic studies;
- learners'/teachers' criticism of the language course (FYP);
- the material used in the subject course.

The research recognises that establishing needs is only the first part of a process. It is also necessary to consider what the data suggests about the future content and format of the FYP. Therefore, based on the data analysis, recommendations regarding the future development of the FYP and how these might be implemented will be provided in chapter six, in the light of theoretical insights from Waters and Vilches (2001), Wedell (2003) and others.

Triangulation of data collection techniques and sources of information (Kelliny, 1994 and Robson, 1993) is considered a crucial factor in needs analysis. Therefore, in the two situations of analysis, the FYP and the technical courses, six groups of participants: the FYP teachers and students, the technical teachers and students and the Heads of English and technical departments were approached for the purpose of data collection.

In addition, both qualitative and quantitative approaches were used in order to try to answer the study research questions. Robson (1993, p 291) writes, "*...in a primarily quantitative study, the interpretation of statistical analyses may be enhanced by a qualitative narrative account. Conversely, a qualitative account may be the major outcome of a study, but it can*

be enhanced by supportive quantitative evidence used to buttress and perhaps clarify the account". Kelliny (1994, p 247) studies the usefulness of qualitative and quantitative techniques for needs analysis studies and concludes by recommending a combination of the two approaches in needs analysis: "... *I regard such a combination of qualitative and quantitative approaches as a must, as both approaches share a common goal for research, which is the understanding of the phenomena under investigation*". Therefore, triangulation of qualitative and quantitative methods was believed to be essential for this study.

Thus, three types of data collection instruments were developed: questionnaires (quantitative), interviews and classroom observations (qualitative). In addition, a genre based analysis of the technical pedagogical documents was performed in order to understand better the nature of the technical genre in terms of its types/sub-types, linguistic characteristics and communicative purposes, and so understand the language activities the students were required to undertake in the subject studies (see 2. 7 p 85 above). Figure 11 below gives a summary of the design of the present study. It is discussed more fully thereafter.

In what follows the sources of information of the study and the characteristics of the participants is discussed in 3. 2. The data-collection instruments are provided in 3. 3. A perspective on the data analysis is provided in 3. 4. The ethical aspects of the study are discussed in 3. 5 . The pilot study is provided in 3. 6. The main data collection is provided in 3. 7. The trustworthiness of the study is discussed in 3. 8. Then a conclusion is supplied in 3. 9.

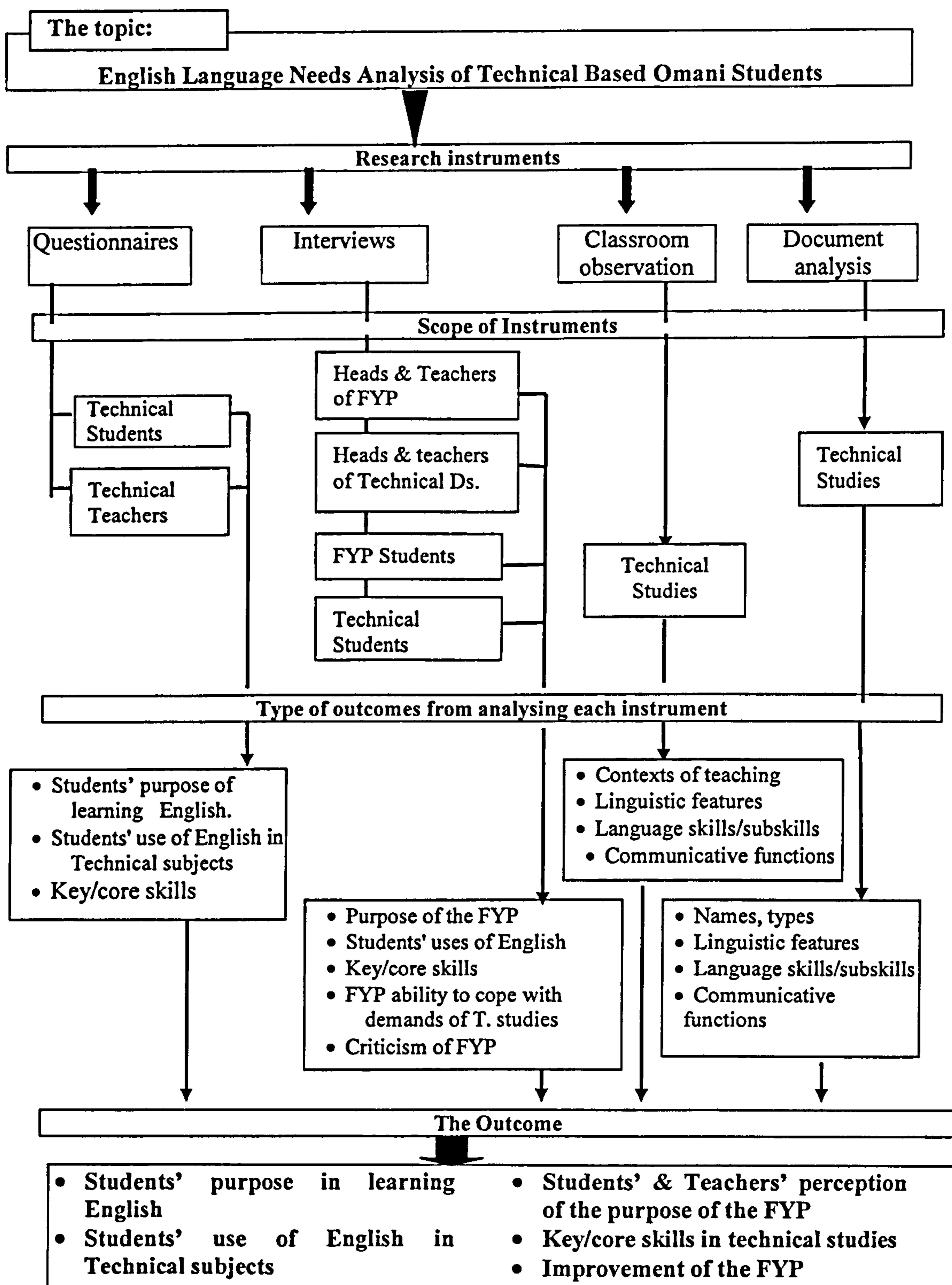


Figure 11: Summary of the Study Topic, Data, Instruments and Outcome.

3. 2. Sources of Information and Characteristics of Participants

The data gathered in this analytical study was secured from three main sources within the technical colleges, namely:

- i) the students, teachers and heads of FYP and technical departments,
- ii) the classroom pedagogical behaviour in the technical classrooms, and
- iii) the technical pedagogical material.

3. 2. 1. The Students and Teachers of Colleges of Technology

Students and teachers are one of the main sources of information for many needs analysis studies e.g. Remache (1992), Al-Attili (1986), Al-Otaibi (1994), Langroudi (1999), Waters and Vilches (2001) and Chia and associates (1999). It was pointed out in the literature review chapter (see 2. 7. 2. p 90) that the students, teachers and heads of departments in the technical colleges are an important source of information for this study. These participants are categorized in Table 12 below.

Table 12: the types of participants from the technical colleges

<p>A.</p> <p>The FYP students: were the newcomers who join the college to specialize in one of the academic studies provided by the colleges. A full description of these students is provided in (1. 2. 2. p 15 above).</p>
<p>B.</p> <p>The FYP teachers: were the English language teachers who teach English to group (a). they also teach English to the academic students in the post-foundation programme.</p>
<p>C.</p> <p>The academic students: were those who study in one of the technical departments in the colleges. Most of these students join the FYP before they enrol in the technical studies. Therefore, they have experienced both the language course (FYP) and the subject course (IT, Business, or Engineering).</p>
<p>D.</p> <p>The subject teachers: were those who teach in the Technical Departments i.e. Engineering, IT and Business in the colleges. These teachers were in a position that enabled them to provide a critical insight into the language abilities of the FYP graduates- the majority of group c- through the English work the students had to perform in their specialisation areas.</p>
<p>E.</p> <p>The Heads of the English Departments (FYP) and the Heads of the academic departments (IT, Business, Engineering). Heads of departments also participated in the teaching activities. Being heads of their departments they were close to the decision-making process in the colleges. Therefore, their involvement in the study was important because of the two positions they held.</p>

Although the research literature provides no specific percentage of participants that can be regarded as a sufficient sample, using the maximum possible number of participants was the rationale for this study. 348 technical teachers and students took part in answering the questionnaires and 70 teachers and students both FYP and academic were involved in the interviews.

3. 2. 2. The Classroom Practices

Data on the classroom practices includes the students and teachers' behaviour that took place in the technical specialisations: IT, Business and Engineering. This was obtained by classroom observation. A further discussion of classroom observation as a research tool is offered in 3. 3. 3. below and a full analysis of it will be given in 5. 2.

3. 2. 3. The Technical Pedagogical Documents

Document analysis, also called content analysis (Robson, 1993), was one of the major methods of collecting data for this needs analysis study. There is a wide range of documents used in the technical studies, including textbooks, assignments, homework, quizzes, exam paper, handouts, blackboard notes, and interdepartmental notifications. Samples of these types of documents were chosen for analysis and will be presented in detail in 5. 3.

The main purpose of this analysis was to help understand the language needs of the students in their technical specialisations. A genre-based approach was applied to analyse such documents. Genre analysis examines the linguistic and format specifications of a text, the contexts in which it is used and the people who use it (Beghtol, 2001 and Kay, 1994). For the theoretical rationale for using the genre-based approach, see 2. 8 p 95 above. For actual document analysis see 5. 3 p 194 below.

An important point to understand is that, in relation to these sources of information, the five technical colleges adopt the same language and technical teaching programmes. In other words, the colleges have the same course content, textbooks, assessment system, etc. In addition, the students in the five colleges share some background characteristics. They are, for example, Omanis, boys and girls, aged between 16-19 years, secondary school leavers, and come from all parts of Oman (as discussed in 1. 2. 2. above). So, each of the five colleges can represent the others in terms of philosophy, objectives, needs, content, students and teachers. Because of these similarities, the data was collected from only two of the five colleges. These were Muscat College of Technology and Ibra College of Technology. These were chosen for two reasons. First, Muscat College of Technology is the mother college to the other colleges. Ibra College of Technology is the college where the researcher works. Second, both colleges are nearer to the researcher's hometown- 100 Km.- compared to the other three - 300 to 1000 Km.

3. 3. Data Collection Instruments

The research instruments adopted to obtain information from the above sources were questionnaires, interviews and classroom observations (for the rationale for using such tools see 2. 7. 3. above).

3. 3. 1. Questionnaires

The questionnaire was one of the principal means applied in the current study to collect information from the students and teachers of the Colleges of Technology. It is a common instrument of data collection in educational research (Nunan, 1992). In learners' needs studies, the questionnaire was used by Ferris and Tagg (1996), Qutabah (1990), Al-Attili (1986), Sardi (1997) and Jasso-Aguilar (1999) to elicit information from learners, teachers and employers. The questionnaire is a useful tool for collecting information from a large number of participants. The questions can be tailored to fit the particularities of each group of participants (Graves, 2000).

Therefore, in the current research two versions of a questionnaire were designed to address the technical students and teachers (full copies of them are provided in appendices 1 and 2). In developing this questionnaire I sought guidance from Sardi (1997), Qotbah (1990) Al-Attili (1986), Reeves and Wright (1996), Intaraprasert (2000), Oxford (1990), O'Malley and Chamot (1990) and McDonough (1995). Those studies were consulted for topics and ideas rather than content and design.

The content of these versions of the questionnaire was as follows:

Section 1: providing demographic information about the participants: teachers and students. Students were asked to provide information about their gender, college, and areas of study. Teachers were asked to supply information about the college where they work and their teaching specialisation. It is important here to say that the personal differences, e.g. gender, or place of residence, were not used as variables for studying the participants' needs. The information gathered throughout this section aimed at providing an insight into whether the questionnaire was distributed among a large enough and sufficiently varied sample to represent the entire population of the colleges' students and teachers. Three hundred and forty eight teachers and students were involved in answering the questionnaire. The actual numbers and specialisations of participants are shown in Table 13 below.

Table 13: The numbers and distribution of the questionnaires participants

Students						Teachers		
Bus.		IT.		Eng.		Bus.	IT.	Eng.
Y1	Y2	Y1	Y2	Y1	Y2	12	14	19
49	52	50	51	48	53			

The participants represented all three specialisations: IT, Business and Engineering. Forty-five technical teachers, representing the entire population of the subject teachers in the three specialisations in Ibra and Muscat colleges, took part in answering the questionnaire. Three hundred and three technical students, 23% of the entire population of the technical students (1300) in both colleges participated in answering the questionnaire, as shown in Figure 12 below.

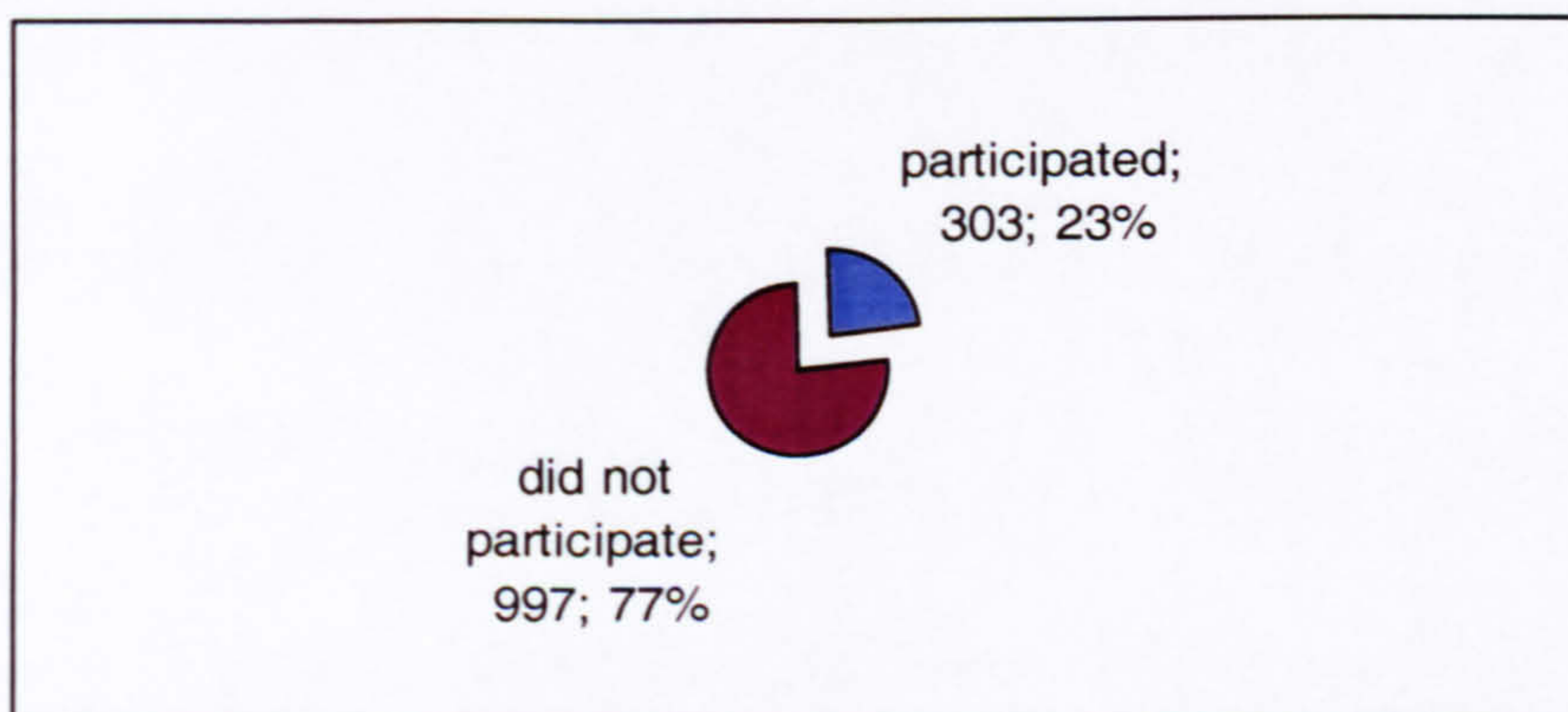


Figure 12: the number and percentage of the technical students who participated in the questionnaire compared to the whole population of technical students in Muscat and Ibra colleges of Technology.

Besides representing the three specialisations, the students also represent the two years of technical studies. The homogeneity of students is shown in Figure 13 below:

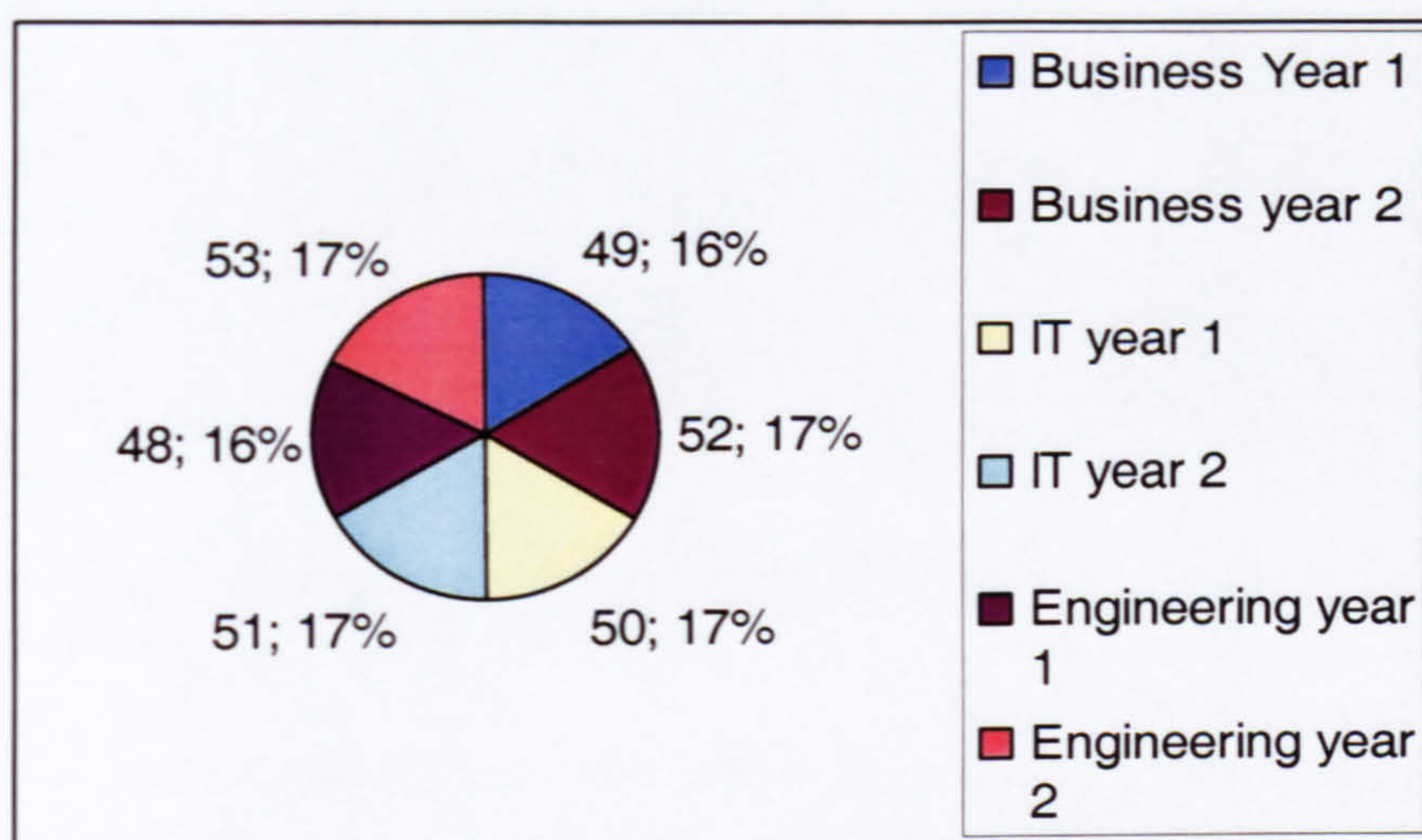


Figure 13: The number of students from each year and specialisation who participated in the questionnaire.

Section 2: was concerned with the students' reason(s) for taking the language course. It aimed at finding out about the purpose of the FYP, as perceived by the teachers and students. The participants, students and teachers, were provided with options to choose from and extra spaces to state any other reasons.

Section 3: looked for the language activities, skills and sub-skills the technical students performed in their study. So, it provided the researcher with data based on self-report, on the type and frequency of language activities, skills and sub-skills that the students practise. It also helped to give an idea about the common inter-specialisation language skills/sub-skills which may indicate the core/key skills for the technical studies in the colleges. Part A contained a list of activities, skills and sub-skills and students were asked to indicate on a scale of frequency, how often each item was performed. I constructed those items from reading the previous studies in language needs analysis, e.g. Qotbah (1990) Langroudi (1999) Kelliny (1994) Sardi (1997) and Remache (1993) and from my own experience as a teacher in Ibra College of Technology. Such items were then refined by the pre-piloting process in order to make them more relevant to the technical studies. These items represent the four language skills common in English Language teaching: Reading, Writing, oral skills (Speaking and Listening), some reading and writing texts and some communicative functions associated with them, as shown in Table 14 below. Because the questionnaire

tried to include only those language uses, which were actually employed in the technical departments, the questionnaire items differ in weighting.

In part B participants were asked to add any further information they thought was missing from the list in A.

The piloting of the questionnaire is discussed in (3. 6) below and a full analysis of it is presented in (4. 2) below.

Table 14: categorization of the language uses presented in the questionnaire.

The category	The items
Reading strategy	Reading a text to understand all or most of the information in it
	Reading a text to understand the main information only in it
	Reading a text to get a general idea of the content
	Reading aloud
Reading Text	Reading instructions or manuals of machines, equipment
	Reading newspaper and magazine articles.
	Reading academic email messages that they receive from their teachers
	Reading formal letters with a general content
	Searching the www for technical information
	Reading advertisements
	Using a dictionary to find meanings of new words
	Reading/finding information from charts, timetables, graphs and forms.
Writing Text	Filling out forms
	Writing plans for assignments and projects
	Writing summaries of texts or assignments
	Taking notes from lectures
	Translating from Arabic to English either some phrases or whole texts
	Writing formal letters with general content
	Writing a questionnaire
	Writing/designing images (e.g. tables, graphs) to use in presentations/written reports
	Writing curriculum vitae (CV)
	Writing a letter of application
	Explaining in writing the content of graphs, tables, charts, diagrams
	Quoting from books or articles to support ideas when writing assignments, reports etc.
	Participating in a live email discussion
Length of written Text	Writing a one-paragraph piece of work
	Writing a piece of work consisting of two or more paragraphs
Oral (listening and speaking)	Giving short talks or presentations about certain topics, objects or plan of my work
	Taking part in a group work/discussion
	Being interviewed by someone
	Listening to radio & Watching television to get information for my study
	Listening to a lecture
Communicative functions	Correcting mistaken information orally to their classmates or teachers
	Giving an opinion on a specific or general subject
	Telling some one orally how to use an object or carry out a process
	Making suggestions to classmate or teachers
	Writing a report about something done in the past, for example a visit to a company, project
	Writing about future plans

3.3.2. Interviews

The interview was chosen as one of the methods for involving the teachers and students of the Colleges of Technology and obtaining information from them. The interview technique is the most suitable for gathering information about participants' feelings, thoughts, and intentions, because these things are unobservable (Patton, 2002). Also, it was not indeed likely that the participants, particularly the students, would be interested in expressing their feelings by answering open-ended questions, which require extended writing, skills and abilities. To provide rich and meaningful written information, the colleges' students would need help either from their teachers or from the researcher, a matter which could negatively affect the validity of their answers. Interviews, as well, provided in-depth detail about some of the questions raised because, *"Interviews have a higher response rate than questionnaires because respondents become more involved and, hence, motivated"* (Cohen, Manion and Morrison, 2000 p 269). The interviews, as a means of data collection, triangulated with the other tools, specifically the questionnaires and classroom observations. The advantage of the interview compared to the questionnaire is that, through an interview a researcher may investigate further ideas and points which had not been quite clear to him/her during the questionnaire development process (Kelliny, 1994). For example, by means of interviews it came to my knowledge that Maths needs lower language competence than other subjects e.g. computer, Engineering, Business. For further discussion on the rationale for using interviews in this study see 2.7.3.2. above. The interviews in this study sought answers to seven questions:

1. What is/are the purpose(s) of the FYP as understood by the interviewees?
2. How important is English for the students to succeed in the technical studies, as perceived by the interviewees?
3. What are the language needs e.g. skills, vocabulary, grammar, of the technical studies as perceived by FYP students, teachers and Heads of Departments and technical students, teachers and Heads of Departments?
4. Do the FYP teachers feel that they need to know the language needs of the students in technical studies? If so, how should it be done?
5. What are the language core/key skills, as perceived by technical students, teachers and Heads of Departments?
6. To what extent is the existing FYP capable of providing the FYP students with the required language skills to cope with the demands of technical studies, as perceived by the interviewees?

7. What are the areas that need improvement? How should they be improved? Is there anything that makes improvement difficult?

These seven questions focus on three major areas of the research questions:

1. The FYP purpose and learners' reasons for joining it. This topic is addressed by questions 1 and 2;
2. The learners' language needs. This issue is addressed by questions 2, 3, 4 and 5;
3. Feedback for the (re)design of the FYP. This point is addressed by questions 6 and 7.

Further, the interview questions triangulate with the questionnaire, especially sections 2 and 3. The interview questions 1 and 2 triangulate with section 2, which is concerned with the purpose of the FYP; questions 2-4 triangulate with section 3, which is concerned with the language uses in the technical departments.

The interviews targeted six groups of participants: the FYP students, teachers and Heads of Departments, the Technical students, teachers and Heads of the Departments of Engineering, Information Technology and Business. Figure 14 below illustrates how interviewing each group answers each of the seven interview questions.

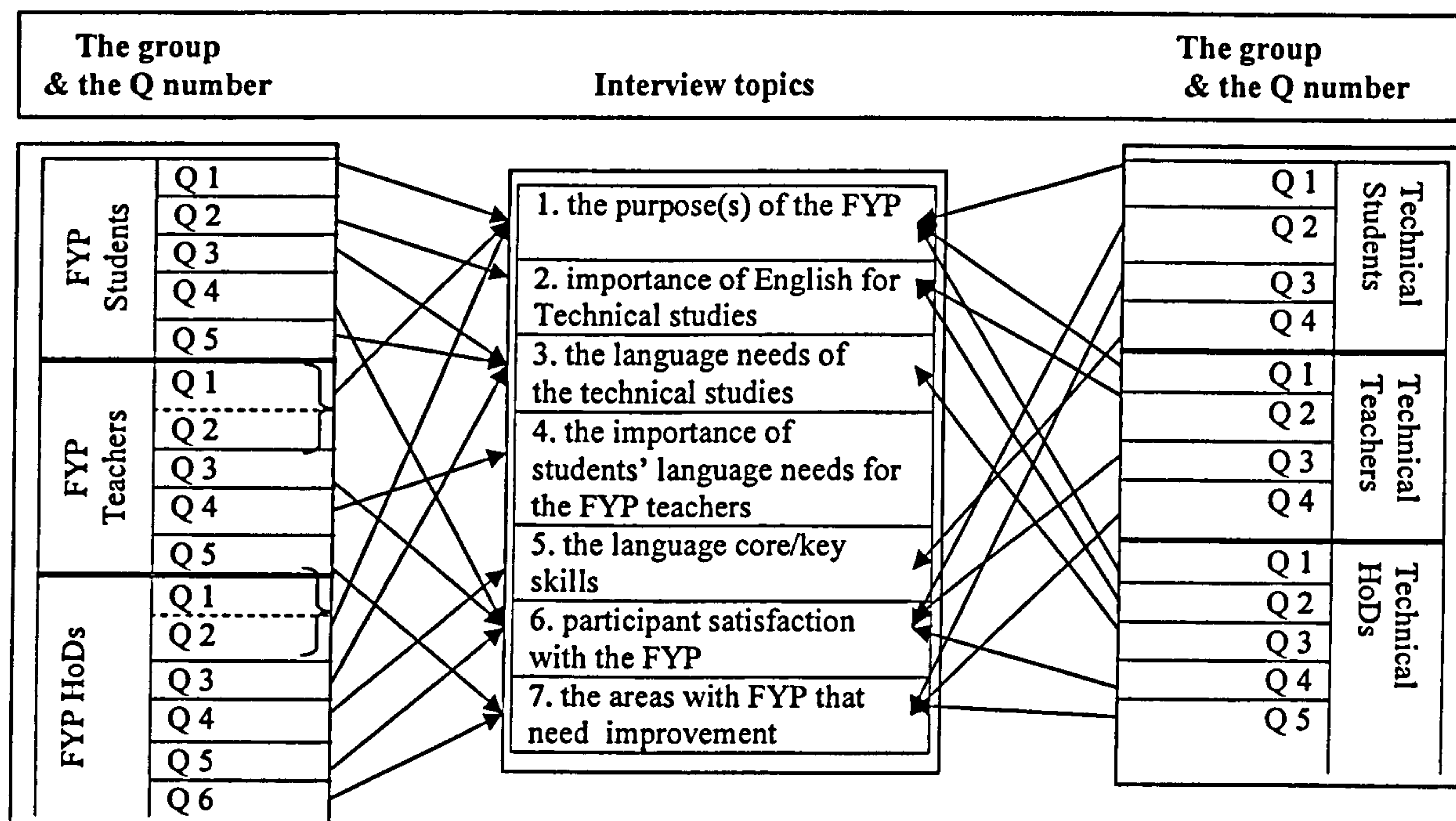


Figure 14: how interviewing each group cascades in the 7 interview questions

A. FYP students.

Interviewing the FYP students aimed at finding out about the following topics:

1. Do they think that they need the FYP?
2. What do they know about the language demands of technical studies? And How?
3. What language skills do they expect the FYP to provide them with to use in technical studies? What do they think most important?
4. What language uses does the FYP not provide them with and which they think they need?

The actual questions posed to the FYP students are itemised in Appendix 4 C.

B. Technical students

Interviewing the technical students aimed to find out about the following points:

1. What is their understanding of the purpose of the FYP?
2. To what extent has what they studied in the FYP helped them to cope with the requirements of technical studies?
3. Are there any area/s of language uses that they would have liked to have been emphasised further in the FYP?

The actual questions posed to the technical students are set down in Appendix 4 D.

C. FYP Teachers:

The interview with the FYP teachers answered the following questions:

1. How do they understand the purpose of the FYP and its underpinning principles?
2. To what extent do they think that the skills the FYP provides for the students meet what they actually need in technical studies?
3. Do they have a clear idea of the language needs of the students in their technical studies? If not, how should it be done?
4. How could the FYP be improved in order to be more efficient in fulfilling its purpose? What are the barriers, if any, that may handicap such improvements?

The actual questions posed to the FYP teacher are presented in Appendix 4 E.

D. Technical Teachers:

The interview with the technical teachers sought answers to the following questions.

1. How do they understand the purpose of the FYP?
2. How important is English to technical studies?

3. To what extent do they think that the FYP graduates are able to cope with the language demands of technical studies?
4. What are the areas of language competence that need improvement among the students graduating from the FYP? Are there any common areas of weakness?

The actual questions posed to the technical teachers are furnished in Appendix 4 F.

E. Heads of English Departments (FYP):

The Heads of English Departments (heads of FYP) answered the following questions:

1. What are the objectives of the FYP? How were they set? And by whom?
2. What are the principles underpinning the FYP?
3. What are the actual language needs of the FYP students? How have they been identified? And how clear are they to the programme developers, EL teachers and the students?
4. Are there any skills that they regard as key/core skills? Which? And why?
5. Is the present practice in the FYP sufficient to meet the language needs of the learners?
6. Do they suggest any ways in which FYP might be improved and do they see any barriers that may handicap such improvements?

The actual questions posed to the Heads of FYP are shown in Appendix 4 A.

F. Heads of the Technical Departments (Engineering, IT and Business)

Interviewing the heads of the technical departments answered the following questions:

1. How do they understand the purpose of the FYP?
2. How important is English for the technical departments?
3. What are the language needs of the technical students?
4. To what extent are the FYP graduates able to cope with the challenges of the language demands of the technical studies?
5. What are the areas of students' language competence that they consider should be further emphasised in the FYP? Are there any common areas of weakness?

The actual questions posed to the Heads of Technical Departments are supplied in Appendix 4 B.

A semi-structured type of interview (Nunan, 1992, Robson, 1993 and Gall, Borg and Gall, 1996) was thought to be more appropriate for the purpose of the current study. Here *“interviewers have their shopping list of topics and want to get responses to them, but as a matter of tactics they have greater freedom in the sequencing of questions, in their exact wording, and in the amount of time and attention given to different topics”* (Robson, 1993, p 237).

The FYP students and teachers and the technical students and teachers were interviewed in focus groups of 4-6 members- 8 heads of departments, 20 FYP teachers, 28 technical teachers, 36 FYP students and 88 technical students. The Heads of Departments were interviewed individually. Thus, 37 interviews were held, as shown in Table 15.

Table 15: the number and distribution of interviews.

FYP			Technical			
Interviewee	No. of interviews		Interviewee	No. of interviews		
	Muscat	Ibra		Muscat	Ibra	
HoD	1(individual)	1(individual)	IT	HoD	1(individual)	1(individual)
Teachers	3 groups (5 teachers)	1 group (5 teachers)		Teachers	1 group (5 teachers)	1 group (4 teachers)
students	3 groups (6 students each)	3 groups (6 students each)		students	Y1: 1 group (4 students) Y2: 1 group (5 students)	Y1: 1 group (6 students) Y2: 1 group (6 students)
			Engineering	HoD	1(individual)	1(individual)
				Teachers	1 group (4 teachers)	1 group (4 teachers)
				students	Y1: 1 group (5 students) Y2: 1 group (5 students)	Y1: 1 group (5 students) Y2: 1 group (3 students)
			Business	HoD	1(individual)	1(individual)
				Teachers	1 group (6 teachers)	1 group (5 teachers)
				students	Y1: 1 group (4 students) Y2: 1 group (5 students)	Y1: 1 group (4 students) Y2: 1 group (6 students)

The practicality, validity and reliability (see *Trustworthiness of the Research*, p 139) of these interviews were tested during the pilot study in May 2002 and are discussed in (3. 6) below. A full analysis of the interviews is provided in (4. 3).

3. 3. 3. Classroom Observation

Classroom observation is a common data collection tool in educational research (Gebhard, 1999). In needs analysis research, Kelliny (1994) used classroom observation to analyse language use in the EFL situation and the academic situation, namely Science, Health Science and Clinical Teaching Sessions, Bahrain.

One advantage of observation is that it provides first-hand information about what teachers and students do, compared with what they say they do (Burns, 1999). Doubtlessly, what to observe in a classroom depends on the purpose of the observation, as there are so many things to be observed, e.g. the teacher, the students, the setting, and of course so many purposes e.g. teacher professional development, assessment, improvement of teaching (Wallace, 1998).

The purpose of the observation in this study was to obtain first-hand information about the language use in the subject classrooms. This information helped me, as a researcher, to compare and contrast what I saw and heard in the classroom with the information provided by the participants- academic teachers/students- through the other forms of data collection namely the questionnaire and the interview. The disadvantage of the two previous techniques- questionnaire and interview- is that the participants may provide only the information they like to have (Wallace, 1998). Observation, however, is a procedure, which helps to overcome that problem. For further discussion on the rationale for using classroom observation in this study see 2. 7. 3. 3. above).

The observation that was adopted by this study looked for answers to the following questions:

- What was/were the teaching/learning material(s) used in the classroom?
- What type of classroom interaction existed?
- How different/similar was this particular classroom, whether IT, Business or Engineering, to other classrooms, in terms of language uses, teaching material, classroom interaction etc?

- To what degree did the observed classroom practice agree/disagree with students' and teachers' responses in the questionnaire, in terms of language uses?

To record classroom observation, two methods were applied. First, audio recording which helped me to keep a full record of the spoken language and freed me to observe and take notes of other forms of classroom behaviour e.g. teacher-students, students-students interaction, teaching material etc. The audio recording was transcribed and analysed later. An observation sheet (Swann, 1994, Wragg, 1999) was, also, used to record the type and number of contributions made by teachers and learners. A sample of this sheet is provided in appendix 3.

I understood that my role as a non-participant observer (Gebhard, 1999) should require no interference in the teaching/learning process. At the end of each observation session I found out from the teacher how typical the class was and whether he/she had conducted the lesson the way he/she planned and asked for any reflections on the language uses and activities that he/she would like to comment on.

The total number of classroom observations was 24, distributed over the 3 academic specialisations and the two years of study, as shown in Table 16 below:

Table 16: number and distribution of classroom observations

college	Department		
	Engineering	IT	Business
Ibra	1. Electrical Power: technology lab. (Y2) 2. Engineering Mechanics (Y 1). 3. Electricity and Management (Y 2) 4. Engineering Science-Lab(Y 1).	1. IT systems (Y 1) 2. Introduction to programming 3. Programming in advance "C" (Y 2) 4. Database II (Y 2)	1. Principles of Management (Y!) 2. Business Planning (Y 2). 3. Financial management (Y 2) 4. Mathematics (Y 1)
Muscat	1. Mechanical Technology (Y2) 2. Engineering Science-Lab (Y 1). 3. Engineering Drawing (Y 2) 4. Mechanical Technology (Y2)	1. Mathematics I (Y 1) 2. Database II (Y 2) 3. Web Design (Y 2) 4. Mathematics I (Y 1)	1. Banking practice (Y 2) 2. Mathematics (Y 1) 3. Financial Accounting (Y 2) 4. Banking practice (Y 2)

3. 4. Data Analysis

This is a general account of the data analysis methodology applied in this study. A much more detailed description of the analysis methods is provided in chapters 4 and 5 before each type of the four research instruments: questionnaire, interviews, document analysis and classroom observation.

Two types of scales were used for naming and classifying data. First, nominal scales were used to categorize the participants in terms of variables such as gender, college, department, year of study. Second, ordinal scales were used to rank data, such as the purpose for learning English in the colleges and language uses.

Three software programmes were used in this analysis. The Statistical Packing for the Social Sciences (SPSS) (Robson, 1993) and Microsoft Excel were used for statistical purposes and to design graphs and charts. In this regard, statistical procedure components such as percentage, frequency and rank order (Gall, Borg and Gall, 1996) were all considered in this data analysis. WordSmith (Scott, 1998) was used to analyse the technical genres- lexically and semantically (see 5. 3. 4. , p 220 below) and classroom talk (see 5. 2. 5. , p 186 below).

3. 5. Ethical Aspects of the Study

Ethics awareness in research is concerned with building a healthy relationship between the researcher and the participants in order to observe the rights of the participants and consequently to obtain reliable information from them. Robson (1993) states that "*Ethics refers to the rule of conduct*" (p 29). The present study, thus, has a strong concern with the ethical aspects of research.

Several actions were taken in order to approach the participants in the most convenient way. The first step taken was that of informing the authorities concerned, both in the Ministry and the Colleges of Technology about the aims of the research, the type of information sought and the techniques for obtaining it. Before going to the colleges for data collection, I went to the Headquarters in Muscat to meet the officials in charge and obtain permission from them. The next step was to contact the Deans of the colleges and the heads

of the departments to tell them about my plan and that permission from the Ministry had been obtained. The next move was negotiating with the participants themselves, e.g. students, teachers and heads of departments. This included explaining the aims and purposes of the research, its significance for the colleges, and, most importantly, the confidentiality of the information. This step also involved listening to the participants' opinions and answering their questions. Those taking part were informed that they had the right to withdraw if they wished. There were no refusals. Although some teachers showed some hesitation at the beginning, they felt happy when they understood the aim of the study.

3. 6. The Pilot Study

The pilot study was carried out in the Ibra Technical College, Oman between 26 May and 10 June 2002. The piloting aimed at finding out about the general feasibility of the study. It provided information about the extent to which the participants were co-operative and keen to help me carry out my work. It, also, helped in testing the validity and reliability of the research instruments, which for this study included questionnaires, interviews, classroom observations and documents (see *Trustworthiness of the Research*, p 139).

3. 6. 1. The Pre-Piloting of the Questionnaire

Before piloting, the questionnaire had gone through a pre-piloting stage. Copies of the questionnaire were distributed among three technical teachers who used to teach in Muscat College of Technology and were then doing their Ph.D. studies in the UK. They taught IT, Mechanical Engineering and Electrical Engineering. Other copies were also distributed among seven Omanis who were doing their degrees in the University of Leeds- all in their first or second year- in Information Systems and Management (2 students), Mechanical Engineering (2 students), Computer Science (1 student) and Finance and Accounting (1 student).

The teachers' consultation consisted of two steps. In the first, I sent them the students' version of the questionnaire and asked them to comment on its language- its suitability for the language competence of the Technical Colleges students, as they know them. I also asked them to comment on the design of the questionnaire.

They advised me to make the language easier for the students and explain some of the items in more detail. They also suggested a redesign of the purpose question in order to

make it more straightforward. In the second step, I asked the same participants to answer the teachers' questionnaire after changing it according to the previous suggestions. This aimed at finding out how relevant the language uses were in relation to what they were accustomed to ask their students to do. The overall result of this pre-piloting phase was a simplification of the language of the questionnaire to make it more suitable for the language competency of the targeted students. This was done by the replacement of the technical terms and expressions with ordinary ones. Also, four items- 15, 29, 33 and 39 - were redesigned. In addition, the pilots spent between 7 to 15 minutes in answering the questionnaire, which I regarded as a fair time. The language uses that were involved in this questionnaire were regarded as feasible for use in the academic teaching of IT, Engineering and Business studies.

3. 6. 2. The Pilot Study

In the pilot study, 45 copies of the questionnaire were distributed among technical teachers and students. Two copies went missing. The distribution of the 43 remaining copies is shown in Table 17 below:

Table 17: the number of questionnaires in the pilot study.

Teachers			Students					
IT	Business	Engineering	IT		Business		Engineering	
5	5	4	Y1	Y2	Y1	Y2	Y1	Y2
			1	9	4	5	3	7

The participants were asked to comment on the language and clarity of the questionnaire items and rubrics, so as to point out any misinformation, ambiguity and/or irrelevant elements. No suggestions were made with regard to such points. The students answered the questionnaire in my presence and the questions they raised were tape-recorded for further analysis. The students' queries were all about the meaning of some abbreviations, phrases and terms e.g. FYP, aloud, forms, CV, Quoting, content, taking part, invitation, refuse, etc. This type of question revealed unfamiliarity with the words rather than ambiguity, and was solved by a prompt explanation of the meanings. Otherwise, students showed a reasonable understanding of the items and were able to finish the questionnaire within 25 minutes. As a result of the pilot study another box was added to the purpose question (section 2) to separate the participants' added reasons from the ones provided.

The piloting of the classroom observation showed the suitability of classroom observation as a research tool for the current study. The students and teachers were co-operative. The outcome of the pilot observation supported the idea of triangulation by providing evidence for the information that was given by students and teachers in the questionnaire and interviews. For example, these mentioned in the interviews that English was the primary medium of instruction in the technical classroom. By means of classroom observation, it was possible to make sure that this was true information. So, the possibility of misinformation from the informant was checked by this process.

It was also found that, unlike the Engineering students, the Business students had no practical classes and the IT classes took place in computer labs, which combined theoretical and practical teaching. This resulted in changing the original plan for classroom observation, which was divided between theoretical and practical classes. The new classroom observation plan, therefore, had to exclude practical classes from the Business and IT classroom observation and keep them for the Engineering.

In this pilot study, I conducted the interviews as planned with the eight targeted groups: the FYP students and teachers, and the Engineering, IT and Business students and teachers. Unfortunately, due to technical errors, the pilot interview with the FYP students was not recorded. The lesson I learned from this was that I needed to be more careful when I did the actual data collection, so as not to repeat the same mistake. The participants showed no reservations in answering the questions raised during the interviews, a matter that enabled me to gather information for all the stated questions. However, this did not mean that there was no hesitation at all. I had to spend some time at the beginning of each interview explaining to some of the students and teachers my purpose, the type of questions I had in mind and what I was going to do with the answers. Nevertheless, the overall impression was that the interviewees were cooperative and the information they provided me with (from my point of view) was useful.

3. 7. The Data Collection Process

The data collection took place at the Muscat and Ibra Technical Colleges, Oman, from 2nd November to 4th December 2002. The three research instruments interviews, classroom observation and questionnaires- were implemented. The students, teachers and heads of

departments in the two technical colleges were approached. The data collection schedule is shown in appendix 7.

3. 8. Trustworthiness of the Research

Trustworthiness is a concept introduced by Lincoln and Guba (1985) to mean a group of quality measurement criteria and techniques to maximize quality in qualitative research (Tashakkori and Teddlie, 1998). These criteria are influenced strongly by the principles underlying good quantitative research (Wedell, 2000). The four quantitative quality criteria are paralleled by four qualitative criteria as illustrated in Figure 15 below.

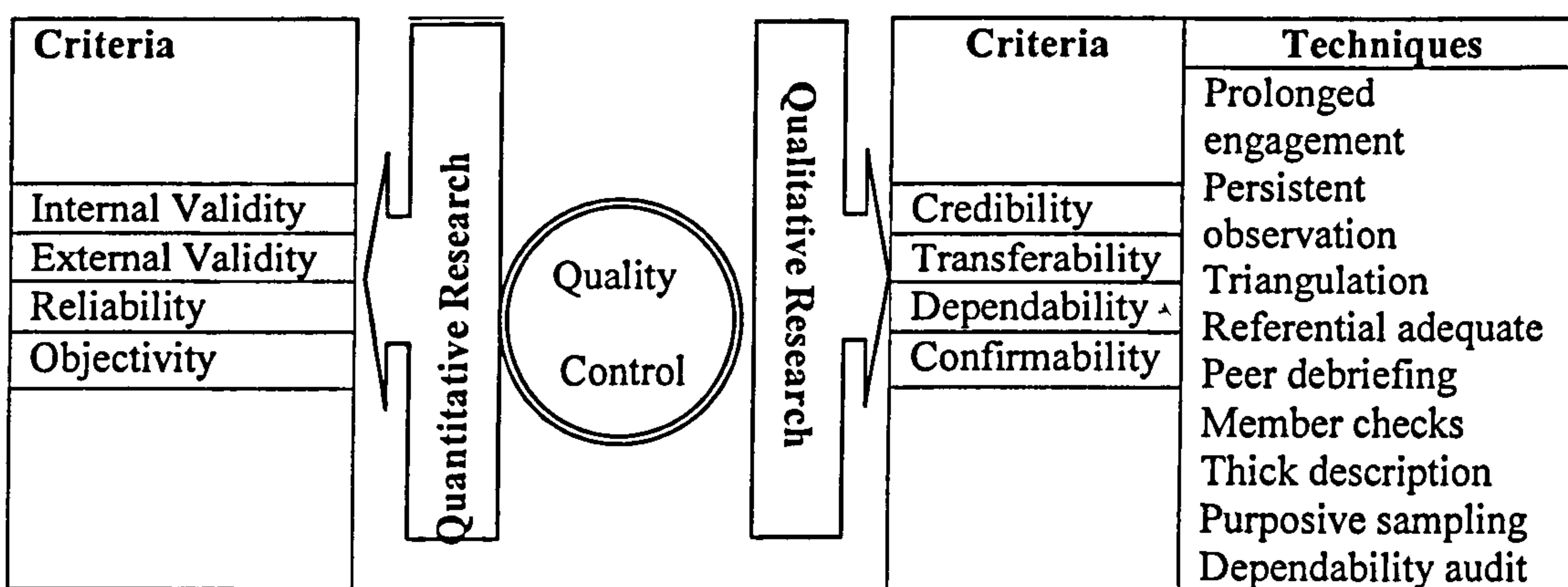


Figure 15: tools for ensuring quality in qualitative and quantitative research

Below I discuss the extent to which this research demonstrates the qualities of Trustworthiness, as shown in Figure 15 above. The tabular method is adapted from Wedell (2000).

3. 8. 1. Credibility

Credibility is parallel to validity in quantitative research (Olesen, 1998) and “*has to do with description and explanation and whether or not the explanation fits the description. In other words, Is the description credible?*” (Denzin and Lincoln, 2000 p 393). The strategies outlined for maximizing the credibility of qualitative work are discussed in Table 18 below.

Table 18: The extent to which the study is Credible.

Techniques to be considered	Actions taken by this study to ensure Credibility
<p>Prolonged engagement and Persistent observation (Lincoln and Guba, 1985 and Erlanson and others, 1993), “It is important that investigators spend an adequate amount of time in the field to</p> <ul style="list-style-type: none"> • build trust, • learn the culture • and test for misinformation either from informant or from own biases” (Tashkkori and Teddlie, 1998 p90) 	<ul style="list-style-type: none"> • I spent six years working on the case environment prior to the beginning of the study. • I have personal relationships of varying degrees of closeness with all the main participants from Ibra College of technology and some of the main participants from Muscat College of Technology. • Misinformation was tested during the pilot study (see 3. 6 p 136 above)
<p>Triangulation (Erlanson and others 1993), this includes triangulation of:</p> <ul style="list-style-type: none"> • “Sources (e.g., interviews and observations), • of methods (e.g., quantitative and qualitative)” (Tashkkori and Teddlie, 1998 p91) • “Are negative findings shown as well as positive?” (Wedell, 2000). 	<ul style="list-style-type: none"> • The study gathered its information from three main sources: the teachers and students of the 2 Colleges of Technology, the technical classroom activities and technical teaching/ learning material. • Three research tools were applied: questionnaire, interviews and classroom observation as well as genre analysis of technical documents. • No source of information was ignored and no groups or members of any group were excluded because of their view.
<p>Referential Adequacy materials (Tashkkori and Teddlie, 1998 and Erlanson and others 1993)</p> <p>1 “Are there sufficient background materials provided to generate a thick description?”</p>	<ul style="list-style-type: none"> • Relevant parts of the raw qualitative data are included in the appendices. • The material collected ensures the interpretation of the data according to the contextual factors, which may influence them.

<p>2 “Is sufficient information available for the reader to get a picture of the whole context?” (Wedell, 2000).</p>	
<p>Peer debriefing and members check (Tashkkori and Teddlie, 1998 and Erlanson and others 1993), the study</p> <ul style="list-style-type: none"> • Is debriefed by a disinterested professional outside the context of the study • and verified by persons within the context of the study either during the study or at its conclusion. <p>This aims at probing bias and clarifying interpretations.</p>	<ul style="list-style-type: none"> • The study has been read by my supervisors who are unconnected with the context of the study. Their comments and recommendations for change have always been appreciated and put into practice. • Consultation of colleagues on different topics relating to the research occurred several times during the study. • Full checks by members from the context were not carried out for the following reasons: <ul style="list-style-type: none"> •Logistics reasons: distance and time •From my personal experience in the Colleges of Technology I know that colleagues were involved in demanding pedagogical work and most often unable to spare time on serious academic reading. Unless they were able to take the thesis seriously it would not be worth doing.

3. 8. 2. Transferability

Transferability is concerned with the extent to which study findings can be applied in other context or with other respondents (Erlanson and others 1993). Two strategies are suggested to facilitate transferability in qualitative research, which are shown in Table 19 below:

Table 19: the extent to which the study is transferable

Techniques to be considered	Actions taken by this study to ensure Transferability
<p>Thick descriptions, which bring the reader closer to the context of the study (Erlanson and others 1993). So, “Is there a sufficiently detailed description of the data in context to allow judgements to be made about typicality and so, transferability?” (Wedell, 2000 p 71).</p>	<p>As explained in the relation to referential adequacy above, the data collected ensures a descriptive input of the context and its members. Further data is supplied in the appendices.</p>
<p>Purposive Sampling, which provide rich detail about the data and maximise the range of specific information that can be obtained from and about the context (Erlanson and others 1993).</p>	<p>This obtained- as clarified in the triangulation section above- by collecting data from all the possible sources using a combination of research tools and analytic methods.</p>

3. 8. 3. Dependability

This is concerned with the possibility of replicating the research or some of its aspects in a similar context or with similar participants. Dependability is judged by using Audit Trail (Wedell, 2000)/ Dependability Audit (Erlanson and others 1993), as shown in Table 20 below:

Table 20: The extent to which the study is dependable.

The techniques to be considered	Actions taken by this study to ensure Dependability
<p>Audit Trail (Wedell, 2000)/ Dependability Audit (Erlanson and others 1993), means that the process on which the research is conducted is made ready for an external check. So,</p> <ul style="list-style-type: none"> • “how possible is it to check on the processes through which the study was conducted? • Is there a clear account of the research process, how decisions were made about data collection and analysis? <p>Are all the research materials available for scrutiny?” (Wedell, 2000 p 72).</p>	<ul style="list-style-type: none"> • An account of the research process is attempted in this chapter. • Examples of all the research tools are provided in the appendices. • All the documents collected from the Technical departments, the returned questionnaire, the interviews tapes and their transcript are available for external check and scrutiny.

3. 8. 4. Confirmability

This is the judgment of the study “*in terms of the degree to which its findings are the product of the focus of its inquiry and not of the biases of the researcher*” (Erlanson and others, 1993 p 34). As Erlanson and others (1993) suggest, confirmability like dependability can be ensured by an audit which enables external parties to make a judgement about the product of the study. This is demonstrated in Table 21 below:

Table 21: The extent to which the study is Confirmable.

Techniques to be considered	Actions taken by this study to ensure Confirmability
<p>To ascertain Confirmability “it is necessary to:</p> <ul style="list-style-type: none"> • State the researcher’s position vis-à-vis the subject. • Discuss the possibility of interpretative bias as a result of choosing selectively from the data, over-emphasising dramatic moments, placing too much confidence on first impressions, or choosing unreliable informants. • Make the source of interpretations sufficiently clear to allow readers to track them to their source” (Wedell, 2000, p 72). 	<ul style="list-style-type: none"> • The participants, the research design and the data analysis are discussed in chapter 3. My position is discussed in chapter one. • The selection from the data is aimed at providing an insight about the reality of the context rather than providing illumination about it. • Interpretations are all linked with their sources in a manner that allows readers to track them back.

To conclude, whilst it may be true that “*the problem of how to assess qualitative research has not yet been solved*” (Flick, 2002 p 218), I nevertheless hope that in the light of the considerations pointed out above, this study, as reported in the forthcoming chapters is basically trustworthy.

3.9. Conclusion

This chapter has provided an overview of the design of the study methodology. The methodology presented is based on the research questions, study rationale and the study context that were discussed in chapter 1 and the theoretical discussion on needs analysis that was added in chapter 2.

Three types of data collection tools were developed and examined: questionnaires (quantitative approach), interviews and classroom observations (qualitative approach). In addition, an analysis of the technical documents was reviewed. It was pointed out that document analysis aimed at understanding the communicative and linguistic features of the technical genre in order to provide feedback to the FYP. It was also explained that six groups of participants were targeted for data collection: the FYP teachers and students, the technical teachers and students and the Heads of English and technical departments. The pilot study of the research instruments that took place in Ibra College provided an insight concerning the instruments practicality, validity and reliability. The pilot study showed that the participants were cooperative and keen to help carry out the main data collection at a later stage.

The study applied both qualitative and quantitative approaches of data analysis (Robson, 1993). WordSmith, SPSS and Microsoft Excel were used. Further discussion of data analysis methodology will be given in chapters 4 and 5, which will present a detailed data analysis.

Chapter 4: ANALYSIS OF THE QUESTIONNAIRES AND THE INTERVIEWS

4.1. Introduction

In chapter three a rationale was provided for the employment and design of the questionnaires and the interviews. In this chapter, the analysis of these two types of research instruments is presented. The questionnaire and interviews try to answer the following research question:

1. What are the learners' purposes in studying English in the FYP as perceived by:
 - a) the FYP students,
 - b) FYP teachers,
 - c) Technical Department students,
 - d) Technical Department teachers?

They contribute also in answering the following research questions, the answers to which are also gathered by means of genre analysis and classroom observation which will be discussed in Chapter 5:

1. What are the language needs of the students in Technical Departments: IT, Business and Engineering?
2. To what extent do the language needs differ- if they differ at all- among the different technical studies i.e. Engineering, Information Technology and Business?
3. What are the common language generic skills and knowledge among the technical studies?
4. To what extent do the skills and sub-skills developed in the FYP, match those needed in the Technical departments?

These two tools deal with two analytical contexts: the language learning context (FYP) which requires a 'present situation analysis' (Hutchinson and Waters 1987) and the language use context (the technical departments) which requires a 'target situation analysis' (Hutchinson and Waters 1987). In the target situation analysis, the focus is on students' necessities, although their wants are not neglected. The wants are addressed in terms of the language uses the students think that they need to acquire/perform when they join technical

studies. These were addressed by means of interviews when students were provided with chances to express what they think they need English for and what type of English they need. Necessities, on the other hand, refer to the actual language uses and skills that students need to acquire/perform in the target situation. The interviews also are concerned with the language learning context, the present, and what it should be. The participants were provided with opportunities to evaluate the present practice of the FYP. The students expressed their interests, preference and likes/dislikes. They are also asked to suggest ideas for the improvement of the programme.

In what follows, the questionnaire analysis is introduced in 4. 2. Background information about the participants is given in 4. 2. 1. The purpose(s) of learning English in the FYP as perceived by the participants is presented in 4. 2. 2. The language uses in the three technical specialisations: IT, Business and Engineering are shown in 4. 2. 3. These language uses are examined under four subheadings: generic language uses, language uses specific to Business, language uses specific to IT, and language uses specific to Engineering. Summary of the findings of the questionnaire analysis is given in 4. 2. 4. The interview analysis is provided in 4. 3. The methodology of interview analysis is explained in 4. 3. 1. The purpose(s) and objectives of the FYP as seen by the interviewees are discussed in 4. 3. 2. The principles underpinning the FYP as understood by the programme teachers are presented in 4. 3. 3. The importance of the FYP for the technical specialisations as perceived by the students and teachers in these areas is talked about in 4. 3. 4. The target language needs are presented in 4. 3. 5. The generic language uses are presented in 4. 3. 6. The students' and teachers' satisfaction with the FYP is discussed in 4. 3. 7. The participants' suggestions for the improvement of the FYP are displayed in 4. 3. 8. A summary of the findings of the interviews analysis is provided in 4. 3. 9. The chapter ends with a conclusion which is offered in 4. 4.

The results of this chapter alongside the results of chapter 5 are used to make recommendations for the improvement of FYP which is discussed in 5. 4.

4. 2. Questionnaire Analysis

The main objective of the questionnaire was to find out about the participants' perception of the purpose of studying English in the FYP and of the main language uses in each of the three technical departments. The language uses, as was explained in (3. 3. 1. above) were derived from previous studies in needs analysis, e.g. Qotbah (1990) Langroudi (1999)

Kelliny (1994) Sardi (1997) and Remache (1993) and my own experience as an English language teacher at Ibra College of Technology. The items were refined by the pre-pilot and pilot studies (see 3. 6. *The Pilot Study*, p 136 above). 348 teachers and students from the IT, Business and Engineering departments in Muscat and Ibra technical colleges participated in answering the questionnaire to be analysed here. Their responses to each item were calculated, and a list of the percentage of responses was compiled.

What I would like to make clear at this stage is that the questionnaire can only provide reported results. The information gathered by means of the questionnaires was reported by the teachers and students of the Colleges of Technology. Therefore, the data is useful but not conclusive unless backed up by data from other sources, especially classroom observation and corpus analysis which provide first-hand information about what actually goes on in the colleges. The following is an account of the analysis of the questionnaire components.

4. 2. 1. Background Information

Section 1 sought background information about the participants: whether as a teacher or a student, the department and college he/she taught/studied in, and the year of study he/she was in. The main purpose of this section was to ensure that all these types of people had a chance to participate in answering the questionnaire. All the teaching staff in the technical departments took part in this questionnaire. Also, 23% of the technical students in Muscat and Ibra colleges were involved in answering the questionnaires. More detailed discussion of the representativeness of the participants was provided in 3. 3. 1. p 123 above.

4. 2. 2. Purposes of Learning English in the FYP

The second section of the questionnaire tried to ascertain the participants': students and teachers, understanding of the reason (purpose) for studying English in the FYP. It was a ranked-responses (Burns, 1999) section. The participants were asked to rank 4 options from 1 to 4 according to their importance to them.

The participants' answers to this section were analysed as follow:

First, each group of participants' responses to each rank of the four purposes were calculated. This provided a picture of the overall importance of the four purposes, as perceived by each group of participants. The responses are shown in Table 22 below (the

figures represent the percentages of the responses to each ranking, as provided by each group).

Table 22: the ranking of purposes for studying in the FYP- the figures are in percentages.

The purpose	Participants' ranking											
	Technical Y1 students				Technical Y2 students				Technical Teachers			
	1	2	3	4	1	2	3	4	1	2	3	4
To use English in everyday life	26	22	23	28	22	30	29	18	16	16	29	40
To be able to study in An academic course	29	35	29	8	32	26	33	9	81	19	00	00
To use English in work	37	29	21	13	37	31	23	9	28	47	26	00
To pass the exam	10	12	26	51	10	13	14	63	23	14	21	42

This ranking of the purposes is made clearer in Figure 16 below.

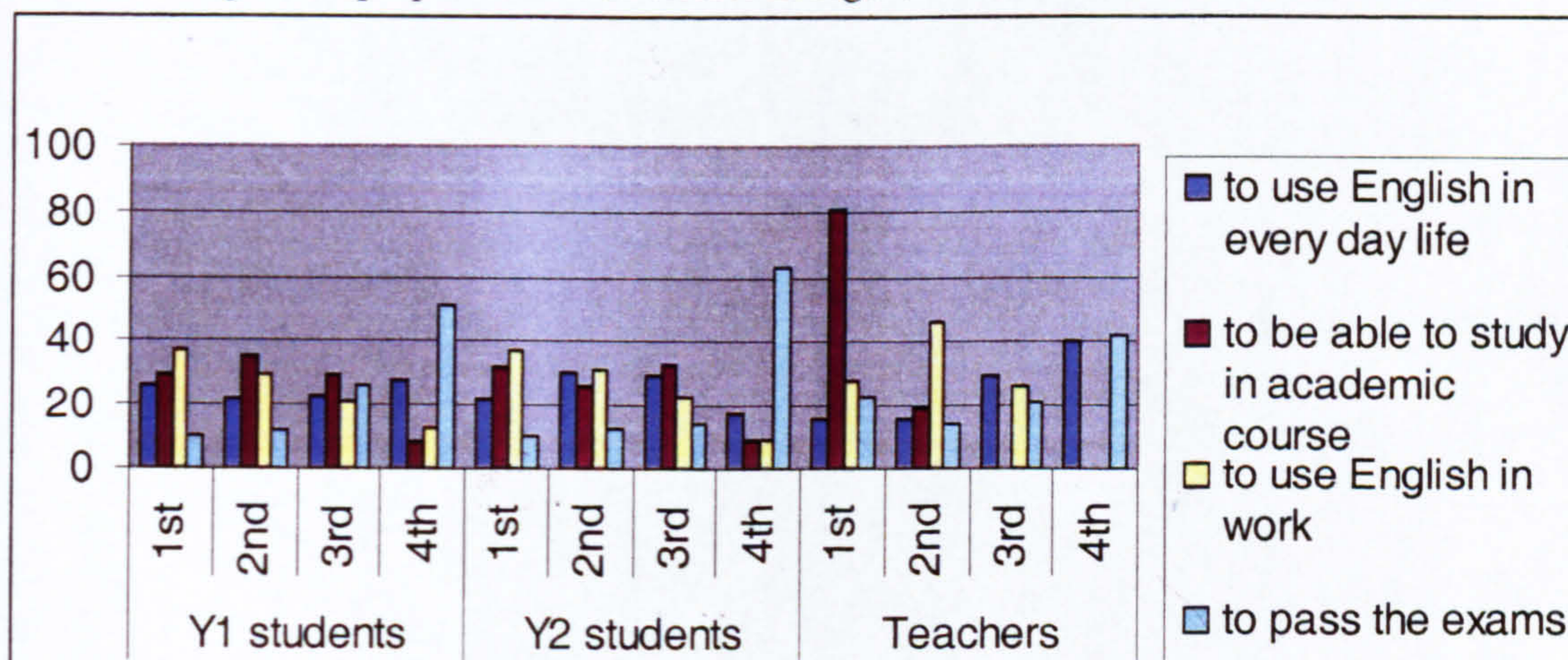


Figure 16: the ranking of the purposes of studying English in the FYP according to year 1 and year 2 technical students and technical teachers. The figures are in percentages.

Second, a comparison between the perceptions of the three groups of participants was established. This was based on the first ranking of the four purposes as each was associated with each group of participants. It was obvious that there was a remarkable difference in the participants' perceptions of the purposes for studying English in the technical colleges.

This discrepancy was clear between the teachers and students. Based on the first ranking, teachers' priority concerning the purpose of FYP as a language course was: using English in the technical course (81%), in the workplace (46%), to pass exams (42%), then in everyday life (40%). On the other hand, students' priority for studying English in FYP was: using English in the workplace (74%), in technical studies (61%), in everyday life (48%), then to pass exams (20%). This discrepancy in the participants' perceptions of purpose may be due to the absence of a clear understanding of learners' target needs and the documentation of objectives and the syllabus. This point, together with the issue of which of the four purposes should be the focus of the FYP, will be discussed further in 4. 3. 2. below, where new information, which was gathered by means of interviews will be interpreted.

To sum up the findings of this section:

- There is a discrepancy between the participants' understanding of the purpose of the FYP.
- As will be seen in 4. 3. 2. below, this finding is supported by the data collected in the interviews. The reasons for and effects of such differences will be discussed there.

4. 2. 3. Language Uses

This is a scale item (Burns, 1999) section. Participants, technical teachers and students, were presented with 38 language uses and asked to choose from 5 alternative responses of frequency: "very often", "often", "sometimes", "rarely" and "never". In this analysis these alternatives were grouped into two sets: "used" and "unused". "Very often", "often", and "sometimes" refer to items that were performed or used in the technical departments. "Rarely" and "never", on the other hand, refer to the items that were not performed or were unused in the technical specialisations. 50% was used as a cut-off point for responses under used/unused categories. So, 50% or more of the responses under the "used" category meant that the item was considered to be used in the technical setting. Similarly, 50% or more of the responses under the (unused) category meant that the item was not considered to be used in the technical setting. For how these items were chosen as questionnaire items see 4. 2 (p 147 above) and 3. 3. 1. (p 123).

It was explained in 3. 3. 1. that the language uses provided in this section of the questionnaire represent the four language skills common in English language teaching: reading, writing, oral skills (speaking and listening), some reading and writing texts as well as some communicative functions associated with them. What should be made clear here is that, these items are not analysed according to this classification in this section because what is important here is to arrange the responses according to the group of students using them and the years of study they are used in, in order to establish a generic use. This grouping (language skills/activities) will be used when more items are identified from the other tools and will be presented in 5. 4 below. In this section, therefore, the responses of each group of participants: IT teachers, Business teachers, Engineering teachers, year 1 Business students, year 2 Business students, year 1 Engineering students, year 2 Engineering students, year 1 IT students and year 2 IT students, were analysed separately. This helped to show which item was performed in each specialisation and in each year of study. It also helped to achieve a cross-specialisations comparison of language uses in order to draw on the generic similarity/diversity of language uses in the technical specialisations since, as was stated in chapter 3, one of the purposes of the questionnaire was to identify core/key skill(s) for technical studies in the colleges. A complete list of the analysed items is found in appendix 6. Here, the findings are listed under four headings: generic language uses, language uses specific to Business studies, those specific to IT studies, and those specific to Engineering studies.

4. 2. 3. 1. Generic Language Uses

There were 26 language uses reported as being generic. They were performed by both year 1 and year 2 students in all the three technical specialisations. These items were chosen as “used items” by 50% or more of each group of participants and are presented in Table 23 below (the figures represent the percentage of “used” responses). The right-hand column represents the total sum of responses given to each item.

There are 4 items, 1, 12, 19 and 23 in Table 23 below which show large differences between the students’ and teachers’ responses. The explanation I reached, after consulting teachers and students, is that items number 1 (reading newspaper and magazine articles), 19 (taking part in a group work/discussion) and 23 (giving short talks or presentations) take place more frequently as part of larger activities (e.g. assignments, projects etc.) when

students are asked to do certain types of assessed activities at the end of the semesters. Such work required working in groups and referring to published texts including books, magazine and newspaper articles. Assessment of some of these activities requires the delivery of short talks and presentations in front of the group. So, these language uses were more easily recognised by the teachers than by the students, who subsumed them within the larger scale activities of which they were part. For Item 12 (translating from Arabic to English), it was not usual for teachers to ask students to translate. The students, themselves, practised translation as a self-learning strategy. Therefore, this item was better recognised by the students than by the teachers.

Table 23: the language uses that are performed in all the three technical departments- IT, Business, and Engineering- as reported by the questionnaire respondents.

No	Language uses	IT			Engineering			Business			Total Of %
		Y1	Y2	Ts	Y1	Y2	Ts	Y1	Y2	Ts	
1	Reading newspaper and magazine articles	57	68	86	50	65	89	65	58	82	62
2	Reading advertisements	66	82	86	86	80	89	72	69	100	73
3	Reading a text to understand all or most of the information in it	92	92	100	97	90	100	96	86	100	85
4	Reading a text to understand the main information only in it	75	83	100	86	84	89	64	86	100	77
5	Reading aloud	81	59	64	68	58	87	70	58	100	59
6	Reading information from visuals	76	75	100	79	79	95	79	74	92	75
7	Reading for general ideas	89	93	86	92	76	100	87	78	100	80
8	Filling out forms	66	62	79	58	54	89	71	84	92	65.5
9	Writing plans for assignments/projects	74	81	86	78	75	95	78	59	100	73
10	Writing summaries of text or assignments	83	70	86	72	74	89	82	90	100	73
11	Taking notes from lectures	89	92	100	78	79	94	98	90	100	82
12	Translating from Arabic to English	95	87	64	62	75	50	79	85	64	66
13	Writing/ designing images	78	77	86	82	81	95	65	75	100	74
14	Explaining in writing the content of images	82	73	93	76	81	100	82	63	100	75
15	Writing a one-paragraph piece of work	73	73	93	78	69	89	92	82	100	81
16	Writing a multi-paragraph piece of work	74	71	77	81	68	100	67	62	100	70
17	Quoting	82	68	77	76	58	78	79	67	100	68.5
18	Using future verbs	58	59	61	61	54	74	69	67	82	58.5
19	Taking part in a group work/discussion	74	73	92	78	73	89	61	61	100	70
20	Giving oral instructions	84	75	92	70	79	95	77	65	83	72
21	Being interviewed	65	63	64	72	59	58	43	48	73	54.5
22	Giving opinions	87	79	79	70	69	79	74	60	100	70
23	Giving short talks or presentations	63	71	86	74	68	68	62	71	100	66
24	Writing an application letter	50	74	57	72	60	74	60	44	75	57
25	Correcting mistaken information orally	74	84	57	70	73	68	71	72	54	62
26	Making suggestions orally	71	76	64	58	70	83	75	65	82	64.5

4.2.3.2. Language Uses Specific to Business Studies

There were 32 language uses reported as performed by year 1 Business students and 29 language uses performed by year 2 Business students. 26 items were provided in Table 23 above, the other items are shown in Table 24 below.

There were four language uses that were reported as not performed at all in the Business specialisation. These consisted of “reading academic email messages” and “participating in a live email discussion”, “reading instructions or manuals” and “being interviewed”. There were three items reported as performed by year 1 Business students and a teacher but, not by year 2 students. There were, also, two items reported as performed by year 2 Business students, but not by year 1. There were a few items, which were given high responses by teachers and low ones by students (e.g. reading formal letters with general content). This is seen as normal because the teachers indicated a degree of use of such items in both years of study, while the students perceived them as used either in year 1 or year 2.

Table 24: the language uses that are not performed in Business studies either in year 1 or year 2, as reported by the questionnaire respondents.

The items		Y1 Ss		Y2 Ss		Teachers	
		Used	Unused	used	unused	used	unused
Items not used in either Year 1 or 2	Reading instructions or manuals	29	71	25	75	20	80
	Reading academic email messages	42	58	42	58	40	60
	Being interviewed	43	57	48	52	37	63
	Participating in a live email discussion	29	71	37	64	27	73
Items used in Y1 only, but not in Y2	Writing formal letters with general content	65	35	49	51	73	27
	Writing narratives	61	39	44	56	71	29
	Listening to radio and watching TV	67	33	48	52	73	27
Items used in year 2 only, but not in year 1	Reading formal letters with general content	49	51	52	48	60	40
	Searching the www	43	57	57	43	63	27

4. 2. 3. 3. Language Uses Specific to IT Studies

There were 37 language uses reported as performed by year 1 IT students and 36 reported as performed by year 2 IT students. There was only 1 item- “reading academic email messages” that was not carried out by IT students. 53% of year 1 students regarded it as not used and 55% of year 2 students regarded it as not used), although 79% of teachers marked it as a used item. Using email in academic correspondence between teachers and students was newly introduced in the IT departments, and it gained high frequency from teachers rather than students. There was only 1 item namely “writing a CV” that was reported as being performed by year 1 students (57%) but not by (54%) of year 2.

4. 2. 3. 4. Language Uses Specific to Engineering Studies

There were 34 language uses reported as being performed by year 1 Engineering students and 37 language uses performed by year 2 Engineering students. There was only 1 item- “participating in a live email message”- that all Engineering participants agreed on as not being used. 53% of year 1 students regarded it as not used, 55% of year 2 students regarded it as not used and 53% of teachers regarded it as not used. There were 3 items performed by year 2 students but not by year 1. These items were “reading academic email messages”, “searching the www” and “writing CV”.

To sum up the findings of this section:

- This analysis found that there were 26 language uses reported as generic.
- It also identified some language uses reported as specific to each of the three technical specialisations.
- The generic and specific items will be used with other data reported from this chapter and the genre analysis and the classroom observation analysis to construct the list of language uses in the technical specialisations that is presented in Table 44 (p 235 below) and to design course objectives for the FYP to achieve, as presented in Figure 23 (p 234 below).

4. 2. 4. Summary of the findings of the Questionnaire Analysis

There was a difference between students and teachers’ perceptions of the purpose of studying English in the FYP. That discrepancy was probably due to the absence of a written syllabus which may unite stakeholders' perception of the ultimate objective of the FYP. This point will be discussed in 4. 3. 2. (p 158 below). Regarding the language uses, there

were 26 items out of the 38 which were reported as being of generic use across the three technical specialisations. In each specialisation there were some items which were used by either year 1 or year 2. These, as was explained in 3. 3. 1. represent the four language skills common in ELT (reading, writing, speaking and listening), some reading and writing texts and some communicative functions associated with them.

As to the use of the questionnaire in this study, it proved to be a useful tool for collecting data from large numbers of participants. However, it is insufficient by itself to provide an efficient picture of the learners' needs. Therefore, this study recommends that if the questionnaire is to be used in NA it should be triangulated with other tools.

4. 3. Interview Analysis

This section analyses the data emerging from the interviews that were conducted with FYP and technical students, teachers and heads of departments. The students and teachers were interviewed in focus groups of 4-6 members (20 FYP teachers, 28 technical teachers, 36 FYP students and 88 technical students). The eight Heads of departments were interviewed individually. Thus, 37 interviews were held, as shown in 3. 3. 2. (p 128 above). As stated in the methodology chapter (3. 3. 2.), the interviews seek answers for the following questions:

1. What is/are the purpose(s) of the FYP as understood by the interviewees?
2. How important is English for the students to succeed in Technical studies, as perceived by the interviewees?
3. What are the language needs of technical studies as perceived by FYP students, teachers and Heads of Departments and technical students, teachers and Heads of Departments?
4. Do the FYP teachers feel that they need to know the language needs of the students in technical studies? If so, how should it be done?
5. What are the language core/key skills as perceived by technical students, teachers and Heads of Departments?
6. To what extent is the FYP capable of providing the FYP students with the required language skills to cope with the demands of technical studies, as perceived by the interviewees?
7. What are the areas that need improvement? How should they be improved? Is there anything that makes improvement difficult?

4.3.1. Analysis Methodology

The analysis of the interviews started with their transcription from the audio cassettes to provide *“a true record of the original interview”* (Drever, 1995, p 60). Examples of transcripts are provided in Appendix 4. Interviews The interview questions were used as categorisation codes and a descriptive framework. *“A code is a symbol applied to a group of words to classify or categorize them. They are typically related to research questions, concepts and themes. Codes are retrieval and organising devices that allow you to find and then collect together all instances of a particular kind”* (Robson, 1993, p 385). Categorising and grouping the data, according to the issues treated by the questions, provides an analytical framework (Robson, 1993).

The information gathered was then analysed according to the issues related to the above questions. Therefore, this section is divided according to the question topics. Each subsection contains the answers provided by each group of participants to each question. Identifying group views (Drever, 1995) was important for this study, since the participants had different responsibilities and, of course, different views. Therefore, some topics are examined according to the perceptions of the group of participants expressing them. The purpose of the FYP, for example, is discussed under sub-titles: FYP teacher, FYP students, technical teachers and technical students.

Further, I distinguished the various utterances of the different interviewees by writing before each utterance: student A, student B, student C or teacher A, teacher B, teacher C, for example. This helped me to count the number of participants who held certain views, because it was important to distinguish between ideas which were held by groups from those which were held by single individuals. I, also, transcribed my questions, distinguishing them by the tag word “interviewer”. Finally, all interviews were transcribed in English. The interviews with technical and FYP staff were conducted in English. The interviews with students, which were conducted in Arabic, were translated.

All the quotations in the following analysis were from the recorded interviews that I made with the teachers and students of Muscat and Ibra colleges of technology. Maintaining confidentiality, nevertheless, has prompted me to refer to the participants in the broadest possible terms. For instance, heads of departments’ points of view are discussed within the teachers’ section because referring to each of them as head of FYP or head of IT, for

example, would reveal his/her identity. The transcription of the interviews is provided in appendix 4.

4.3.2. The Purpose(s) and Objectives of the FYP

Information about the purpose of the FYP was gathered from the FYP teachers, heads of departments and students and technical teachers, heads of departments and students. So, the answers to the following questions are dealt with here:

- Do the FYP students think that they need the FYP?
- What is the Technical students' understanding of the purpose of the FYP?
- What is the purpose of the FYP as perceived by FYP Teachers?
- How do the Technical Teachers understand the purpose of the FYP?
- How do the Heads of the Technical Departments (Engineering, IT and Business) understand the purpose of the FYP?
- What are the objectives of the FYP? How were they set? And by whom? As seen by Heads of FYP.

There were five different views about the purpose of the FYP held by the interviewed students, teachers and heads of departments. These different views are shown in Table 25 below. The figures in the table are the total sum of the responses given to each item by the group of participant in each column. Dotted boxes mean no answer was given.

Table 25: Purpose of FYP as perceived by interviewees.

The Purpose	Number of participants				Total
	FYP Ts & HoDs	FYP Ss	Tech Ts & HoDs	Tech Ss	
To be able to study in the academic courses	11	30	34 (100%)	29	104
To use English in work	5	10	---	48	53
To use English in everyday life	---	20	---	10	30
Preparing students for technical studies and work life	16	---	---	---	16
To improve students' proficiency in English regardless of its target use.	5	---	---	---	5

This finding supports in two ways the findings of the purpose section in the questionnaire, which was discussed in 4.2.2. p 148 above. First, it supports the finding that the majority

of the technical students considered the purpose of the FYP that of being able to use English in work and the majority of the technical teachers regarding the purpose of the FYP as being to help students to study in the academic course.

Second, and most importantly, this finding shows a discrepancy in the participants' opinions about the purpose of the FYP. As shown in Table 26 below, the majority of each of the four groups of participants had their own understanding of the purpose of the programme.

Table 26: The purpose of the FYP as perceived by each of the 4 groups of participants.

The group	The purpose
FYP students	To be able to study in the academic course
FYP teachers	Preparing students for technical studies and work
Technical students	To be able to use English in work
Technical teachers	To make students able to study in the academic course

This uncertainty about the programme's purpose may be because its objectives are not written down, so each individual understands the purpose in his/her own way. The interviews revealed that 1 FYP teacher asserted that *"the objectives of the programme are written and they are handy to all the teachers"*. In fact, what this teacher was referring to was a mere leaflet with some brief information about the programme, for example, that the programme lasts one academic year. Such a paper cannot provide rich and thorough information about the programme, which all participants can use as clear guidance. On the other hand, 17 teachers explained that they had no written programme objectives. Some pointed out that they depended on their own experience to understand the objective; as one teacher said *"...after spending some time... I tried on my own to read some books which explained different programmes, for example, how to teach listening, speaking with different levels of students and I got the idea"*. This was, I think, why five teachers suggested that the FYP should have a written syllabus.

As mentioned in the literature review (p 83), in a needs analysis process, such as the present one, it is normal to find conflicting views. For example, Kelliny (1994) considers that the EFL teachers' perception of the goal of the English course was primarily to meet

the students' academic needs. The students expected the English programme to meet, in addition to their academic needs, their professional and general needs as well. The academic teachers, on the other hand, understood the function of the language course was to meet the students academic and professional needs (Kelliny, 1994).

The needs analysis literature suggests that there is no clear-cut answer as to how the conflict between learners' views and other stakeholders' views (teachers, employers) can be solved. This should be left to the particularities of the context. The analyst should decide according to those particularities whose needs to give priority to, in deciding on the purpose of the programme (Hutchinson and Waters, 1987 and Sardi, 1994). As the analyst, I have tried to measure the five purposes against the criteria of the Wants- the subjective language needs and necessities- the objective language needs of learners. (Hutchinson and Waters, 1987).

Studying English in order to be able to study in the technical department, I think, is the most reasonable purpose for both the FYP and its students. First of all, English is very important for the technical departments. It is the medium of instruction, textbooks, references, exams, homework, assignments and final projects in the technical studies, as pointed out by the technical teachers and students interviewed and as revealed by the document analysis and classroom observations. Second, the technical teachers and students emphasised the important role that the FYP plays in preparing the students for the technical specialisations, as will be discussed in 4. 3. 4. below.

Studying English for work was another sound purpose because, the students- or some of them- enter employment which requires English language use. Yet, in my view, it is not entirely reasonable to make "Studying English for work" the ultimate purpose of the FYP. English for Work/occupation Purpose programmes provide students with the language needs specific to the work contexts. The FYP graduates, however, do not go to work directly after finishing the language course. Before work they have to join the technical course. The needs of the two contexts- work and technical course- are different in many ways. Students of the same specialisation deal with different genres, perform different language uses and need different skills in each context. For example, technical studies require an acquaintance with study skills, such as note-taking, referencing, and quoting etc., which are not required in most work contexts. In addition, students work in study contexts

with genres such as textbooks, articles, handouts, which are not used in the work place. So, students graduating from the FYP who are unable to perform the language uses required in the technical courses might have tremendous difficulty in their technical studies and might eventually fail to graduate.

Using English in life including using it in travelling abroad and to help younger brothers and sisters learn English is not a relevant purpose, and it is a 'want' rather than a 'need'. I believe this is so, because there is a limited use for English in students' everyday life. Arabic is the language of society which is spoken inside and outside the home. The technical teachers themselves pointed out that the students do not use English outside the classroom. One teacher explained "*What is happening right now is that in the classroom they are learning English, outside the classroom they are communicating in Arabic among themselves and with the administration staff...*". Similarly, 'appreciating other cultures', the purpose mentioned by an FYP teacher, I think, cannot be a realistic purpose of the programme. The programme does not teach the culture(s) of English-speaking societies as such. Wherever there are cultural aspects in the teaching material they function as means for understanding the language rather than as ends.

Studying English to pass exams alone is not a constructive purpose for the FYP. Yes, students have to pass the exams in order to join technical studies, but the purpose of the FYP should not be limited to teaching the students the skills and knowledge specific to exam demands. I believed that the students' need for English was more than passing the exams. It was satisfying to see that the students place it last among the purposes, as presented in the questionnaire (see 4. 2. 2. p 148 above). Furthermore, none of the interviewed students mentioned it as a purpose for studying in the FYP.

I decided that the main purpose for the FYP is **teaching students English in order to make them able to study in the technical departments**. I think it is a useful conclusion. First, it helps in identifying the FYP as a goal-oriented or directed (Robinson, 1989 and 1999) programme which aims at fulfilling a pre-set aim which needs to be made explicit. Second, it specifies an identifiable context in which its learners' language needs can be investigated and named. This, consequently, can help in designing an FYP syllabus, selecting appropriate teaching material, and using the most suitable teaching methodology. Thus, for the current study, the language needs analysis focuses on the technical

specializations which are perceived as target contexts for the FYP students. An examination of the students' language needs in such areas has been carried out and will be concluded in 5.4 below.

To sum up the findings of this section:

- There was a discrepancy in the college students and teachers' understanding of the purpose of the FYP. This finding supports the outcome of the questionnaire section 2.
- This discrepancy could be due to the absence of a written syllabus. Availability of a syllabus might help unite the stakeholders' views about the purpose of the programme.
- This finding about the diversity in the candidates' understandings of the purpose of the FYP and the absence of a written syllabus sets the scene for this study to focus on analysing the language needs of the college students in order to recommend ways of improving the FYP, so that its purpose may be clearly understood by all participants.

The absence of a written syllabus also seems to have affected the FYP teachers' understanding of the underpinning principle of the programme, as discussed in the forthcoming section.

4.3.3. The Underpinning Principles of the FYP

The information for this point was gathered from the FYP teachers and heads of departments who were asked the following question:

What are the principles underpinning the FYP?

The interviewees held four different views of the underpinning principles of the FYP, as shown Table 27.

Table 27: The ideas the FYP teachers and Heads of Departments hold about the underpinning principle of the FYP.

1	To some of them it was a communicative approach programme. Its main purpose was to help students <i>"communicate in daily life"</i> .
2	Others said, <i>"it is simply general English"</i> .
3	Others think that it was an ESP
4	Furthermore, some believed that <i>"it has been swinging between general English and ESP"</i> .

The participants' disagreement on the underpinning principles of the course is evidence that the FYP lacks standardisation which is a necessary requirement in educational institutions (Hutchinson and Waters, 1987). To establish uniformity among teachers in terms of the principles of the programme, there should be a syllabus available in the Colleges of Technology. It should be based on the learners' needs and should provide a clear statement of the nature of language and language learning in the FYP. The learners' needs identified in this study can act as a base for the design of such a syllabus. Developing a syllabus on such findings is likely to require, consequently, a 'cultural shift' (Wedell, 2003) among the community of FYP teachers. What the present study is aware of at this stage is the requirement to address the teachers' needs in order to ensure a successful use of the suggested syllabus. Supporting teachers' to make the recommended professional adjustment (Wedell, 2003) is one of the implementation-needs (Waters and Vilches, 2001) this study acknowledges at this stage. The implications of the study for the FYP and the teachers' implementation needs will be discussed in more detail in 6. 5.

To sum up the findings of this section:

- The FYP teachers held different views of the underpinning principles of the FYP. This diversity may be due to the absence of a written syllabus.
- This finding supports those of the previous section about the absence of a written syllabus and its effects upon the clarity of purpose and nature of the programme.

4. 3. 4. The Importance of the FYP for the Technical Departments

The information for this point was gathered from the technical teachers and heads of technical departments. So, the answers for the following question are discussed here:

- How important is English to technical studies/departments? (asked to Teachers and Heads of the Technical Departments: Engineering, IT and Business)

As pointed out by all the technical teachers and heads of departments who took part in these interviews, the FYP was important for the technical departments because English was the medium of instruction, textbooks, references, exams, homework, assignments and final projects in all the three technical departments. Therefore, a reasonable level of English was necessary if the students were to be able to do well in technical studies. One Business teacher explained *"...as the students come from schools without the required level of English, of vocabulary, of IT skills or of mathematics, so the FYP must bring them up to the college level"*. IT teachers, also, held the same view. One of them said *"our students come from public schools and their English language is not very good, so they really need to improve their language and that is why I think a foundation course is very important to improve their language, as well as to acquire some skills like maths and computer, because most of the students did not take computer in their schools"*. One of the Engineering teachers said *"... the students who come to us should be able to understand us. They should have enough knowledge of English"*. *"In the lab it is necessary to know how to explain a graph, figure, tables. This is necessary, because in making experiments they need to explain them"*.

According to the technical teachers, the three different specialisations need a similar demanding level of English proficiency, yet lower levels of English might be needed in some specific subjects, for example, Maths, which is a subject taught in IT but unlike other IT subjects, needs only a low level of English. A maths teacher explained: *"I don't think they [students] need much English. It is only the terms like subtraction, addition, etc. that they need to know. They have to choose the English terms, so instead of saying (س) [pronounced as seen] and (ص) [pronounced as sad] in Arabic they say in English (X) and (Y). So, I think students shouldn't have that much of a problem in maths. They did a lot of maths in Arabic, so they now do the same thing but in English terms. So, all they have to do is to convert these terms from Arabic to English"*. This idea is also repeated by an Engineering teacher who says, *"the need for English varies between courses within the technical departments. Students find some courses do not need much English, like mathematics which can be read by numbers, some courses are very difficult to understand... the problem is that some subjects sometimes need more English than the*

others". In Business a good level of English is always recommended. One Business teacher explains, *"a student without a knowledge of English cannot participate at all in the classroom"*.

The implication of these similarities and differences in the level of English needed in the technical specialisation for the FYP is that the high and demanding level of English which is a cross-specialisations feature should be set as a standard and a target, rather than the low and less demanding level which is limited to some specific subjects within each specialisation. All students of all specialisations should be taught to obtain the maximum level of English needed.

To sum up the findings of this section:

- Learning English in the FYP as perceived by the technical teachers and heads of departments was important for the students to be able to meet the language demands of the technical studies in which English was the medium of instruction, textbooks, exams, assignments etc.
- The study suggests that the FYP should be designed to help the students achieve the maximum level of English needed in the three specialisations: IT, Business and Engineering. This is because the study finds that all three specialisations require a high level of English. It also finds that the differences in the required level of English occur only at the subject level rather than specialisation level.

4.3.5. The Target Language Needs as Understood by the FYP Stakeholders

The information for this point was gathered from the FYP teachers, heads of departments and students. The answers to the following questions are discussed here:

- What do they know about the language demands of technical studies? And How? (FYP students and teachers)
- To what extent do they think that the skills the FYP provides for the students meet what they actually need in technical studies? (FYP Teachers)
- What are the actual language needs of the FYP students? How have they been identified? And how clear are they to the programme developers, EL teachers and the students? (Heads and teachers of FYP).

1. FYP Staff

There were two distinct opinions among the FYP teaching staff (including the Heads of Departments) about the students' language needs. Some teachers said that the language needs were clear, others said not.

For a minority of FYP teachers who think they know the students' language needs, personal experience rather than standards seems to play a major role. For instance, one teacher said, *"I am teaching students (English) in the IT department and from my experience over the past three/four years I have a clear idea of the requirements"*. Another teacher (talking from his experience) said, *"I can speak for myself, I have a fair idea of the requirements of the students when they take up IT or Engineering. At the moment, this ESP requirement is not being addressed in the foundation..."*. One teacher said that *"language needs analysis was done when the GNVQ was introduced"*. In fact, the other FYP teachers were not familiar with the language needs analysis this teacher was talking about. I myself have worked in the Colleges for eight years and it was the first time I had heard about such needs analysis. This group of FYP teachers, who think that they know the learners' language needs in the technical studies, also think that the skills the FYP provides the students with meet what they actually need in the technical studies.

On the other hand, 17 FYP teachers (77 % of the interviewed group) thought that the students' language needs were not clear to everybody, e.g. teachers, students. A teacher said, *"in terms of coordination between the [technical] departments and the English department we do not have any. We do not know what they want from us, what they want us to teach"*. Therefore, this group of teachers thought that the FYP did not provide the students with all the skills that they need in their technical studies. On their hand, the technical teachers urged the FYP teachers to consult them on the language component that they teach to the FYP students. An IT teacher explained *"before students go to technical departments for example Engineering, Business, IT, we would like to have a department meeting where the English teachers ask us what are the things we would like the students to have..."*. The lack of communication between the language programme and the academic departments also was found by Qotabah (1990). He asserts, *"there was a lack of cooperation between the ELTU and the other faculties as far as the exchange of information and discussion on students' performance is concerned"* (Qotabah, 1990 p 264).

All the interviewed FYP teachers agreed that it was important for them to know the students' language needs. To do this, one of them suggested that *"there should be some research about doing so. There should be some specialized and highly-qualified people who can do that... who can establish contacts with the private sector, the staff members, the students and with the Ministry"*. The interviewees did not think that it was possible for the English Department staff to do such research because of the teaching load they had; one of them said *"...if we were to do some research work there should be a group who were not given any load except that work..."*.

2. FYP Students

The FYP students were not very sure about the language needs in the technical studies. A student said, *"we cannot say now what we need and what we don't, because we know nothing about the study specialization"*. Therefore, they had different ideas about what was most needed in the FYP input for successful and efficient subject learning. As one of them said, *"we need everything (we study in the FY). Now we study reading, writing and listening"*. On the other hand, another student said, *"No (we do not need everything), for example, the reading is not relevant, we do not read the textbook outside the classroom"*. Another student said *"If I join Engineering I do not need everything. For example, I need to know how to write a letter, but I do not think I need grammar"*. Another student said *"we need listening because we listen to the teachers speaking; we need reading because we read a lot of books, writing because the exams are written"*. Twenty seven of these students thought that they needed an *"advanced level"* of English to be able to study in the technical departments.

Thirty-one FYP students mentioned that most of information they had about the technical studies was gained from their companions who had already joined the technical studies. A student said, *"we ask our friends who are students in the technical course. They tell us about the study there"*. *"The college has not inducted us to the technical course"*. *"There are some booklets about these specializations but they not available to every student"*. *"We do not have a clear picture about the technical course"*. Students said that *"knowing the specialization in advance helps us to study harder in order to join the specialization we want"*.

To sum up the findings of this section:

- There is a need for a systematic and comprehensive analysis of learners' needs in the colleges of technology, such as the present study. This conclusion was arrived at by finding out that:
- most of FYP teachers asserted that the students' language needs were not clear to them.
- It was, also, found that personal experience rather than research played a major role in constructing the beliefs of the FYP teachers, who thought that they knew the learners' language needs.
- The absence of a clear picture of learners' language needs led learners to depend on misleading sources such as mates and personal expectations, in understanding the language demands of the technical studies.
- There is a discrepancy among the students regarding their language needs in terms of knowledge, skills and subskills. Disagreement among participants in terms of what should be given more emphasis is also found by Sardi (1997) and Qotabah (1990)

4.3.6. The Generic Language Uses (skills/subskills) of the Technical Specialisations

The information for this point was gathered from the FYP Heads of Departments, technical teachers, Heads of Departments and students. The answers to the following questions are discussed here:

- Are there any skills that they regard as key/core skills? Which? And why? (Heads of FYP, technical teachers and Heads of Departments)
- To what extent do the language uses experienced by the different technical students differ/unite throughout the different specialisations so that a concept of key/core skills can be established? (Technical students)

The interviewees pointed out that there were some key/core skills. They believed that because the three different technical specialisations follow the same academic and administrative regulations, e.g. same assessment system, material etc., the students of all the three domains were required to perform certain types of similar activities. The interviewees pointed out that the key or core skills could cluster in three main areas, the classroom activities, the assessment activities and study skills. The examples provided to support such categorisation are illustrated in Table 28 below.

The interviewees were unable to recall within the time limit of the interviews all the language uses that take place in the technical departments, bearing in mind that some of them occur at different times during the course e.g. assignments at the end of the semester. Because of that, what was mentioned by the interviewees is not comprehensive. Nonetheless, the questionnaires, the genre analysis and the classroom observations have revealed richer information on the core skills and language uses in the technical specialisations. This may raise question about the suitability of interviews to find out about detailed needs. What the interview provided was almost a a general idea about the learner' language needs. Therefore, there is a need to triangulate resources and tools in NA. More thorough and specific information about the language needs can not be obtained by interviews but by text analysis and questionnaires.

Table 28: Language uses in technical specializations mentioned by the interviewees.
(The figures are the numbers of interviewees who mentioned each item. Total refers to the total sum of interviewees who mentioned the item)

The area	The language uses	number of times mentioned			
		Busi.	IT	Engi.	Total
Assessment activities	Writing reports	11	9	14	34
	Doing assignments	9	6	8	23
	Read references and books for information for reports and assignments	13	10	12	35
	Performing presentations	6	5	7	18
	Doing quizzes	8	6	5	19
Classroom activities	Note taking	15	18	18	51
Study skills	Translating from English to Arabic and vice versa	9	6	9	24
	Doing homework	7	5	9	21
	Using dictionary to look up meanings	7	5	7	19

To sum up the findings of this section:

- The interviewees believed that there were some key/core skills among the three technical specialisations, but were not necessarily able to identify them.
- Interviews are not suitable tools for providing detailed information about learners' needs. More thorough and specific detail should be obtained by other tools such as text analysis and questionnaire, if designed properly to achieve such a purpose. There is, therefore, a need to triangulate tools and resources in NA.

4. 3. 7. Students' and Teachers Satisfaction with the FYP

The information for this point was gathered from the FYP and technical teachers, students and Heads of Departments. The answers to the following questions are discussed:

- To what extent are the FYP graduates able to cope with the challenges of the language demands of the technical studies? (teachers and Heads of the Technical Departments: Engineering, IT and Business)
- Is the present practice in the FYP sufficient to meet the language needs of the learners? (FYP heads of departments)
- To what extent has what they studied in the FYP helped them to cope with the requirements of technical studies? (Technical students)
- What language uses if any does the FYP not provide them with which they think they might need to? (FYP students)

1. FYP Staff

The FYP members of staff had two contradictory positions as regards satisfaction with the FYP. The majority were fairly satisfied with the programme. One of them explained his satisfaction by saying *"for me, in comparing students when they come first and when they finish mostly there is a very, very big difference. So I think that 70% of the goals or the objectives are achieved"*. As explained in 4. 3. 2. above, the FYP objectives were not clear to the programme stakeholders.

However, answering a question about whether the FYP now provides the students with all the language skills they need in the technical studies, an FYP teacher said, *"no, not really..."*.

2. FYP and Technical Students

Regarding the FYP students, 28 of them (77%) were dissatisfied with the programme. In addition, 71 (80%) of technical students (FYP graduates) expressed dissatisfaction. These students did not think that they achieved a good level of English in the FYP, and because of their low achievement in the FYP they were unable to do well in the first academic year.

On the other hand, 15 technical students (17%) expressed their satisfaction with the FYP. These students thought that studying in the foundation programme helped them a great deal to be able to study in the technical course.

3. Technical Teachers

All the Technical teachers- 34- were dissatisfied with the language competency of the FYP graduates. For example, an Engineering teacher said, *"the problem we have is that the students who come from the foundation are very weak in English"*, because *"their English is not as good as we want"*. Another Engineering teacher said *"they [the students] are very poor. Only 10% or 15% of the students are very good in English. The majority of them are very poor in communicating or in written English and in understanding English"*.

Similarly, a Business teacher said *"the FYP graduates are too weak in English to match the demands of the Business studies, therefore we have to simplify everything for them"*. *"Out of 100 you can find only one or two students with reasonably good English. The majority of students, when asked to read a paragraph, or when asked to rephrase things, are totally unable to do so"*. *"Some of the students are very weak, you can take exceptional cases as good students"*. *"Students are even unable to use simple expressions in English, for example, it is too hot today"*. In providing an example of how weak his students are in English, a Business teacher said, *"I now teach them "Business correspondence" and I asked them to produce an application letter, which they will use to apply for a job when they graduate. So, far I have received nearly 40 letters, and not even one single letter is 100% correct. So they do not have the mechanism to keep writing good sentences. So, they cannot write 4 lines, one paragraph, without needing corrections. So the foundation should teach our students how to write a reasonably structured paragraph. For example, this is one practical lesson, which I have spent nearly more than 6 hours on: how to write a simple letter addressing it to your general manager. This is 3 or 4 lines full of mistakes and if you*

want to evaluate that letter you give it minus. This is only an example. And this student is one of the reasonable students".

In IT the case was slightly different. In maths and in the practical class where there was no need for a great deal of language, the teacher did not notice the weakness in the students' competency, but in the theoretical class the students' weakness was more noticeable. An IT teacher explained this problem by saying *"in Maths we don't have any problem with them (students). In Computing the problems come in the theoretical classes, but not in the practical ones". "There are two different types of courses within IT. We have a practical course and a theoretical course. In the practical they do not need the language that much, they need to practise with a computer, but in the theoretical there is a lot of talking, so it needs an advanced level of language. I taught both types (practical and theoretical) and I found that in the practical students' understand more and even do better... more than in the theoretical... but most of them work very hard to understand the lecture"*.

The common areas of FYP graduate language weakness, as pointed out by the interviewed teachers and students, are illustrated in Table 29 below.

Table 29: Common areas of weakness, as mentioned by the interviewees.
(The figures show the number of participants who mentioned the issue)

Area of weakness	Times mentioned			
	Busi.	IT	Engi.	total
Sentence structure	6	6	9	25
Grammar(tenses, third person singular)	8	4	9	21
Shortage of vocabulary	18	16	20	54
Pronunciation for example /p/ and /b/	8	4	14	26
Handwriting	14	11	8	33
Spelling	20	17	17	54
Reading skill	9	8	15	32
Rephrasing skill	15	8	6	29

This study takes these weaknesses into account when discussing the recommendations for the FYP improvement in chapter 6, where the implication of the findings of the study will be discussed.

To sum up the findings of this section:

- The majority of the interviewed students and teachers were not satisfied with the FYP. This finding is consistent with other studies' findings, for example, Qotabah (1990) who finds that the teaching of English in the University of Qatar caused much dissatisfaction, and Al-Otaiby (1994) who finds that the English language course at the MLI was inadequate in terms of input.
- The areas of common weakness mentioned by the interviewees were taken seriously by this study and contributed to the recommendations made in Chapter 6:.

4. 3. 8. Participants' Suggestions for FYP Improvement

The information for this point was gathered from the FYP and technical teachers, students and Heads of Departments. The answers to the following questions are discussed here:

- What are the areas of language competence that need improvement that can be suggested for the improvement of the FYP? Are there any common areas of weakness in students graduating from FYP? (Technical Teachers)
- Are there any area/s of language uses that they would like to be emphasised further in the FYP? (Technical students)
- How could the FYP be improved in order to be more effective in fulfilling its purpose? Are there barriers that may handicap such improvements? If yes, what? (FYP Teachers)
- What language uses does the FYP not provide them with which they think they need? (FYP students)
- What do they suggest for the improvement of the FYP? Are there any barriers that may hinder such improvements? (Heads of FYP)
- What are the areas of students' language competence that they consider should be further emphasised in the FYP? Are there any common areas of weakness? (Heads of the Technical Departments: Engineering, IT and Business)

Interviewees made different recommendations for the improvement of the FYP. The FYP teachers focused on the need to identify the FYP goals clearly and have a syllabus for the FYP. One teacher explained "*...the specific objectives of the programme are not clear,*

because they are not written there and they are not explained at all... they should be explained... every new teacher should be informed about them... and even students themselves should know about the outcomes... the goals... students themselves don't know about them... it is one of the mistakes...". Another one said "...talking about the programme itself the goals should be identified clearly for the teachers and even students...". Another teacher said "we need a syllabus we don't have one...".

Streaming students according to their future specialisations while in the FYP and providing them with the specific technical English they need in the area of study they choose was one of the demands stressed by the technical teachers and students. A business student said "*... the students are assigned to the FYP ESP English according to their areas of technical studies, so when they move to the technical studies next year they will find the language of the specialization easier for them and don't have to spend a great deal of time with the language". Another one also made a similar suggestion, "I suggest that in the first semester the students study general English but in the second he/she is given an introduction to the different specialization in the college so that the student knows in advance what to study". An Engineering student also made a similar point " the FYP did not familiarized us with the English used in the technical studies, we would be better if students are grouped according to their specialization in the technical departments and taught the language of that specialization".*

These students think that this will help them study in the technical departments and save their time. A student made this remark "*in the first academic year, we spend a lot of time finding the meanings of new words, a matter which consumes our time and effort. I think the FY should familiarize us with such words, so when we move to the technical department when we are ready and familiar with such words".*

The need for streaming students while in FYP and providing them with technical English was also raised by the technical teachers. An IT teacher said "*try to introduce some vocational areas in the FY, at the end of last semester for example you can introduce some technical and vocational English, English for Business and IT covering some ideas of vocational areas, at least when the students come to the vocational area they can understand some thing...". Another IT teacher said "at the advanced level at least every one should know where he is going to: business, or IT or Engineering and starts to take*

some courses of technical English about what he is going to take". An Engineering teacher explained, "when students come to Engineering, whether they study electrical or electronic or mechanical, certain important terminology should be clear to them. They come to Engineering but they study a lot of terminology, for example, what is voltage, what is character, what is frequency, what is electrical energy?. The foundation should introduce these words. These words should be clear to the students in the foundation itself so when they come to Engineering they know about what is this and what is that..."

Another area of suggestion was made in order to improve the methodology of teaching and students' exposure to English. There was an agreement among the interviewees from the different specialisations, including the FYP, that students need more opportunities to practice English and use it communicatively inside and outside the language classroom. An FYP teacher asserted that *"we have to make changes inside the colleges themselves to make (students) interested...to provide a suitable educational environment, for example, whether it is technical or business they need practice..."*. An Engineering teacher said, *"unless students practice outside that means communicating with the teachers in English, communicating among themselves in English, communicating with other technicians, with other administrative staff as far as possible, that can improve their English"*. The post FYP students saw that there were some areas, which need more focus or further improvement in the FYP. A post-FYP student said, *"we need more chances for practicing English in the foundation"*. A post-FYP student said, *"we need more assignments, because assignments encourage us to work independently. We did only 1 assignment in the FYP, it was simple and not challenging"*. In order to provide them with more exposure to English one student suggested having a project, *" One important thing is missing in the foundation programme, that is a project where the student collects information and presents it in front of the class so a discussion with the class is performed with that student about his/her topic. Friends of mine who studied in the SQU, where this type of learning is applied, benefited a lot and improved their English in a shorter time compared to us"*. *"This method makes us obtain new information, new words and new skills"*. FYP students said, *"we need to improve our vocabulary"* by giving us compulsory activities, for example watching video films. *Now watching films in optional therefore we miss them. To watch it, it has to be compulsory"*. They also said, *"the self-learning should be under the guidance of the teacher. We are not always able to decide, which books to read which one is suitable for us, the same with the audios, and videos"*.

The students' suggestions provided in this section show that the FYP students have certain interests, motivations and preference, which need to be studied intensively and taken in consideration in any future improvement of the course.

The suggestions discussed above can be summarised into five areas, as shown in Table 30 below. These five suggestions will all be considered when discussing the outcomes of the study and providing recommendations for the improvement of the FYP in Chapter 6:

Table 30: Suggestions made by the interviewees for the improvement of the FYP.
(the figures show the number of participants who made the suggestion)

Suggestions	No. of times mentioned
The FYP goals should be identified clearly for teachers and students.	25
A syllabus for the FYP should be designed.	5
The students should be streamed before the end of the FYP in order to be oriented for the technical specialisation they would like to join.	20
The students should be provided with more opportunities to practice English either inside or outside the classroom.	30
The FYP students should be introduced to technical English, especially vocabulary.	50

To sum up this section:

- The interviewees suggested five areas, which needed to be revised in the FYP. This study will use such suggestions alongside the other findings of the study to make recommendations for the improvement of the programme in chapter 6.

4. 3. 9. Summary of the Findings of the Interviews Analysis

Very different views about the purpose of the FYP and its underpinning principles were held by the interviewees. The interviewees, especially the technical teachers and students (FYP graduates), were unhappy about the language competency of the FYP graduates. Common areas of weakness were highlighted and presented in Table 29 (p 172 above). The interviewees' suggestions for the improvement of the FYP were discussed and summarised in Table 30 (p 176). These findings, alongside the findings of the other research tools will be used to discuss the improvement of the FYP course in chapter 6. As to the use of interviews for finding out about learners' language needs, this analysis shows that interviewees are unable to provide specific detail about the language use and activities that

take place in the academic context. The conclusion is that interviews can only provide an outline about language need. So, when specific details about learners' needs are required, there is a need to triangulate interviews with other tools, maybe questionnaires and text analysis. Interviews are useful tools to provide detailed information about the deep realities (Holliday, 1994) because they revealed the interviewees' beliefs, perceptions, understanding and critical views on present practice. They are also good tools for follow up questions in which the interviewer tries to elicit explanations. In addition, interviews are suitable tools to collect participants' suggestions and recommendations for the improvement of the present practice.

4.4. Conclusion

This chapter analysed the data collected by means of two types of research instrument: questionnaire and interviews. The findings of this chapter are summarized as follows:

1. Very different views about the purpose of the FYP were held by the participants. The study concluded that the ultimate purpose should be to teach students English in order to make them able to cope with the language demands of the technical course.
2. The FYP teachers held very different views about the FYP's underpinning principles. This diversity contributed to their uncertainty about the programme's purpose.
3. The interviewees pointed out that there were some generic/key/core uses among the three technical specialisations: IT, Business and Engineering. These generic uses could be said to cluster in three main areas, the classroom activities, the assessment activities and study skills.
4. The questionnaire analysis revealed that participants think that there are 26 generic language uses and some language uses specific to each of the three technical specialisations.
5. The interviewees, especially the technical teachers and students (FYP graduates), were dissatisfied with the language competency of the FYP graduates. Common areas of weakness among the FYP graduates, as explained by the interviewees, include: grammar, lack of vocabulary, pronunciation, spelling, handwriting and rephrasing.
6. There was a lack of sufficient links between the FYP and the technical studies in terms of learners' academic needs.

7. The interviewees made five recommendations for the improvement of the FYP including: identification of goals and objectives, syllabus design, streaming of students while in FYP, introducing the FYP students to the technical studies.
8. The students' suggestions for the improvement of the FYP, particularly in terms of the language learning activities they prefer and their involvement in the classroom, indicate that the FYP students have their own preferences, interests and motivations which should be addressed in detail.
9. There is a need to consider from the out set the implementation needs of the teachers, students and administrators in the Colleges of Technology.

These findings, alongside those of genre analysis and classroom observation analysis, which will be introduced in chapter 5, will be used to discuss the improvement of the FYP course in chapter 6.

Chapter 5: ANALYSIS OF CLASSROOM OBSERVATION AND GENRE

5.1. Introduction

In chapter 3 a rationale was provided for the complementary use of corpus analysis and classroom observation. In this chapter, the analysis of the data obtained by these two research instruments are presented. This aims at answering the following research questions:

1. What are the language needs of the students in Technical Departments: IT, Business and Engineering?
2. To what extent do the language needs differ- if they differ at all- among the different technical studies i.e. Engineering, Information Technology and Business?
3. What are the common language generic skills and knowledge among the technical subjects?
4. To what extent do the skills and sub-skills developed in the FYP, match those needed in the Technical departments?

The results of this chapter, alongside those of chapter 4, will be used to make recommendations for the improvement of FYP, which is discussed further in chapter 6. The questionnaires and interviews analysed in chapter 4 found the following results about the students' language needs:

1. There were some generic/key/core uses among the three technical specialisations: IT, Business and Engineering which cluster in three main areas; the classroom activities, the assessment activities and study skills.
2. Twenty six generic language uses and some language uses specific to each of the three technical specialisations were identified.

It was pointed out in chapter 4 that both the questionnaires and interviews provide the information the participants wanted. Therefore, their outcomes are rather subjective. The classroom observation and corpus analysis can help me to compare and contrast what I see and observe with the information that was provided by the subjects. This triangulation, would help to overcome the subjectivity of participants that the previous tools may

encounter. The information gathered by classroom observation and corpus analysis therefore is more objective in terms of the participants' influence.

In what follows, the analysis of the classroom observations is presented in 5. 2. The methodology of analysis is discussed in 5. 2. 1. The contexts of technical subject teaching are provided in 5. 2. 2. The teaching/learning material is analysed in 5. 2. 3. The classroom behaviour is discussed in 5. 2. 4. The linguistic features, syntax and lexis of the technical classroom are analysed in 5. 2. 5. The non-verbal behaviour and the learning skills that take place in the technical classroom are examined in 5. 2. 6. The interdepartmental similarities and differences of the technical classroom are set forth in 5. 2. 7. A summary of the findings of the classroom observation is provided in 5. 2. 8. The genre-based analysis of the technical corpus is shown in 5. 3. First a rationale for the selection of the corpus is given in 5. 3. 1. Then, the genre contexts and participants are reviewed in 5. 3. 2. The communicative purposes and layout of the genre are analysed in 5. 3. 3. The linguistic features, lexis and syntax of the genre are studied in 5. 3. 4. A summary of the findings of genre analysis and feedback from the FYP is presented in 5. 3. 5. A conclusion providing the outcome of both chapter 4 and 5 is supplied in 5. 4.

5. 2. Analysis of Classroom Observation

The ultimate objective of this classroom observation is to help in trying to understand the most typical form of English language use in the technical classes- IT, Business and Engineering. It was explained in the methodology chapter (in 3. 3. 3. p 133 above) that the classroom observation tries to answer the following questions:

- What was/were the teaching/learning material(s) that were used in the classroom?
- What type of classroom interaction existed?
- How different/similar was this particular classroom, whether IT, Business or Engineering, to other classrooms in terms of language uses, teaching material, classroom interaction etc?
- To what degree did the observed classroom practice agree/disagree with students' and teachers' responses in the questionnaire, in terms of language uses?

Classroom observation also provided firsthand information about the language use in the subject classrooms. This information helped me, as a researcher, to compare and contrast

what I saw and heard in the classroom with the information provided by the participants- academic teachers/students- through the other approaches of data collection, namely questionnaire and interview. As I explained in chapter 3, the disadvantage of the two previous methodologies- questionnaire and interview- is that the participants may provide only the information they like to (Wallace, 1998). Observation, however, is a procedure which helps to overcome that problem. (For further discussion on the rationale for using classroom observation in this study (see 2. 7. 3. 3. p 93 and 3. 3. 3. p 133).

5. 2. 1. Method of analysis

The methods of data recording and analysis are determined to a large extent by the purpose of the study (Poulsen and others, 1995). It was important for me to use a method which allowed some flexibility and, at the same time, provided me with rich and appropriate information. So, I used two methods of recording, namely, note-taking and audio-taping. *“Notes, or field notes as they are often referred to in qualitative research, are descriptions and accounts of events in the research context which are written in a relatively factual and objective style. They generally include reports of non-verbal information, physical settings, group structures and records of conversation and interactions between participants”* (Burns, 1999 p 87).

In note-taking I used pre-prepared observation sheets (a copy is provided in appendix 3). During the observation I used those sheets to write down notes about the physical layout of the teaching context, the teacher/students interaction, the non-verbal language use, for example, writing on the blackboard and some verbal behaviour of the teachers and students. An example of the notes I took during an observation session is provided in Table 31 below:

Table 31: An example of the notes I took during a classroom observation.

College: Muscat	Ibra
Programme: Engineering	ITBusiness
Module: Science for Engineering (Engineering Science) Mechanical Lab	
Date: 20.11. 02	
Time: 10:30	
Activity 1: main topic: explaining how the experiment can be done.	
T. introduces the topic to the Ss (experimental method)	
T. points at some diagrams, tables in the textbook.	
T. introduces some equipment to the students, naming them one by one.	
T. divides the students into 4 groups, each group works with an experiment.	
Ss. write in their note books	
Ss. use calculators to calculate the values of the weight	
Ss. fill in a table in their textbooks with the results.	
T. draws a diagram on a piece of paper using a ruler explaining how the results can be recorded.	
S. asks the teacher a question to check her understanding of what the teacher said.	
Ss. involve in a group discussion, in order to prepare to do the experiment	

Audio-taping, on the other hand, is a valuable *“technique for capturing in detail naturalistic interacts and verbatim utterances”* (Burns, 1999 p 94). My aim in using audio-recording was to capture the verbal behaviour of the teachers and students for further investigation. Tape recording, as well, allowed me to concentrate on non-verbal behaviour during an observation and note it down. The exact utterances of the teacher and the students in the example (activity 1- above) were tape recorded.

To obtain the greatest benefit from the audio records, I transcribed them (a sample of the transcript is provided in Table 32 below). Then, I analysed the transcribed lectures and notes according to the questions that were set in 3. 3. 3. which focus on:

1. The teaching context,
2. The teaching/learning material,
3. The teacher and students’ non-verbal behaviour
4. The linguistic features of classroom speech
5. The differences and similarities of the three academic contexts.

Table 32: A sample of the transcript of the classroom talk (an IT classroom).

What was the working directory? [cmb] cmb is the working directory, so in cmb we want to practice cmb now... right? .. ok.. lets make a directory called for example, user... lets make a directory called user. How will we do that? You do it now.... From ten yah.. so what is the command? Any boy can tell me what will be the command? [mk dir] mk dir, that is the command, then we have to write... ah...[the last name] the last name, which is? [slash...] which is, here, mk dir, and then ? [slash space] we are in tempt, so slash temp slash user.... Lets do it... lets do it...

(T to S) Where is the space? Between mk dir and the slash you have to have space...

(T to S) how about user name?

How about you girls?

The WordSmith program was used for analysing the transcribed lectures. This analysis aims at understanding the linguistic features of the classroom language- the tenses, voices, most frequent words and so on. This is similar to the linguistic analysis of the technical genres demonstrated in 5. 3. 4. (p 220 below). The transcription of the classroom talk is provided in appendix 8.

5. 2. 2. The contexts

Technical teaching takes place in three different contexts within the technical colleges: the ordinary classroom, the computer labs and the mechanical labs or workshops. Each of these three contexts has its own pedagogical features, as I observed.

The ordinary classrooms are usually places of theoretical input, where teaching is more like lecturing. This is true for both Engineering and Business studies. Students sit down in rows and columns. The teacher stands up in front of the classroom. The blackboard is the main teaching aid used by the teacher, on which he/she writes down examples and definitions, draws illustration, tables, diagrams etc., while students listen to the teacher lecturing, take down notes, etc. In those classes which I observed, English was the main medium of speech. The students' native language was used occasionally, but English remained dominant.

The engineering laboratories are workshops where students perform experiments and practise working with tools, equipment, and systems. These labs are different from the classical classroom in that students spend most of their time standing up or walking around the lab working with their hands, instead of sitting down listening to the teacher lecturing in the ordinary classroom. The students also work collaboratively in pairs, or groups.

Although the subject teacher is present, the amount of speech he/she produces is less than in the ordinary classroom; because a great deal of the time is committed to practical work. The lab technician is present beside the teacher and the students during these classes. The technician's role is to help the students as they are performing the experiment by making the items they need available to them. The lab technician is also the one who identifies and solves the problems that may occur with the experiment equipment during the experiment, as I noticed in one electrical experiment. Although English was the main medium of instruction during the lab classes I observed, Arabic occasionally intervened, especially when the students spoke among themselves.

The computer laboratories combine the features of the classical classroom and the workshops. These are usually used for theoretical input and practical performance at the same time. The students each sit at a computer set. The teacher's usual position is in front of the class. In a programming class the teacher first spoke about how to perform certain computer programming. It was more like lecturing. The teacher also used the blackboard for writing examples, drawing illustrations, tables etc, a scene that I observed in Business and Engineering classrooms. After finishing this theoretical input, the teacher asked the students to perform on the computer a task provided in their textbooks. So, the session here shifted from theoretical input into practising. The students' role shifted from recipients to performers. The teacher's role, as well, shifted from lecturing to guiding students and helping them to perform that task, as he/she walked around the class, checking that each student was doing well. In a similar way to the ordinary classrooms and Engineering labs, English was the main medium of instruction during the classrooms I observed. The mother tongue was used occasionally, especially among the learners.

This variation in the teaching context requires the FYP to prepare its students in terms of the language skills, learning skills and genre skills that are required in each context. Of course, not all situations require the same type and amount of language knowledge and skills. For instance, the Engineering labs required the skills of recording results. The IT labs and Engineering labs required students to have the skills of following the teachers' instructions. All in all, context variation demands various language skills and abilities.

5. 2. 3. Teaching/Learning Material

The student textbook was the most used teaching/learning material in the IT, Business and Engineering classes. Besides the textbooks, some teachers provide their students with handouts. All the teaching/learning material is written in English. Students also used their personal notebooks to write down notes. A detailed description based on a genre analysis of such teaching material is provided in the Document Analysis section. The blackboard is used in the theoretical classes. In the computer classes, the computer is another learning aid. In the Engineering lab, equipment, tools and machines are used as teaching/learning aids.

5. 2. 4. Classroom Behaviour

I mean by classroom behaviour the teachers and students' verbal and non-verbal activities throughout the delivery of a lesson. That is, what the teacher says and does in order to deliver his/her lesson, and what the students say and do while they are watching and listening to the teacher teaching them.

Classroom behaviour is usually a joint activity of the teacher and the students. Such behaviour is categorized into 1- action: that is teacher's delivery of his/her teaching plan, 2- reaction: the learners' response to the teacher's action, and 3- interaction: the teacher and students acting upon each other (Malaham-Thomas, 1987). Teacher's talk occupies most of the classroom time in the traditional classroom. It is, in addition, classified in many different ways. Malaham-Thomas (1987, p 21) provides examples of such categories which include lecturing- *"giving facts or opinions about content or procedures; expressing own ideas, giving own explanation"*, questioning, instructing, eliciting, responding. Students' talk is, also, classified in different ways, for example, responding, reading orally to the class, initiating. Non-verbal behaviour refers to activities such as taking down notes, drawing, filling in tables, writing on the blackboard, using the computer etc.

One of the major findings of the classroom observation was that English really was the official medium of teaching in the three technical studies. This does not mean that Arabic (the mother tongue) was not used on certain occasion, especially among the students themselves. However, English was the official and dominant medium of the classroom talk and teaching material. This, in fact, supports the students and teachers' remarks in the interviews that English is the medium of instruction in the technical classrooms.

In the observed technical classes, the teachers' and students' verbal and non-verbal behaviour were influenced by the teaching context in which they took place. This means each teaching context has its peculiar classroom behaviour. For instance, the Engineering workshops provide chances for pair and group work. Nevertheless, there are some similarities between the behaviour that takes place in these different contexts, especially in the terms of the communicative functions and learning skills. The communicative functions of classroom talk will be discussed in the following section which is concerned with the linguistic analysis of classroom talk.

The students' verbal behaviour in these three technical contexts was:

- answering the teacher's questions,
- asking the teacher questions
- and reading from their textbooks and/or handouts.

In the Engineering workshop class, in addition to answering the teacher's questions and asking him questions, students are also involved in pair and sometimes group discussions (Arabic sometimes used) in order to perform some experimental tasks.

To sum up the findings of this section:

- English was the official medium of teaching in the three technical studies.
- Teacher's talk occupied most of the classroom time.
- The teachers' and students' verbal and non-verbal behaviour were influenced by the teaching context in which they took place.

5. 2. 5. The Linguistic Features of Classroom Talk

This analysis is concerned with the communicative functions and the lexico-semantic characteristics of technical classroom talk. A genre-based approach is used for this purpose. The analytical framework is adapted from Swales' (1990) definition of genre that was discussed in 2. 8. 2. p 96 above. An examination of the contexts in which these genres took place, the participants, the types of classroom discourse and cultural conventions of these participants was provided in 5. 2. 2. This section, therefore, focuses on the linguistic

features of the classroom talk, namely, the communicative functions and the lexicogrammatical features. This section also indicates the findings for ELT in the FYP.

The transcribed classroom talks, comprising a total of 67,732 words (22,702 IT; 23,110 Business and 21,920 Engineering), were analysed using WordSmith software to find out the type and frequency of words in each department. The analysis focused on concordances to find out how some selected words were used.

The communicative functions mean, "*what people do with language*" (Ek and Trim, 1991 p 15) or "*the purpose for which an utterance or unit of language is used*" (Richard and Schmidt, 1992 p 214). Ek and Trim (1991) list of the language functions and Thompson's (1994) findings of the communicative functions of academic lectures are used in this analysis process as guidance in classifying the communicative functions of the analysed classroom talks. These functions are identified by the lexical/semantic features signalling them, the structure of the texts. For example, sequencing is signalled by lexical items such as "first", "then" (Thompson, 1994). My understanding of the classes that I observed also helped me to discover the communicative functions of the classroom talk. Being an observer, I was able, for example, to identify the situation in which teachers reached conclusions and when they moved from one activity to another like, writing on the blackboard or speaking one-to-one to students.

The communicative functions of the student and teachers' talk in the technical classrooms are presented in Table 33 below (the text extracts are borrowed from the transcribed lectures; the numbers between brackets show the frequency of occurrence of each communication type in the classroom discourse. In some cases the categorisation is not absolute as functions are overlapping).

Table 33: The Communicative functions of the technical classroom talks.

The communicative function	Examples
Naming (20)	when we talk about work forcing staff we talk about two kinds of staff. We talk about skilled and unskilled”.
Instructing (24)	“take this reading. Fill in the table. Start with this one, then this one and include this one”
Describing (13)	“this department is a very important department”.
Responding to students (19)	“Now, can you give an alternative word which can give you an easier meaning or can you give it in an easier form? [needs] yes, needs, that’s it, needs”.
Questioning and eliciting (31)	“What do we mean by working directory?”
Concluding (10)	“So, organisation and coordination is very important. We have a process. It starts from finding what job we need, what vacancies we have until we sack people. So, this is a collection of the ideas we take with us. Clear?”.
Sequencing (15)	“we draw our plans. This is the first step, in the sequence, if you want, or in the process. The second step is deciding the number of employee we need. Third, is the selection of the employees...”
Illustrating, explaining and demonstrating (28)	The teacher slid the duster over the teacher table, and then said “you see this. Why has it stopped? It stopped here because the friction of this [the surface of the table] has a force, so it stopped it”.
Reasoning (11)	“... this department is a very important department, because they have the capital and on that capital they can get to other departments...”.
Defining (9)	“MS is the ratio of the limiting and static friction and force friction to the normal reaction”.

As to the lexical analysis of the classroom talk, a discussion on the different classification of the ESP lexicon and the problems/difficulties of assigning each word to a certain category was provided in 2. 8. 5. 1. p 104 above. Based on such theoretical orientation the vocabulary found in the technical teachers-students' talk can be classified according to the following categories:

1. Technical abbreviations (Kennedy and Bolitho (1984) e.g. MS (Engineering), D (IT)
2. High-frequency words which consists of two subcategory function words, like adverbial particles, auxiliary verbs, prepositions etc. and content words, such as nouns, verbs, and adjectives (Nation, 2001).

a) Function (grammar) words: identifying all the function words is beyond the scope of this study because, there are as many functional words as specialised books contain. Table 34 below contains some functional words identified in the classroom talk.

Table 34: Grammatical features of technical classroom talk

Grammatical feature	Examples
Prepositions	In, to, at, for, with
Quantifiers	all, any, no
Ordinal numbers.	first, second
Pronouns	it, you, I, me, her, we
conjunctions	and, or, but, also
Articles e.g.	A, the, Ø
Auxiliary Verbs:	<ul style="list-style-type: none"> • to be • to do • to have
Modal auxiliary	Can, will, would
Wh. Words	why, what
adverbs of degree	so, very, most

b) Content words e.g. work, start, time etc;

3. Technical words (Nation, 2001) also high technical vocabulary (Hullen, 1981) and hard terminology (Fanning, 1993). These words are of different levels of technicality. There are words that never appear or appear very rarely outside their particular fields (Nation, 2001). In the analysed transcript, an example of such a level is the word "Java" in IT. There are also words which are more common in one field than others (Nation, 2001). These words have technical meanings in their specialisation but can also be used in other specialisations or even general English to give the same meaning, for example, equation, acceleration (Engineering), recruitment, manpower (Business).
4. There are also subtechnical words (Nation, 2001) which are used in more than one discipline but give different meanings in the different specialisations for example, "tool" in IT (a number of software programmes) and Engineering (instruments which are held by hand and used to do different jobs).

The frequency list showed that among the most frequent words that occur are grammar words, general lexical words and technical words. Table 35 shows the frequency of the ten most common words in each specialization:

Table 35: The 10 most frequent words in technical classroom talk

No	IT		Business		Engineering	
	word	Freq	word	freq	word	Freq
1	The	250	And	200	The	220
2	We	167	Service	176	A	95
3	directory	162	Provide	93	Of	93
4	You	134	To	90	momentum	75
5	To	130	department	89	is	67
6	Is	125	sales	76	to	59
7	User	103	customer	55	in	57
8	Have	90	Activities	52	and	44
9	That	81	For	49	change	35
10	And	80	staff	40	objective	35

The occurrence of technical words among the most common words suggests that the technical words form the core of the technical classroom vocabulary. Therefore, technical words should be paid particular attention to in the FYP. Students should be acquainted with the knowledge and skills, which enable them to cope with such high frequency words.

The sentence structures and tenses that were used in the classroom talk are shown in Table 36 below. The figures indicate the frequency with which these features occur in the material of the three specialisations together.

Table 36: The tenses features of technical classroom talk

The feature	Examples	Frequency
1. passive voice (future verb, present simple)	idate or the right labour will be selected. Now wh third department which is listed in this hand out cial reward. Promotion is rewarded. We have to p	32
2. present progressive	good reasons, why we are terminating people. g and how fast the stuff is moving. Momentum d yees who are working very hard in	25
3. present simple	figure 2.4 shows a simple automatic conrol solute bath. Because it has to start from the ro the more the people know the system in the	49
4. past progressive	t? Alex was the one who was logging in.... ok. Last time or last lecture I was talking about what	26
5. past simple	in a process, last time I told you that... yes... thompson single-handedly wrote the original so he created a new language thjat he called	17
6. future verb will	r if you want, their CV. They will send all these our organization. They will know the system. A l coordinate selection, It will coordinate promotion	29
7. present perfect (passive in second example)	ce department again we have discussed last time d. What the directory if has been changed... to t suppliers. And this we have done so far in the l	30
8. negatives	we do give money.... We don't consider mone the organization. Now, we do not do it just for er? [np] no of course we can't... because this is	35
9. questions	Now, normally, how do we bring in labour? We meaning. Now, why do we do it? Why do we te e keep documents, why do keep files? As we h	28

This variation in the structural features of classroom talk requires that the students should be provided with the knowledge and skills of English grammar to enable them to participate effectively. This is, definitely, the job of the FYP. This will be discussed later on in (5. 4) where the results of the questionnaire, interviews, genre analysis and classroom observation are brought together to point out their implication for the FYP. It should be acknowledged at this stage that the grammatical analysis set down in this section does not provide a comprehensive understanding of the grammatical features of the technical spoken discourse. This analysis offers examples rather than claiming to be inclusive. It focuses

only on the verbal group, which is in many cases the least complex grammatical element of the sentences quoted. The focus on this at the expense of the nominal group will not lead to a balanced teaching syllabus, which this study does not proclaim. The case is the same for the syntactic analysis embarked on in 5. 3. 4. 2. p 224 below. It exemplifies the grammatical features found in the technical genre.

To sum up the findings of this section:

- The vocabulary used in the technical classrooms can be divided into five groups
 - a) Technical abbreviations
 - b) Content words e.g. work, start, time etc;
 - c) Technical words
 - d) Function (grammar) words
 - e) subtechnical words

- Among the most frequent words in the classroom talk are technical words, which means that they play an important role in the technical classroom.

- Different grammatical features were used in the technical classroom which requires students to be acquainted with the knowledge and skills to comprehend them.

5. 2. 6. Non-verbal Behaviour and Learning Skills

Both the teachers and the students are involved in non-verbal behaviour. The teacher writes examples, explanations and answers on the blackboard. He also checks students' work in the computer. The students copy what the teacher writes on the board. They also take notes while the teacher is speaking. IT students, in addition, perform computer activities using the examples provided in their textbooks, the instructions the teacher writes on the board and the notes they write in their notebooks. This suggests that the FYP students need to be able to take down notes while listening to the teachers lecturing and copy down the teachers' written notes.

5. 2. 7. Interdepartmental Similarities and Differences

There are some similarities and differences between the various technical specialisations in terms of teaching material, teaching style and classroom interaction, as revealed by classroom observation.

The main distinguishing feature of the technical classes is between the theoretical and the practical classes. Business are all theoretical, IT and Engineering are a combination of theoretical and practical. The theoretical classes take place in the classical classrooms while the practical classes take place in the labs. Theoretical classes whether IT, Engineering or Business, are dominated by teacher talk. Lecturing is the main teaching style. The practical classes- IT and Engineering- involve less teacher talk and more hands work by the students. Teacher talk also shifts from lecturing to guiding students and helping them to perform the required activities. The Engineering practical class allows students to work in groups. In the theoretical classes, students work individually. Textbooks and handouts are used in all the three specialisations and both theoretical and practical classes. The blackboard is used in the three specialisations, but it is not used in the Engineering labs. Of course, as the IT teaching takes place in computer labs, computers are used during the class. In the Engineering labs, engineering equipment, e.g. transmitters, engines, etc., are the main teaching/learning tools.

Lexis is another field of similarities and differences. All three specialisations use the technical vocabulary specific to their field. Besides that, general types of vocabulary are also used. Such general words can be grouped into lexical words and grammar words.

5. 2. 8. Summary of the Findings of Classroom Observation Analysis

The main purpose of the classroom observation is to try to understand the most commonly occurring forms of language use in the three technical specialisations (IT, Business and Engineering). The observations show that English is the official medium of instruction and material in the three technical departments. Arabic, nonetheless, intervenes occasionally, especially among students themselves. There are some similarities and differences in the teaching styles, classroom interaction and teaching learning material in these three specialisations. The teaching takes place in three contexts: classical classroom, computer lab and Engineering lab. Teachers' verbal behaviour includes naming, explaining, demonstrating, defining, instructing, calculating, reading, answering students' questions,

eliciting and questioning. The non-verbal behaviour includes writing and drawing on the blackboard, checking students' work. The students' verbal behaviour includes answering the teacher's questions, asking the teacher questions, reading- silently and aloud- from textbooks/handouts and discussing among themselves how to conduct an experiment.

The findings of the Classroom Observation analysis alongside the findings of the Genre analysis in the next section and the Questionnaire and Interviews that were conducted in Chapter 4: are discussed in 5. 4 below to find out the initial implications of such findings on the reality of the current FYP.

5. 3. Genre-Based Analysis of the Technical Corpus

It was stated in the methodology chapter 3 that a document analysis is one of the four methods of collecting data for this needs analysis study. A genre-based approach is used in this section to analyse documents collected from the technical departments (IT, Business and Engineering) in the colleges of technology in Oman.

A theoretical rationale for the use of corpus analysis was provided in chapter 2. The corpus analysis aims at enhancing our understanding of what is appropriate in the English language teaching/learning in the FYP by making explicit to learners the patterns of language choices found in the texts used in the Technical Departments. Corpus analysis is different from the questionnaire and interviews that were analysed in chapter 4 in that it provides first-hand information about the language uses in the technical studies. The information gathered by means of questionnaires and interviews was subjective in the terms that were provided by the participants. The corpus analysis reveals information about the language uses as they are found in the different types of teaching/learning material. Similar information was provided by classroom observation yet the corpus analysis is wider in scope and more thorough. Both classroom observation and corpus analysis focus on what goes on rather than what is said to go on, as in the questionnaire and interviews. Another difference is that classroom observation focuses on the spoken genre while corpus analysis is concerned with the written genre of the Technical Departments.

It was pointed out in the literature review (chapter 2) that the current study uses Swales' (1990) definition of shared knowledge of genre in analysing technical genres. Swales

(1990) followed by Johns (1997), points out that those who share knowledge of the same genre share some or all of:

- a shared name of genre,
- shared communicative purpose(s) of the shared genres or their subcategories,
- shared knowledge of the roles of readers and writers,
- shared knowledge of context, which means all the events that are going on around when people speak and write,
- shared knowledge of formal text features (conventions),
- shared knowledge of text content, such as the types of content and vocabulary in a text and organization of the text,
- shared knowledge of register (lexis and grammar),
- shared cultural values
- and shared awareness of intertextuality.

So, those elements are used in this section as a framework for technical genre analysis. The pedagogical implementation of such an analysis is explained at the end of this analysis.

5.3.1. A Rationale for the Selection of the Corpus

Although this analysis tries to cover a wide range of the technical genres in the three technical specialisations in the colleges of technology, it remains for practical reasons not exhaustive or exclusive. That is because there is a huge amount of documents that can be found in each of those three domains of technical studies. For example, there are 20 modules in the IT programme, 34 in the Engineering and 37 in the Business. Each module has a textbook and a number of handouts, assignment papers, quizzes and exam papers. I believe that a single researcher cannot fully analyse all these documents. Therefore, samples of the technical corpus were chosen to represent the three technical specialisations: IT, Business and Engineering. Those samples also exemplified the different types of material e.g. textbooks, assignments, exam papers, quizzes etc. that were used in each specialisation. Being a staff member of Ibra College of Technology, I am familiar with the different types of material used in the technical pedagogy. This helped me to decide the corpus for this analysis. Nonetheless, I did not rely entirely on my intuitions. I asked the subject teachers who may be more experienced than me in their own fields to participate in choosing the documents. Their role was valuable in providing me with different types of material and explaining to me the function of each type in the technical studies. This

material collection happened during the pilot study and the data collection period (see 3. 6. p 136 and 3. 7. p 138 above). A full list of the analysed corpus is provided in appendix 5.

The naming and classification of this corpus into groups of genre is context-based rather than research-driven. In other words, the names given to each group of texts are, according to the discourse participants, not as found in the research of genre analysis. So it is from context to text approach, rather than from text to context. Adolphes (2002, p 47) points out *"there seem to be two distinctly different views on how to approach the analysis of texts in relation to context. One starts with an examination of context, folk-terminology for genres, perceived distance between the speakers and social factors of the participants... the other view is more text-based, and as Sinclair (1992) states, 'is to expect the text to supply everything necessary for its own interpretation; what we need is not an external knowledge base but a better understanding of text structure"*. I found that in the technical departments names were assigned to each type of material, e.g. assignments, quiz, final exams, mid-term exams etc. Naming genres, actually, is a common practice whether in academic contexts or in general life. Sharing names of genres *"provides a kind of shorthand for identifying texts and the situations in which they occur... It is convenient and efficient for people to share names of texts, for this practice enables them to begin their reading and writing of a text with considerable confidence and to comprehend effectively the discourses that are important to them"* (Johns, 1997, p 23). Based on such a discussion, the corpus that I gathered from the technical departments is categorised into 6 groups, as follows:

1. Textbooks:

These are either home-made or commercial material. A textbook is assigned for each subject in each of the three technical departments. Each student has his/her own copy. I collected nine textbooks from the three technical departments. Three textbooks, one from each department, were used in this analysis. The chosen textbooks are assumed to be representative of the whole collection of textbooks used in each specialisation. A further discussion on the rationale of selecting these particular textbooks is provided in (5. 3. 3. 1. p 203 below).

2. Assignments:

An assignment is an activity that aims at assessing learners' understanding and performance of a specific input that has been taught in any of the technical subjects. They

are done either by individual students or by groups. The technical teachers provided me with six different assignments from the three different specialisations. An assignment can be recognised by the notation (assignment) which is written at the top part of its first page. Assignments are marked according to an “Assignment Grading Scheme”, a sample of which is extracted in Figure 17 below from the Department of Business, Ibra College. A copy of students’ assignments is provided in Appendix 10.

Oman BTEC Diploma Ibra Technical Industrial College, Department of Business Studies Assignment Grading Scheme		
No of section	Section 1	Section 2
Unit code number		
1. Planning & Organisation (5 marks)		
-clarity of objectives (1 Mark)	()	()
-Logical sequence of approach (1 mark)	()	()
-steps & procedure for assignment accomplishment (2 marks)	()	()
-organisation & report layout (1 mark)	()	()
Total Marks	[]	[]
2. Data Collection & Handling (5 marks)		
-identify sources of data (1 mark)	()	()
-collecting relevant data (2 mark)	()	()
-analysing & using data (2 mark)	()	()
Total Marks	[]	[]
3. Task accomplishment (15 marks)		
Total Marks	[]	[]
4. Presentation (5 marks)		
-using appropriate report format (2 marks)	()	()
-use graphs, tables...etc (2 marks)	()	()
-tidiness & clarity (1 mark)	()	()
Total Marks	[]	[]
Overall Total for each Section (out of 30%)	[]	[]
Tutor 1 signature.....	date:--/--/---	
Tutor 1 signature.....	date:--/--/---	
Student signature.....	date:--/--/---	
Internal verifier signature.....	date:--/--/---	

Figure 17: an example of assignment grading scheme

3. Quizzes:

Quizzes are assessed activities occasionally given to students to assess/evaluate their understanding and performance of a specific input that has been taught in any of the technical subjects. A quiz is usually given a maximum of 5 marks. Like assignments, a quiz text can be recognised by the notation (quiz) which is written at the top of the page. Figure 18 below shows an example of a quiz extracted from the Ibra College of Technology.

<p>Ministry of Manpower Ibra College of Technology <u>Department of Business Studies</u></p> <p>BUSG 320 Introduction to Accounting</p> <p>Quiz # 1 Marks: 05 Time: 15 Minutes.</p> <p>Name:..... Group:.....</p> <hr/> <p>1. Financial transaction means, recording business transactions in money terms. (T/F) ½ mark</p> <p>2. Accounting is known as----- of business. ½ mark</p> <p>3. Owners use accounting information to know----- . 1 mark</p> <p>4. accounting involves:</p> <p>a.</p> <p>b.</p> <p>c.</p> <p>5. objectives of accounting are:</p> <p>a.</p> <p>b.</p> <p>c.</p>
--

Figure 18: An example of a quiz paper.

4. Exam Papers:

Exam papers can be divided into three groups: the mid-term examination papers, the final examination papers and the resit examination papers. The mid-term examination takes place in the middle of the semester. The final examination takes place at the end of the semester. The resit is for those who fail the final exams. All examinations have a top sheet indicating out the type of exam e.g. (Final Semester Examination) and provides other information such as exam time, duration and marking grid. I was provided with 14 exam papers: 8 finals, 5 midterm and 1 resit. Examples of exam questions will be provided in Table 39 p 218.

5. Homework Papers:

A homework is an assessed activity given to students to do at their own pace within a specific period of time. Homework is specific to the Business Department, as I was not given any from either Engineering or IT. A homework paper can be recognised by the

notation (home work) which is written at the top of the page. I was provided with three homework papers. Figure 19 below is an example.

Ministry of manpower Ibra College of Technology Department of Business Studies BUSG 130: Introduction to Accounting Home Work # 1																							
Academic Year 2001-2002 Group: A1 (Year 1-Summer term) Student's Name.....		Maximum Marks: 05																					
<p>Q.1 Identify the accounting concepts applicable in the following cases:</p> <p>a. X Co. was making profits till last year. But in the present year, it suffered loss due to problems with workers. Can the accountant record problems of workers in accounts of the business? Support your answer with accounting concept.</p> <p>b. Mr. Ahmed AlHarthi is the owner of a business. He has invested RO 5000 in his business. He has withdrawn RO 100 from business for personal use. The accountant shows it as drawings. Which accounting concept has he referred to?</p> <p>c. Mr Yaqoob Mubarak is working as an accountant in a company. Every transaction in his records has two aspects. Under which accounting concepts he is justified?</p> <p>Fixed assets should be recorded at their original cost and depreciation should be spread over different years--- according to which accounting concept?</p> <p>Q.2 Identify debtor & creditor in the following cases:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Transaction</th> <th style="width: 20%;">Debtor</th> <th style="width: 20%;">Creditor</th> </tr> </thead> <tbody> <tr> <td>Goods worth RO 500 on credit to Mr. A</td> <td></td> <td></td> </tr> <tr> <td>Purchased goods worth RO 200 on credit from Mr B.</td> <td></td> <td></td> </tr> <tr> <td>Mr. X owes RO 200 to Mr Y</td> <td></td> <td></td> </tr> <tr> <td>ABC Co. sold goods worth RO 300 on credit to XYZ Co.</td> <td></td> <td></td> </tr> <tr> <td>Sold goods on cash worth RO 20 to Mr Z.</td> <td></td> <td></td> </tr> <tr> <td>Cash sales of RO 100</td> <td></td> <td></td> </tr> </tbody> </table>			Transaction	Debtor	Creditor	Goods worth RO 500 on credit to Mr. A			Purchased goods worth RO 200 on credit from Mr B.			Mr. X owes RO 200 to Mr Y			ABC Co. sold goods worth RO 300 on credit to XYZ Co.			Sold goods on cash worth RO 20 to Mr Z.			Cash sales of RO 100		
Transaction	Debtor	Creditor																					
Goods worth RO 500 on credit to Mr. A																							
Purchased goods worth RO 200 on credit from Mr B.																							
Mr. X owes RO 200 to Mr Y																							
ABC Co. sold goods worth RO 300 on credit to XYZ Co.																							
Sold goods on cash worth RO 20 to Mr Z.																							
Cash sales of RO 100																							

Figure 19: An example of a homework paper.

6. Workshop activities:

Workshop activities require students to perform workshop experiments and present evidence of the performed work. These activities are specific to Engineering. Workshop activities can be recognised by the notation (workshop activity) which is written at the top of the page. I collected three Workshop activity papers. Figure 20 below is an example.

IBRA COLLEGE OF TECHNOLOGY
ENGINEERING DEPARTMENT

WORKSHOP

ELECTRONIC LABORATORY
ACTIVITY 1: OPERATIONAL AND AMPLIFIER APPLICATION

You are required to construct and test a simple circuit to demonstrate some of the applications of the 741 operational applications.

Task:

1. investigate AC operational amplifier
2. non metric AC amplifier
3. AC amplifier operating through single power supply
4. an AC operating amplifier to amplify 100 MV single to give an output voltage of + or - to V for sequence range 300hz
5. an AC operating amplifier to amplify 100 MV single to give an output voltage + or - to V for a frequency range from 3000 to 10000 hz.

Presentation:

A complete word processed report containing:

- 1- pin connection background for the 741 operation amplifier
- 2- input and output wave form and phase relationship
- 3- the summary of the circuit
- 4- the physical circuits

Resources:

1. laboratory sheet
2. manufacturer catalogue
3. electronic workshop
4. college library

Assessment:

You will be assessed by:

1. observation
2. evaluation of the set up
3. evaluation of the report
4. your presentation

Figure 20: A sample of a workshop activity paper.

Naming genres in such a way is seen by some researchers as a good starting-point for understanding how genre knowledge is realized purposefully in academic contexts and in discussion of texts (Johns, 1997). In this analysis, all the materials which fall into these six groups were used for the linguistic analysis which is reported in 5. 3. 4. below. Regarding the analysis of the communicative purposes of such genres, representative samples of each group were used as follows:

- three textbooks, one from each department
- four assignments from the three departments
- seven exam papers from the three departments
- three quizzes, one from each department
- four homework papers (Business)
- three workshop activities (Engineering)

The selection of these numbers of texts from each type was determined by two factors. First, as was explained earlier in this section, it was not feasible for this study to cover all the texts used in the three technical departments. So, a selection of representative samples had to be made. Second, by looking at one text only, it might not be possible to judge whether the features identified are idiosyncrasies of that text or a reflection of the genre. Therefore, the features were examined across a number of texts. Different features were sometimes found in one text, sometimes in more than one. This is why the number of texts varies between the groups as shown above. Another point to bear in mind in selecting the text was that the texts chosen should be used by all the students in each specialisation, not just by a group of them. This helps in generalising the findings of the analysis of each specialisation's corpus.

5.3.2. Genre Contexts and Participants

The argument behind paying attention to context is that genres are designed to fulfil the requirement of specific contexts. For example, the requirement of delivering a presentation is different from writing a report. In addition, each genre type has its own communicative function(s). Therefore, understanding the characteristics of a given context that a genre is used in is useful for analytical and pedagogical purposes. First, it helps the analyst to explain why a certain genre has a particular communicative purpose. Second, it helps students to produce genres that suit that specific context. Johns (1997, p 28) argues that *"students' situated cognition will undoubtedly become more and more sophisticated as they repeatedly recognize contexts in which texts from a particular genre are required"*.

The groups of genres analysed in this study are drawn from different contexts and involve different participants within the technical colleges. The classroom, of course, is the main context in which most of these genres, especially textbooks, quizzes and exams, are used. Computer and Engineering labs are also places where some of these are used. A group of

such textbooks, quizzes and assignments requires the use of computers to perform certain computer activities. Some engineering activities take place in labs in order to construct, for example, electrical circuits. Assignments sometimes take place beyond the classroom and labs, as students are required to visit other facilities in the college like the library, or visit establishments outside the colleges. This variation in contexts and participants contributes to the specifications of the communicative functions of each of the technical genre types as will be seen in the following sections.

5. 3. 3. The Communicative Functions and Layouts of the Technical Genres

“Genres are communicative vehicles for the achievement of goals” (Swales, 1990, p 46). Communicative functions are *“what people do with language”* (Ek and Trim, 1991), or *“purpose for which an utterance or unit of language is used”* (Richards and Schmidt, 1992 p 214). In this analysis the communicative functions may be termed as “questioning”, “instructions”, “introduction”. These functions are recognised by both the linguistic features (Salahshoor, 1999) and textual formal features (Bhatia, 1993 b and John, 1997). This analysis believes that the communicative features occur not in a linear but in a cyclical sequence. So, a particular communicative function can occur more than once in a text. This theoretical background guides the analysis of the communicative function(s) of technical genre in the next sections. Further, the genres are analysed in two main groups: textbooks in one and assignments, exams, homework, quizzes in the another. Textbooks, as will be seen in the coming section, carry layout and communicative functions different from those carried by assignments, exam papers, quizzes etc. Therefore, dividing them into these two groups seems reasonable.

5. 3. 3. 1. The Communicative Purposes and Layout of the Textbooks

This analysis examines the communicative purposes of six chapters from three textbooks. The rationale for choosing these textbooks and the chapters within them is based on their nature and the functions of the chapters within each of them. Swales’ (1995) indicates that textbooks are of two types, those that teach practices and skills and those that teach a structure of knowledge. Some of the IT textbooks, namely, “Information Technology: vocational areas, semester 2”, belong to the first type. The Business textbooks e.g. “Employees Relationship and Personnel Practices” belong to the second type. It is, also, possible to identify a third type, which is a mixture or combination of the teaching of practice and skills and that of structure of knowledge. This third type of textbook is common in IT and Engineering, for example. “C Programming”. So, the three textbooks

that were chosen for this analysis represent those three categories: i) those that teach practices and skills, ii) those that teach a structure of knowledge and iii) those that combine the two previous categories.

Furthermore, two types of chapter within these textbooks can be identified: first, introductory chapters, like “Introducing Java 2”, “Introduction to Engineering Systems”, “Introduction to Marketing” and “Introducing C”: then, those chapters that follow them. I notice that the communicative purposes of these two types of chapters are different. The first type provides introductory information, which prepares the reader for the subsequent chapters. The second type deals in further detail with one area of the topic of the book. So, it was useful to combine the two types of chapters in the analysis. The six chapters analysed in this study are:

1. IT:

I) “Introducing Java 2”: an introductory chapter in (McGarth, 2001), a book that combines the teaching of skills with the teaching of the structure of knowledge e.g. the Swales’ (1991) type 3. This chapter is, by itself, a move within the textbook. Moreover, it consists of 13 sections, each representing a main move, and made up of further sub-moves- or steps in Swales’ (1991) approach. The section titles indicate the start of a new move within the chapter.

II) The second chapter to analyse in the same textbook is chapter 2 “Variables and Operators”. This follows the introductory chapter discussed in (I) above. It assumes that the students have been provided in chapter 1 with background information about the Java program, including know how to download and run it. So, this chapter teaches students how to store program data inside variables. It consists of 14 moves each divided further into sub-moves, which differ, in their number according to the requirements of the topic. The communicative purposes of the moves and sub-moves of these two chapters are summarised in Table 37 below.

2. Business:

I) “Introduction to Marketing” is chapter 1 in an in-house textbook entitled “Marketing”, a book that teaches the structure of the knowledge only. This chapter provides a background introduction for the three chapters, which follow it. A definition of Marketing and

discussions of the main concepts, e.g. customer, needs, consumer, which will constitute the principal content of the remaining chapters, is provided. This chapter consists of 5 main moves each consisting of further sub-moves.

II) “The Application of Marketing in some Selected Areas”, is chapter 4 in the same textbook “Marketing” that was mentioned in (I) above. This chapter compared to the two chapters preceding it- “marketing environment” and “marketing MIX”, deals with a specific concept of marketing that was not dealt with in either of those two chapters. So, it is independent communicatively from the previous two chapters. Yet, there is an obvious relationship between this chapter and the book’s introductory chapter- chapter 1. A definition of Marketing is provided in the introductory chapter. Also some concepts e.g. customer, needs, consumer, used in this chapter, are introduced in the introductory chapter. So, the introductory chapter provides a type of background knowledge for this chapter. This means that there is a communicative relationship between the introductory chapter and other chapters in the book.

The main communicative purpose of this chapter is to explain and provide information about four types of marketing, namely, consumer marketing, industrial marketing, service marketing and international marketing. This general communicative purpose is obtained via six moves which represent the six sections making up the chapter. Each move contains a number of sub-moves with a certain sub-communicative purpose. The communicative purposes of these two chapters are summarised in Table 37 below.

3. Engineering:

I) “Introduction to Engineering Systems” is Chapter 1 in an institution-made textbook entitled “Engineering Systems”. The main communicative purpose of this chapter is to introduce “Engineering Systems”. This chapter consists of nine main moves, each consisting of further sub-moves.

II) “Operation of Engineering Systems” is Chapter 2 in the same Engineering book pointed out in (I) above. This chapter consists of six main moves, each consisting of further sub-moves. The communicative functions of the moves and sub-moves of these two chapters are summarised in Table 37 below.

Table 37 below shows the twenty communicative functions and the number of times each function occurs. It also shows the tenses and the verbs that carry these communicative functions. These functions are carried out by three different tenses, present simple, past simple and present perfect. The future verb (will) is also used to express future events. Modality, passives, negatives and question form are used as well. A comparison of the most used/frequent tense/verb will be included at the end of this chapter. This will help in deciding what to give more focus to in the FYP, according to its frequency of use in the target situation (the technical studies).

Table 37 (A): the communicative functions of the moves in the 6 technical chapters analyzed in this study.

(Empty boxes mean the case is not applicable. The figures between brackets in items under “the communicative purposes” show the frequency number of that item).

The communicative function	The text			The tense
	IT	Business	Engineering	
Listing of objectives (4)*		<p>“the learning objectives are;</p> <p>The basic objectives of this chapter are to explain: consumer marketing, Industrial marketing, Service marketing, International marketing.</p> <p>“Marketing starts with human needs and wants. People need food, air, clothing and shelter to survive...”</p>	<p>In particular we should focus our attention on: Identifying the key features of a variety of engineering systems</p> <p>Describing the purpose of a number of engineering systems</p> <p>Systems are all around us, indeed, we ourselves are examples of a complex system that in turn contains its own nervous, respiratory, and muscular sub-systems”.</p> <p>“this element introduces some of the basic ideas behind the systems found in engineering”</p>	Modality + Present simple
Establishing a common ground (4)	<p>“Welcome to the exciting world of Java 2 programming”.</p>	<p>“1. Introduction to Marketing”</p> <p>“there are five competing and conflicting concepts under which organisations can choose to conduct their marketing activities: the production concept, the product concept...”</p>	<p>“since the 1960s we have become more and more aware of the environmental problems..”</p> <p>“over the last ten years or so much research has gone into producing...”</p>	Present simple
Narrating (7)	<p>The Java programming language was first developed in 1990...”</p>	<p>The first serious development of marketing techniques was in the, so-called, fast-moving consumer goods markets of the USA.</p>	<p>“in Element 2.2 you will be looking at systems in more detail by carrying out the following:</p> <ul style="list-style-type: none"> • breaking systems down into subsystems • describing the functions of subsystems 	<p>Past simple + passive</p> <p>Present perfect</p> <p>Present simple</p>
Listing of content or components (5)	<p>Covers:</p> <p>A contents table</p> <p>Introduction / 8</p> <p>Java 2 SDK Download / 9</p> <p>Install the SDK/ 10...”</p>	<p>“1.1 basic concepts: needs, wants, demands, values, exchange and transaction</p>	<p>Because all systems have a boundary, it is possible to say what is inside the system and what is outside it.</p>	<p>Past simple</p> <p>Present simple</p> <p>Present simple</p>
Rationalising (14)	<p>“As the popularity of the World Wide Web grew Sun recognized that Gosling’s language could be developed to run applications on a web page”.</p> <p>“In order to create a java program the Java class libraries need to be available on the local computer system.</p>	<p>“modern concept of marketing is not fully consumer-oriented.... This calls for a special approach to marketing aiming at the satisfaction of genuine needs and wants”</p>		
Instructing (20)	<p>“enter a name for the program in the “Class name” field”.</p>	<p>“analyse the costs and benefits of marketing approach”.</p>	<p>“now compare this diagram to Fig. 2.60...”</p>	<p>Present simple tense</p>
Locating (15)	<p>“the JPadPro IDE by Model works is available for download from their website at http://www.modelworks.com”</p>	<p>“earlier market was considered as a place where buyers and sellers gathered to exchange their goods like village market”.</p>	<p>“if the system is considered as one unit the block diagram might be as shown in Fig. 2.10”</p>	<p>Present simple + past simple</p>

Table 37 (B):

The communicative function	The text			The tense
	IT	Business	Engineering	
Describing (8)	Installation of JPadPro is straightforward and should automatically detect the java 2 SDK bin directory so that the IDE is ready for immediate use.	“culture consists of the ideas, custom, values, perceptions... that are produced and shared by a particular society. Culture is the most fundamental determinant of a person’s wants...”	“PSUs are an integral part of many electrical and electronic systems, which are mains operated”.	Present simple
Explaining (17)	After the program has completed executing the program instructions focus returns to a standard command prompt.	The objective of marketing is to keep interest in the brands so that they remain relevant to customers, achieve high levels of awareness and become regular purchase items.	“The function of the system is to process the input to produce an output”.	<ul style="list-style-type: none"> • Present perfect • Present simple
Exemplifying (19)	“the example code below creates a String variable called “str” that can be used by the program to refer to the stored text”	“an Omani needs food and wants the locally available bread (Khubz), dates, kahwa and a cold drink”	An example of an undesirable output from a system would be the exhaust gases produced by an internal combustion engine”.	Present Simple Past simple
Defining (15)	“JPadPro is a non-visual Java IDE that allows the user to write, compile and run java programs from a single windows interface without command line instructions.	Speciality goods are those where the exclusivity of the product is part of its appeal.	“a hydraulic jack is a fluidic system”	Present simple
Contrasting (8)	“unlike the “&&” operator that needs both operands to be true the ...”	Unlike fmcg, consumer durables are less frequently purchased.	<p>“All the following quantities and possibly a few others, could be thought of as inputs:</p> <ul style="list-style-type: none"> • Petrol or diesel • Air... <p>Similarly, the following could be thought of as outputs:</p> <ul style="list-style-type: none"> • Kinetic energy • Rotation of the drive wheels ...” 	<ul style="list-style-type: none"> • Present simple + passive. • Past simple
Comparing (7)		Like consumer marketing discussed earlier, organizational marketing involves optimizing what is being offered to a potential buyer in terms of the product itself the price of the product, the availability of the product and the method by which the potential customer is made aware of the product	“you would probably agree that all products and processes do something, i.e. they have a purpose and a function”.	<ul style="list-style-type: none"> • Present simple • Past simple
Categorising (10)		Most consumer durables would fall into one of two categories: shopping goods or speciality goods.	“monitoring systems can be split into two categories”	Simple Past/ Present (modality)

Table 37 (C):

The communicative function	The text			The tense
	IT	Business	Engineering	
Questioning (10)		“ what are the conditions that must be satisfied in exchange process?”	What is a system?	Present simple
Concluding (4)		“This chapter has tried to give a flavour of the richness of marketing in many different types of organizations”.	Concluding “Throughout this chapter so far we have drawn block diagrams to illustrate both the function and purpose”.	Present perfect
referring (forward in the text) (9)	“the program below illustrates how the assignment operators can be used...”	“important factors leading to increasing need of marketing research are as explained below:	I element 2. 2 you will find suggestion for some of these systems	Future verb + Present simple
(referring (backward in the text) (7)	“in the example above the variable named “a” is assigned	“the factors noted above...”	“in Element 2.1 we mentioned that many engineering systems consist of several component subsystems”	Present simple Past Simple
Procedure (13)	Run the downloaded SDK executable and when programmed either accept the default installation path or enter a location”.			Present simple

To sum up the findings of this section:

This analysis identified the communicative functions of 6 chosen chapters of 3 technical textbooks and the tenses and verbs that carry them. There are 20 different communicative functions. The tenses and verbs identified in this analysis are listed in Table 38 below which also shows the tenses and verbs used in the spoken discourse that was analysed in 5. 2. 5. above. These findings are used alongside the results of other analyses to make conclusions about the linguistic and communicative needs of the technical students. This is discussed in 5. 4 (p 230 below). The focus in this study on the verbal group alone at the expense of the nominal group will not in itself lead to a balanced teaching syllabus. Therefore, the grammatical features presented here are examples of how genre analysis can help to understand the syntactic characteristics of the technical genre rather than presenting a comprehensive analysis. This point was also explained in 5. 2. 5. p 186 above.

Table 38: the frequency of tenses and verbs as used in the spoken and written discourse.

The feature	Frequency in written discourse	Frequency in Spoken discourse	Total of frequency
1. present simple	60	49	109
2. future verb will	32	29	61
3. past simple	43	17	60
4. present perfect	30	30	60
5 passive voice	26	32	58
6. negatives	18	35	53
7. questions	23	28	51
8. present progressive	25	25	50
9. past progressive	13	9	39
10. past perfect	10	9	19

5. 3. 3. 2. The Communicative Functions and Layouts of Assignments, exams, homework, workshop activities and quizzes as Technical Genres

Assignments, exams, homework, workshop activities and quizzes share some communicative and layout features. At the same time each shows some features of speciality. These types of genres are different from the textbooks which were dealt with in the previous section. The simplest of

these materials in form and communicative function is a one-sheet quiz, and the most complex is a multi-page assignment that requires a combination of actions to be completed.

1) Assignments:

An assignment may contain different forms, communicative purposes and involve different participants. In this analysis 4 assignments from the three specialisations are examined:

- i) "Unit 1 : Engineering Systems Elements : 1.1 & 1.2, Assignment No. 1"
- ii) "IT, System Analysis and Design (the library System)"
- iii) "IT, Maths, Assignment 1"
- iv) "Business, Marketing"

Figure 21 below shows assignment (i above) as a typical example. It contains seven moves with different communicative purposes.

Communicative purposes

Move 1: stating the name of the institute and department.

Move 2: establishing the module name and number & assignment number.

Move 3: introducing the topic of the assignment.

Move 4: stating a task for the students to perform.

Move 5: stating the required work the student should submit to evidence that the above task has been performed.

Move 6: listing the resources the student can refer to in order to fulfil the required task.

Move 7: stating the methods by which the submitted work is going to be assessed.

<u>Genre Body</u>
<p style="text-align: center;">IBRA TECHNICAL INDUSTRIAL COLLEGE ENGINEERING DEPARTMENT</p> <p style="text-align: center;">Unit 1 : Engineering Systems Elements : 1.1 & 1.2, Assignment No. 1</p> <p><u>The Brief :</u> Among many engineering systems which can be found everywhere around us are the following systems: 1- Tape recorder system ; 2- Electric arc welding system; 3- Steam power station; 4- Hydroelectric power station; 5- Nuclear power station; 6- Solar energy station.</p> <p>For three of the above-mentioned engineering systems perform the following tasks: 1- Identify and describe the purpose, function, inputs and outputs. 2- Represent inputs and outputs using block diagrams. 3- Explain the implications of inputs and outputs. 4- Describe each system in terms of its constituent sub-system and Components using block diagrams. 5- Identify and describe sub-system's functions and relationships 6- Identify and describe control strategies and techniques for each System. 7- Evaluate the performance of each system.</p> <p><u>Presentation:</u> A complete hand-written or word processed report contains the Followings: 1- Action plan; 2- Introduction to the assignment; 3- Complete coverage of the given tasks for three chosen systems; 4- Drawing sheets showing the details of all parts for each system; 5- Checking and evaluating the work-</p> <p><u>Resources:</u> 1- Lecture notes; 2- Handouts; 3- College library; 4- Electrical and Electronic Laboratory; 5- Electrical and Mechanical workshops.</p> <p><u>Assessment:</u> 1- Evaluation of the report submitted; 2- Oral questions; 3- Observation.</p>

Figure 21: The communicative purposes of moves and sub-moves in an assignment

The requirements of assignments differ from one to another. For example, in the IT assignments (ii) "IT, System Analysis and Design (the library System), the students were required to use the questionnaire and the interview as tools for data collection and submit for assessment a written report, a copy of the questionnaire, a copy of the interview paper and an oral presentation.

This means that more than one text may be needed to complete an assignment. Each, of course, consists of a number of moves with different communicative purposes. In (iv) “Business, Marketing”) assignment, business students were required to compose a letter and an order form. Because both the letter and the order form are Business genres they share some common generic features in terms of layout and communicative purposes and of course they differ in some. The communicative purpose of these two genres is summarised in the figure below.

<u>The letter</u>	<u>The order form</u>
Move 1: stating the name, address and telephone and telex number of sender.	Move 1: stating the name of the genre.
Move 2: stating the letter reference number.	Move 2: stating the addressee’s name, his/her address.
Move 3: stating the date of the letter.	Move 3: stating the order reference number.
Move 4: stating the addressee’s name and address.	Move 4: instruction for writing the customer information.
Move 5: expression of endearment	Move 5: stating the customer’s name and address.
Move 6: expressing thanks	Move 6: stating the date of the order.
Move 7: stating a request.	Move 7: stating details of the wanted items
Move 8: stating a need for a reply.	Move 7: stating the method of transporting the order.
Move 9: expressing sincerity	Move 8: stating the method of payment.
Move 10: name, position and signature of senders.	Move 9: signature of the buyer.

Figure 22: The communicative purposes of moves and sub-moves of a Business letter and Order Form.

The mathematical assignment (iii) “IT, Maths, Assignment 1” was nothing more than seven maths problems which students were required to solve, for example, “differentiate $x^3 e^{3x} \sin 3x$ with respect to x ”.

To conclude: assignment genre can be recognised by a shared name and, most importantly, its function as assessment tool that students carry out at their own pace. Assignments have some similarities and differences in form and requirement. The assignment requirements differ according to the specialisation. Form in this genre depends to a great deal on the requirements. For example, a maths assignment, which consists of a number of mathematical problems, does not consist of more than a few pages on which the students write their answer. On the other hand,

a multi-activity assignment may require different material to submit for assessment, such as questionnaire, graphs, reports.

2) Quizzes:

Quizzes are used in the three technical departments as tools for assessing learners' understanding and performance. In this section three quizzes are analysed

- i) "Quiz 1 for BUSG 320 Introduction to Accounting",
- ii) "Quiz-3 Engineering Mechanics"
- iii) "IT 240: Programming in Visual Basic, Quiz 1".

The quizzes are usually not more than two pages long and have some similarities and differences in layout and requirement. An example of a quiz paper was provided in Figure 18 (p 199 above). All the three quizzes consist of two parts, the heading and the quiz questions. The first part contains all or some of the following: the name of the institution, the department, the module, the quiz number, and a space for the student's name and group. The second part provides students with questions to answer as follows:

Quiz (i) contains questions of a recalling type, consisting of one true/false question and three fill in the blanks questions. The amount of words to be written ranges from a single word to a phrase. The quiz is assigned 5 marks. There are no quiz rubrics.

Quiz (ii) contains 5 open-ended questions: questions 1 and 2 ask for definitions, questions 3, 4 and 5 present physical problems to solve. This quiz is assigned 20 marks. There is no quiz rubric except for question 1, which says "Define the following and state their units".

Quiz (iii) is a one sheet quiz. It is practical in nature compared to the previous Engineering and Business quizzes. It asks students to perform a computer program, presenting them with five tasks to do, for example:

- Q 1. use Microsoft visual Basic to create a new project, then add the some objects (as illustrated in a diagram).
- Q 2. change the properties for added objects, as shown in a table.
- Q. 3 write the required codes to do that.
- Q 4. save the form as "Frquiz1" and the project as "Pquiz1".

To conclude: the quiz genre is an assessment tool, which students use in the classroom under the teachers' observation. The requirement of this genre differs according to the specialisation. A quiz may require a practical performance or a written answer. This genre is composed of two parts: the heading in which information about the quiz is provided and the quiz body in which students are provided with questions to answer or tasks to perform.

3) Homework

It was explained in (5. 3) that homework is specific to the Business department. Four home work activities were analysed in this study:

- i) BUSG 130: Introduction to Accounting, Homework 3
- ii) Management Accounting, Homework 2
- iii) Marketing Homework 2
- iv) BUSG 130: Introduction to Accounting, Homework 1

Homework papers are not different in layout from quiz papers. A sample of a homework paper was provided in Figure 19 (p 200 above). All the homework papers analysed in this study consist of two parts: the heading part and the questions part. The first part contains the name of the institution, the department, the module name and number, the homework number, date of submission, (marks, not true to all papers), and a space for the student's name and group.

The questions section contains open-ended questions ranging in number from 1 to 5. Such questions either ask the learner to explain a certain phenomenon, e.g. "explain the social factors that could influence social behaviour", or to perform calculations on accounts and balances.

To sum up: the homework genre consists of assessed pieces of work similar in their function and layout. Homework is similar to the quiz in its layout and content. It differs from quizzes in that it is done outside classroom time by the students at their own pace. This is similar to the assignments yet its weighting and importance is very much less than an assignment.

4) Workshop activities

It was explained in (5. 3) that workshop activities are specific to Engineering departments. In this section 3 workshop papers are analysed:

- i) Electrical Workshop activity 1
- ii) Electronic Laboratory activity 1

iii) Mechanical workshop activity 3

Workshop activity papers are similar in text, form and some communicative purposes to quizzes and homework. On the other hand, because they require the conducting of a lab experiment, they are unique in the communicative purpose of the tasks. A workshop paper consists of five parts: the headings, the text, the task, the required evidence of performance, the resources the students may use, guidance for assessment. A sample of a workshop activity paper was presented in Figure 20 (p 201 above). Thus, a workshop genre is unique to Engineering studies. It requires students to perform a practical task and keep a record of it. The texts of this genre are similar in their layout and organisations.

5) Exams:

Exams (mid-term, final and resit) consist of and have multiple communicative purposes. The corpus of exam papers that is collected from the three technical areas shows a variation in form and layout, even within the papers of one specialisation. In this analysis eight exam papers are examined:

IT:

- i) Resit Exam: IT 410- introduction to java Programming, Semester II (2001/2002)**
- ii) midterm exam: IT 210: Database Management**
- iii) mid-semester III examination: MATC 210 Mathematics II**

Engineering:

- i) Final Examinations: ENG M 440: Pneumatics and Hydraulics, Second Semester, April 2002.**
- ii) Mid-Summer term examination: ENGA 420- Engine Chassis Technology**
- iii) Mid-term exam: ENGG 220, Engineering Mechanics**

Business:

- i) Mid term examination: BUSG 430 Business Correspondence, May 2002**
- ii) Final examination: Financial Accounting-I I**

The main components of all these exam papers are the top sheet, the rubric and the exam questions. The communicative purpose of a top sheet is to state the name of the institution, the department, the subject name/code, the student's name and group and a marking grid.

The main communicative purpose of the exam rubric is to help students understand what to do to fulfil the requirements of the exam question(s). A common feature of such rubrics is that they are short phrases or sentences, for example, “part A: short answer question”, “write a Java program that finds the average of 5 integers in the one-dimensional array”.

There are different types of exam questions, which are summarised in Table 39 below.

Table 39 (A): The types of questions in the technical exams.

1. Multiple-choice questions, for example:

<u>IT</u>	<u>Business</u>
<p>1- Redundant data in a file-based system means:</p> <p>a) Duplication of data.</p> <p>b) Each program may have its own copy of data.</p> <p>c) Same field may physically occur in different files</p> <p>d) A and b</p> <p>e) All of the above</p>	<p>1- Written business letters are examples of :</p> <p>a) electronic communication</p> <p>b) verbal communication</p> <p>c) written communication</p> <p>d) none of the above</p>

2. True/false questions, for example:

<u>IT</u>	<u>Business</u>
<p>Classify which of the following is true and which is false:</p> <p>() a relational database is a database type that is perceived by its user as a collection of tables.</p> <p>() a concatenated key represents the combination between two attributes.</p>	<p>Tick as appropriate the answer to the following questions:</p> <ul style="list-style-type: none"> • Official government letters are mainly sent to seek information and to pass on instructions. • Salutation and complementary close should not match.

3. Recalling of information questions:

<u>IT</u>	<u>Engineering</u>	<u>Business</u>
List the rules to break a many-to-many relationship (it)	Write the main parts of a manipulator (ROBOT) (ENG)	List the main occasions for writing goodwill or public relations letters

4. Open-ended questions:

<u>Engineering</u>	<u>Business</u>	<u>IT</u>
What are the methods used to improve the power factor?	Briefly explain the effective steps for writing good business letters.	Define in detail the following: One-to-many relationship Foreign key

Table 39 (B):

5. Solving maths problem questions.

<u>IT</u>	<u>Engineering</u>
"Find the gradient of the tangent to the curve $y=2x^2 - 9x+ 3$ at the point (2.3)".	"Calculate the strain that will be produced by a tensile stress of 10MPa stretching a bar of aluminium alloy with a tensile modulus of 70 GPa".

6. Fill in with missing words

<u>Engineering</u>	<u>Business</u>
One device to measure viscosity is called.....?	Business letters.....marketing and transactions of businesses. Completing tables

7. Fill in table : Fill your answer in the provided blank:

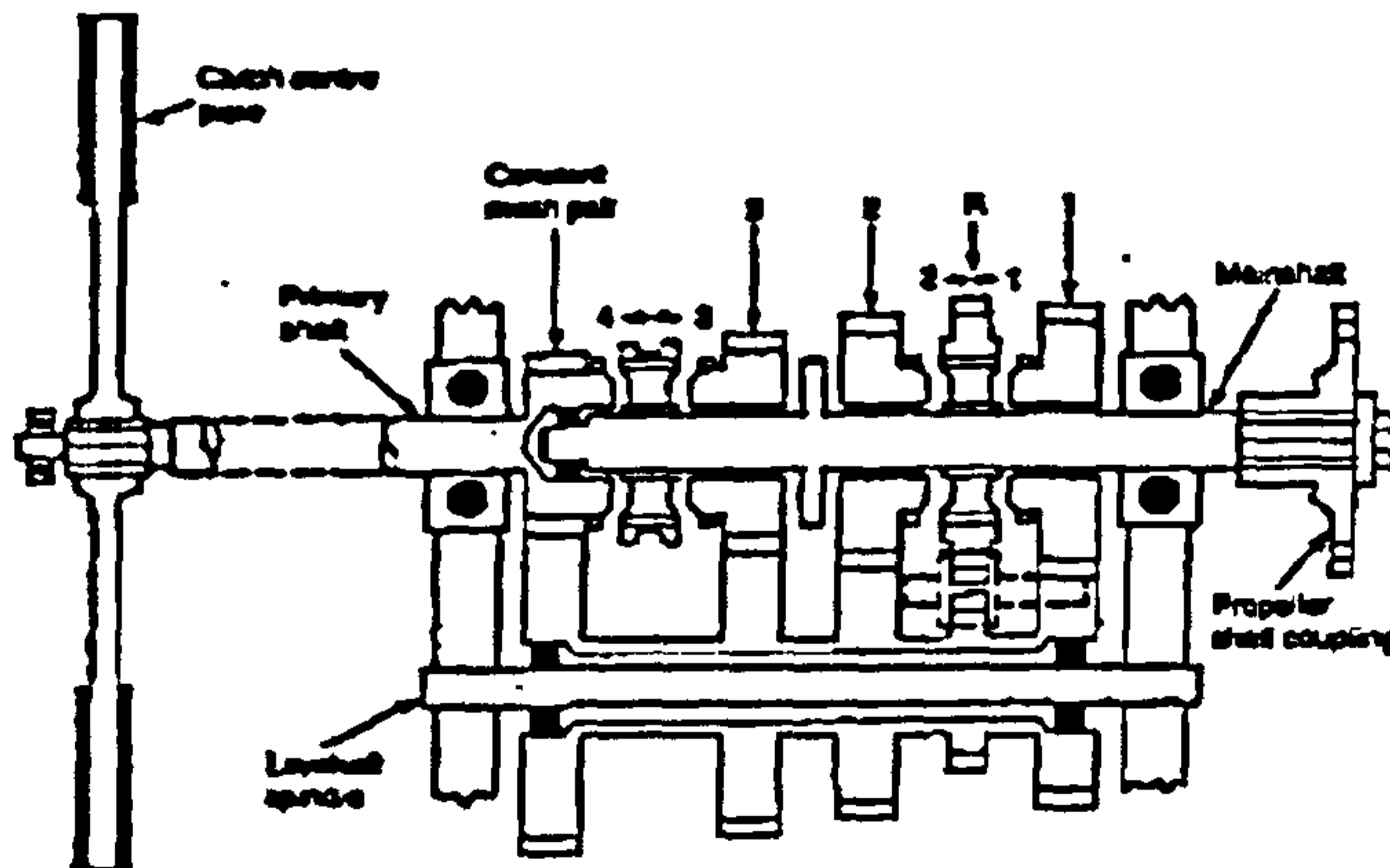
No	Term	Definition	Equation	Unit
1	Moment		$M= Fxr$	
2		Ratio of the applied (external) force to the cross-sectional area.		Pa
3	Strain			None
4		Maximum stress that the material can withstand before it breaks		Pa

8. Writing steps of performing a computer program (IT)

"write a Java program to categorize a single character that is entered at the terminal as follows:
 for characters from A to Z, display "it is a capital letter"
 for characters from a to a, display "it is a small letter"
 otherwise, display "it is a special character"

9. Naming parts of a diagram:

For the shown clutches, write the type of each clutch and name 5 parts of each.



The main feature of the exam genre is its function to assess the learners' attainment either in the middle of the semester, end of semester or for reset. Exam text consists of different layout, sections and subfunctions.

To sum up the findings of assignments, exams, homework, workshop activities and quiz analysis:

- There are some similarities and differences in the assignments, exams, homework and quiz layouts and communicative functions.
- The most sophisticated type of the analysed genres is the assignment which may consist of multiple texts, contain different forms, have several communicative purposes and involve different participants.
- The simplest of these materials in form and communicative purpose is a one-sheet quiz,
- Exams (mid-term and final) consist of multiple parts and carry different communicative purposes and show a variation in form and layout, even within the papers of the same specialisation.
- These finding will be used alongside those of the other sections to provide conclusion about the nature and communicative purposes of the technical genre and its implication for the development of the FYP, which are discussed further in (5. 4 and chapter 6).

5.3.4. The Linguistic Features of the Genres

The purpose of this section is to provide an understanding of the nature of the lexico-grammatical features of the technical genres that are found in the technical departments: IT, Business and Engineering. This objective is essential for two reasons. First, lexico-grammatical analysis is a major component of genre analysis (Coffin, 2001; Swales, 1990; Johns, 1997 and Nelson, 2000). After outlining in (5.3.2. and 5.3.3.) an idea about the contextual, organisational and communicative features of the material that dominate each of the three fields of technical studies: IT, Business and Engineering, an analysis of the lexico-grammatical features of such material is reasonable. Second, the technical vocabulary was frequently discussed during the interviews that I conducted with the technical teachers and students in the technical colleges in Oman. The interviewed students complained that the FYP did not provide them with the knowledge of the technical vocabulary they face in their technical studies. This point was, also, supported by the technical teachers who said that the FYP graduates were not familiar at all with even the simplest

of technical words (see, 4. 3. 7. p 170 above). Therefore, this section tries to provide an understanding of the nature of the lexico-grammatical features of the technical genres.

In order to provide solid evidence of the type and nature of the lexis and grammar, a quantitative analysis was conducted. This lexico-grammatical analysis was carried out with the aid of the WordSmith programme. WordSmith is a software tool that analyses a given text in different ways. It can provide a frequency list of all the words that a text may contain. The concordance facility enables the analyst to see given words in a cluster or clusters of words (Scott, 1998). Comparing the technical corpus in terms of lexico-structural features with a General English corpus using software machines such as Cobuild was considered but not done. I believe that such a comparison might be needed if the candidates learned English in two language programmes, one being English for General Purpose and the other is English for Academic/Specific Purposes. The FYP is the only programme in the colleges the students learn in English so as to be able to study in the technical course there is, therefore, no need to make a comparison of the contents.

Textbooks, assignments, exam papers etc. were first scanned into the computer to turn them into Word document texts required by WordSmith. Because the textbooks were not original but poorly photocopied, it was very difficult to scan all of their content. So, it was possible to scan only a total of 198,735 words (Business 66,008, Engineering 66,682 and IT 66,045). This, therefore, can not be regarded as other than a small sample of the whole corpus, since it was not possible, practically, for the present study to analyse all documents found in the three technical departments.

5. 3. 4. 1. Lexis

A theoretical framework for lexical analysis was provided in the literature review chapter (see 2. 8. 5. p 103). Words are classified according to their frequency and range into different categories i.e. high-frequency words (general words including function words and content words), low-frequency words (may include technical words, subtechnical words, general words), technical words, academic words (Nation, 2001). Categorizing words according to their frequency is not without its problems. The boundary between the high-frequency words and low-frequency words is not clearly identifiable. Some low-frequency could be placed in high-frequency list depending on the nature of the corpus. In addition, some technical words occur in the high-frequency words and sub-technical words. The list of low-frequent words contains words e.g. James, Tim, John, that occur very frequently in some texts like newspapers and novels. Some low-frequency words

are not technical or specific to a particular discipline but because they are rarely used in the language i.e. old terms, very formal, or belong to a particular dialect etc. An example of such words in the analysed corpus is the local names of foods i.e. "khubz", "Kahwa" which appeared in the Business material. Range does not always reflect the real use of a word or its identification as general, technical or subtechnical. Some technical words have a very low range within a corpus. They do not spread evenly throughout a text but cluster in a particular section. It is, therefore, also important to consider the meaning in deciding whether a word is technical/academic. Some words have a technical meaning and another meaning when they are used outside the technical field for example "mouse" in IT. Therefore, the analyst's experience and intuition should be another factor in the classification of words (Nation, 2001).

Bearing in mind such difficulty, the present analysis finds that the following characteristics exist in the lexis of the technical corpus. Some of these findings are similar to those found about the lexis of the spoken genre that was presented in 5. 2. 5. above.

1. Technical abbreviations (Kennedy and Bolitho, 1984) e.g. C++ , M=Fxr, MPa etc.
2. High-frequency words which consists of two subcategories (Nation, 2001):
 - a) Function (grammar) words like adverbial particles, auxiliary verbs, prepositions etc. (Nation, 2001 and McCarthy, 1991). These words will be discussed in the syntax section.
 - b) Content words such as nouns, verbs, and adjectives (Nation, 2001 and McCarthy, 1991) e.g. official, government, strain etc.
3. Technical words (Nation, 2001) also high technical vocabulary (Hullen, 1981) and hard terminology (Fanning, 1993). These words are of different levels of technicality. There are words that never appear or appear very rarely outside their particular fields (Nation, 2001) such as "Java", "JPadPro" in IT. Some of these words were provided in the spoken genre analysis (see 5. 2. 5. above). There are also words such as equation, acceleration (Engineering), recruitment, manpower (Business), download, (IT). These words have technical meanings in their specialisation but can also be used in other specialisations or even general English to give the same meaning (Nation, 2001).
4. There are also subtechnical words (Nation, 2001) which are used in more than one discipline but have different meanings in the different specialisations, for example, "system" in IT (computerised programmes and appliances), Engineering (machine e.g cooler, motor) and Business (a set of roles and duties in an organisation or establishment).

Also, words of different length ranging between 1 and 14 letters, are found. Word length in a genre is an indicator of lexical complexity with longer words conveying more specific, specialized, meanings than shorter ones (Flowerdew, 1994).

In terms of frequency the most frequent words in all the three field documents are the articles “A” and “THE”. It is also noticeable that although the most frequent words are prepositions, articles, and auxiliary verbs, among them occur some field specific words. For example, among the first 10 most frequent words, in Business are: “marketing” and “product”, in IT: “system” and “UNIX”, and in Engineering: “control” and “system(s)”. the first 10 most frequent words are shown in Table 40 below:

Table 40: the first 10 most frequent words in the technical corpus

No	IT		Business		Engineering	
	word	Freq	word	freq	word	Freq
1	The	3189	the	3823	The	4524
2	And	1724	of	2453	A	2176
3	To	1556	and	2095	to	1703
4	For	1277	To	1969	and	1563
5	System	1214	For	1969	is	1435
6	a	1114	marketing	1460	control	876
7	Unix	1018	in	1268	for	790
8	in	816	a	1188	system	672
9	Is	685	is	1099	it	628
10	are	573	product	942	systems	625

The general impression is that there are some words of very high and others of very low frequency. For example, In IT documents, only 15 words occur more than 100 times. On the other hand, there are 935 words that occur only once. *“Those items which occur with high frequency in a text are not likely to contribute to the overall complexity of the text. Because they are frequent, they are likely to have been encountered before and will thus not create an extra processing load. Words which occur less frequently, on the other hand, because they are likely not to have been encountered previously in the text, or have been only encountered infrequently, will create an extra processing load and level of complexity”* (Flowerdew, 1994, p 102).

It is also noticed that, regardless of their frequency, some words in the analysed texts cluster in families, for example, applicable applicant, applicants, application, applications, applies, apply,

and applying. Such clustering, if highlighted by the teachers, may help the students to learn these words with less difficulty, since it makes such words easier to understand. For example, market, marketable, marketed, marketer, marketers, marketing, marketplace, markets, market's are all Business vocabulary, and when seen as one group it is likely to be easier to understand both their core meaning and their different meanings. Nelson (2000) stresses the importance of word clusters in vocabulary teaching. He suggests that students can be explicitly taught these clusters and also made aware of how smaller clusters are often part of much larger ones (Nelson, 2000).

5. 3. 4. 2. Syntax

Studying every single aspect of the grammatical features of the technical genre is far beyond the scope of this study. Thus, prioritising, as McCarthy (1991) advises, is a wise option. Tenses, articles, auxiliary verbs, logical connectors e.g. though, thus etc., pronouns, and wh words, are the focus in this analysis. These grammatical features are chosen, because they have gained noticeable attention in the analysis of the EAP/ESP genre (Dudley-Evans and St John, 1998). This means that this study does not claim to provide a detailed syllabus in terms of the grammatical input for the FYP. To offer a comprehensive one as suggested above there is a need for further linguistic analysis. What the present study presents are sample items based on the analysis that was carried out of the verbal group in the selected texts.

Although the computer program used in this analysis does not provide a statistical measurement of the tenses used in this genre, it is possible to highlight them and count them manually. Generally speaking, different types of tenses are used. Table 41 below shows the different tenses identified in this analysis. The numbers in brackets refer to the frequency of occurrence of these features in the corpus of the three specialisations together. The communicative functions of these tenses were pointed out in 5. 3. 3. above. The most commonly used tenses are present simple, present perfect, past simple and future verb- will/shall. The present simple tense is the most commonly used tense in these genres. Past perfect, past progressive and present progressive are used much less frequently. A remarkable feature, actually, is that the progressive form, whether past, present or with future verbs, is very rare. In IT documents, for example, it occurs only 23 times out of 307 times that the verb to be (be, is, are, was, were) is used.

Table 41: The tenses that are found in the technical genre.

The Tense	Examples
Present Simple (60)	all forms of marketing communication increase product All Calls are subject to %10 of tax. d- there The record on the left shows , four fields namely
Past simple. (43)	He was unhappy using the C++ programming language so he created a new language that he called "Oak" after the Oak tree
Future verb (32)	science or English will be included in the r box b. The above action will open the FILE NEW , click The next screen will show the name of y
Present Perfect. (30)	throughout the industry have joined together to d universities and colleges have played a major role riced hard-disk storage have allowed manufactur
Present Progressive (24)	r 2 through 10 while you are sitting in front of a t eleonlike user interface are helping it to emerge u can move the job you are working with into the
Past Perfect (10)	fter you had entered all the fields for the STUDE committee for vocational training had issued a decision they had designed the "right" product bas

The analysis shows that the passive voice is used with the auxiliary verbs be, are, is, were, was. Examples of such uses of passive voice are shown in Table 42 below. The passive is used, as in general English, to delete actors that are unimportant, or whose identity is understood from the context.

Table 42: The uses of passive voice in the technical genre.

The voice	Example
Passive voice with the auxiliary verb be	strong relationship can be established between g what products should be added or deleted. Ide vities) so that these can be assigned to individual
Passive voice with the auxiliary verb are	are grouped, then they are allotted to different in gh which human wants are satisfied by the exch e coincide. These steps are illustrated by the foll
Passive voice with the auxiliary verb is	line manager, since he is engaged in organizing typical life cycle model is given in the figure on ed Person actually ants is influenced by his or h
Passive voice with the auxiliary verb were	ubmitted Following data were collected from 73 f hese additional features were incorporated into J y of the worst problems were rectified by newer v
Passive voice with the auxiliary verb was	Unix operating system was created. The Cambr ever, the FIRST NAME was not identified as a them. The UNIX system was developed by resear

There is also a considerable use of negative statements in the form of the auxiliary + not (or short form n't). In Engineering documents, such statements occur 15 times, in IT 56 times and in Business 225 times. It is essential for the FYP to equip its students with knowledge of and skills in using such syntactic features, with particular focus on the most frequent uses, such as the present simple.

The three articles, "a", "an", and "the" are all frequently used, with no significant difference between the three technical specialisations, as illustrated in Table 43 (p 227 below). There is a frequent use of auxiliary verbs in all the material, with some differences. The auxiliary "AM", for example, does not occur in all the subjects. The auxiliaries "IS", "ARE", "BE", "HAVE", "HAS" are the most used. These different uses are illustrated in Table 43 below. There is also a frequent occurrence of wh words, either as question words or as pronouns (what), adverbs (where, when, why), as seen in Table 43 below. Other words of importance are those which maintain coherence, mark topic continuity or shift, and emphasise/deemphasise the value of a fact/event. These types of words are labelled in grammar as adverbs of frequency, adverbs of degree, prepositions, quantifiers, and ordinal numbers. The frequencies of such words are set out in Table 43 below.

5.3.5. Summary of the Findings of the Corpus Analysis and Feedback for the FYP

The findings of this analysis of the technical genres can be fed back into the FYP and can be used as a foundation for the design of teaching materials and teaching strategies, for two reasons. First, the analytical methodology applied here has enabled the study to come out with a deep comprehension of the nature of the technical genres that are used in the three specialisations in the colleges of technology in Oman. This analysis was based on relating the text to its context. So, both the conventionalized textual regularities, e.g. layout, lexis, semantic and the conventions of the society that uses them, e.g. participants, contexts, communicative purposes, have been studied. This textual-contextual perspective is now eminent in genre analysis. Freedman (1999, p 764) writes “...genres are best understood not so much as text types, to be defined by their textual regularities, but rather as typified actions in response to recurring social contexts. The textual regularities are not ignored; they are seen as symptoms of or traces of socially constructed responses to equally socially constructed recurrent or typified situation types”. Basing this analysis on such a theoretical background, revealed a body of knowledge about the technical genre including the following phenomena:

- The names of genre,
- communicative purpose(s) of the shared genres or their subcategories,
- the roles of readers and writers,
- the contexts in which these genres are used,
- the formal text features (conventions),
- the text content, such as the types of content and vocabulary in a text and organization of the text,
- the register (lexis and grammar),
- and an awareness of referencing forward and backward.

The findings of the genre analysis report here complement those of the other tools, providing first-hand information about the language uses that were reported as done in the questionnaire and interviews. It also provides thorough and detailed information about the characteristics of the technical language, an advantage that was not gained by the interviews.

Genre analysis has also an implication for language teaching not just needs analysis procedures (Hopkins and Dudley-Evans, 1988, Christie, 1999, Freeman, 1999 and Salahshoor, 1999). Bhatia (1994, p 58) writes that “now, with the advent of discourse and genre analysis in recent years,

our language-teaching programmes are becoming more explanatory, so that the learner consciously knows why he is writing a particular academic or professional text the way he does. This makes him better aware of the rationale of the text-genre that he is required to read and write. After all, the most important function of learning is not simply to be able to read and produce a piece of text as a computer does, but to become sensitive to the conventions in order to ensure the pragmatic success of the text in the academic or the professional context in which it is likely to be used". Results of genre analysis studies, thus, are used in different ways to support language teaching. For example, Cheung (1993) believes that his study results can be used as a foundation for syllabus design. Anthony (2000) used the genre analyses results of his study to design and implement a genre approach to teach English writing in a Japanese university.

A reasonable portion of the content of the FYP should therefore be founded on the identification and analysis of the specific genres that students are required to read, write, speak, and listen to in their IT or Business or Engineering studies. It should be made clear here that teaching of genre in the FYP should not be only for the sake of language teaching, but also for the fulfilment of the learners' target situation needs. This requires a balancing of the content of FYP. The FYP course should not be based entirely on a pure genre approach. A pure genre-based pedagogy (Scott and Groom, 1999) might not be the most suitable for the purposes of the FYP; not least because the FYP learners' needs are far more than genre conventions. Besides genre knowledge and skills, FYP learners need English for General Purpose and Study skills, as will be discussed in (5. 4). All in all, teaching genre in the FYP should assist pedagogically in the following ways:

1. Familiarising the FYP students with the different genres they will work with when they move to the technical studies, IT, Business and Engineering.
2. Identifying and focusing in a principled way upon different kinds of English texts.
3. Providing a framework for learning grammar and vocabulary.
4. Helping the FYP teachers identify and design objectives for teaching English in the programme,

Integrating genre skills and knowledge into the FYP content will be discussed in chapter 6.

Regarding the findings about the technical genres, this study found that there were different types of genres used in the three technical specialisations. The technical textbook is not the only genre the students work with but is the most complex one. Even the technical textbooks, as this analysis has revealed, consist of different subgenres e.g. introduction chapters, introductory sections, conclusions, etc.

The study identified the different communicative functions each type of genre carries. Although the lexical/ grammatical analysis does not cover all the technical material, it nevertheless provides an idea of the lexis and syntax of the technical English in the three specialisations. The study reveals that the technical genre not only includes technical words, but General English words as well, e.g. sun, cat, car and grammar words, e.g. in, on, have. The fact that numbers of these words cluster in word families should be emphasised in the FYP. The value of such a fact is that being aware that words group in families eases the learning and understanding of them.

In the grammar domain, simple present, simple past and present perfect are the most frequent tenses in the analysed genres, which suggest that emphasis should be given to them and the communicative function they have. In addition, students should be aware of the use and construction of auxiliary verbs, articles, conjunctions, pronouns, wh words, adverbs of frequency, quantifiers, and adverbs of degree, as these are very dominant in the analysed genres.

The subject teacher is not the only person a technical student deals with. There are lab technicians, for example. Some assignments require students to contact people beyond the teaching community for data collection. Although students do not always use English to communicate with these different audiences, they need to be aware of this variation in audience when English is used. The spoken communicative involvement of the college students is beyond the scope of this study.

What the FYP syllabus, which I assume in the light of such an analysis, might look like, will be discussed in detail in the following chapter when the results from the interviews, classroom observations and questionnaires are all brought together.

A conclusion providing the outcome of both chapter 4 and 5 is given in 5. 4. The results of this chapter, alongside the results of chapter 4, will be used to make recommendations for the improvement of FYP, which is discussed further in chapter 6.

5. 4. Conclusion for Chapters 4 and 5 (initial perspective of implications for the FYP)

This conclusion aims at bringing together the findings of the analysis of the questionnaires, the interviews, the technical documents and the classroom observations that were conducted in chapters 4 and 5 and discussing their implications for the FYP. The findings in Chapter 4:

revealed that the current FYP was not producing learners able to cope with the language demands of the technical course because the content of the programme was not based on the learners' needs. To help improve the FYP, I believe that the language uses and the linguistic features identified by this study, as found in the technical classrooms, should be regarded as the learners' target language needs on which the FYP should be based.

It should be emphasised here that the language uses and linguistic features do not occur in isolation from each other. More than one skill can be needed/used at the same time. For instance, the learner may write and listen or write and read simultaneously. In addition, note-taking during a lecture is a study skill in an academic context but it is also a writing skill that includes a listening skill that might use a certain type of genre for example, Form, Questionnaire etc. Yet, to make these components more feasible and easier to deal with, especially in terms of presenting them as course objectives, they should be classified in a way which helps me and other professionals, e.g. FYP teachers, to relate them systematically to the conventions of objectives design and language teaching. It is a common tradition in English Language Teaching to speak of four language skills: reading, writing, listening and speaking. In addition to language skills there are study skills. Study skills are the "*abilities, techniques and strategies... which are used when reading, writing, or listening for study purposes.*" (Richards and Schmidt, 2002 p 521). The study skills help learners adopt effective learning habits, take more responsibility for their learning, and become more active and more effective learners (Woodward, 2001). The literature, also, speaks of linguistic skills (language system) namely grammar and vocabulary (Graves, 2000) and their important role in teaching English as a foreign language (Harmer, 2001). Genre skills are also used in the literature, especially when English is taught for specific purposes, e.g. Business, Engineering. In light of this discussion, I group the students' target needs in four areas:

- 1) Language systems, e.g. vocabulary and grammar.
- 2) Language skills, e.g. writing a one-paragraph piece of work,
- 3) Study skills, e.g. using dictionary to look up meanings of new words, taking notes down,
- 4) Genre skills, e.g. business letters.

There is a very close relationship between these four groups. For example, while the communicative functions of the technical genre provide the functional application of language in the technical course, the language skills and study skills provide the context in which such functions are carried out. For example, **Describing**, which is a communicative function, can be carried out in short talks, a written explanation of a content of visual, formal letters, interviews

etc. The syntax provides the means for carrying out the communicative functions. For instance, **narrating** can be executed by using for example, past tense, while **sequencing** needs the use of ordinal numbers.

Table 44 p 235 below contains all the language skills/subskills, communicative functions, vocabulary and grammar features considered applicable to the three technical specialisations IT, Business and Engineering, as found by this study. The table synthesises the language uses and features resulting from the analysis of the questionnaires, the interviews, the genre and the classroom observations that were conducted in chapters 4 and 5. More specifically, the table shows:

1. The reading strategies needed by the technical students.
2. The types of reading texts used by them.
3. The types of written texts composed by the students and their lengths.
4. The type of oral (listening and speaking) activities the students are involved in.
5. The communicative functions associated with reading skills and writing skills that the students perform.
6. The communicative functions associated with the oral skills that the students perform.
7. The tenses and other grammatical features used in the technical material and classroom speech.
8. The types of vocabulary used in the technical material and classroom speech.

The implications of these eight components for the teaching of grammar, vocabulary reading skills, writing skills and oral skills, in the FYP are as follows:

1. Grammar

The FYP students should be able to understand and use the tenses and the other grammatical features used in the technical classes. Although the tenses used in each of the three specialisations were not analysed separately, the impression I got from the other features, e.g. auxiliary verbs, articles, verbs of frequency etc. which were analysed according to either IT, Business or Engineering, is that there is no great difference between the use of such features according to the specialisation (a comparative analysis of such features was provided in Table 43 (p 227 above). Therefore, I conclude that all the grammatical features that are highlighted by this study can be taught to all the students of the three specialisations equally. It was pointed out in 5.3.4.2. that because this study is selective in terms of the grammatical items analysed, the grammatical

features presented in this study do not provide enough material for a detailed grammatical syllabus. A further comprehensive linguistic analysis would be required to present one. The outcomes of this analysis can, however, be used to provide samples of the students needs in regard of the grammatical competence and skills. Although the frequencies show the importance of the analysed items, they are not used in the suggested syllabus for prioritisation purposes because other features which have not been examined might have proved more frequent.

2. Vocabulary

The FYP students should be able to use and understand the general lexical words and grammatical words in reading, writing and oral skills, as pointed out by this study.

3. Reading skills

The FYP students should be able to apply the four types of reading strategies, using the types of reading texts to understand one or more of the communicative purposes associated with reading skills, as indicated by this study.

4. Writing skills

The FYP students should be able to write all types of written texts (ranging from one word to multi-paragraphs) to compose one or more of the communicative functions associated with, as identified by this study.

5. Oral skills (speaking and listening)

The FYP students should be able to participate in all the types of oral activities to understand/perform one or more of the communicative functions associated with them, as shown by this study.

Figure 23 P 234 below illustrates how the language skills (reading, writing, speaking and listening), communicative functions, grammatical and vocabulary features are used together to design the course objectives for the FYP. The figure shows five categories of the FYP learners' target needs: oral skills, reading skills, writing skills, grammar and vocabulary. The content of the figure is derived from Table 44 p 235 below which synthesises the learners' language needs as revealed in chapters 4 and 5. A further discussion of the implications of assigning these objectives to the teaching of English in the FYP will be presented in the next chapter.

For the FYP students to be able to cope with the reading, writing, oral skills, study skills and language systems in the technical course they should be able to...

Figure 23: The five categories of the FYP learners' target language needs.

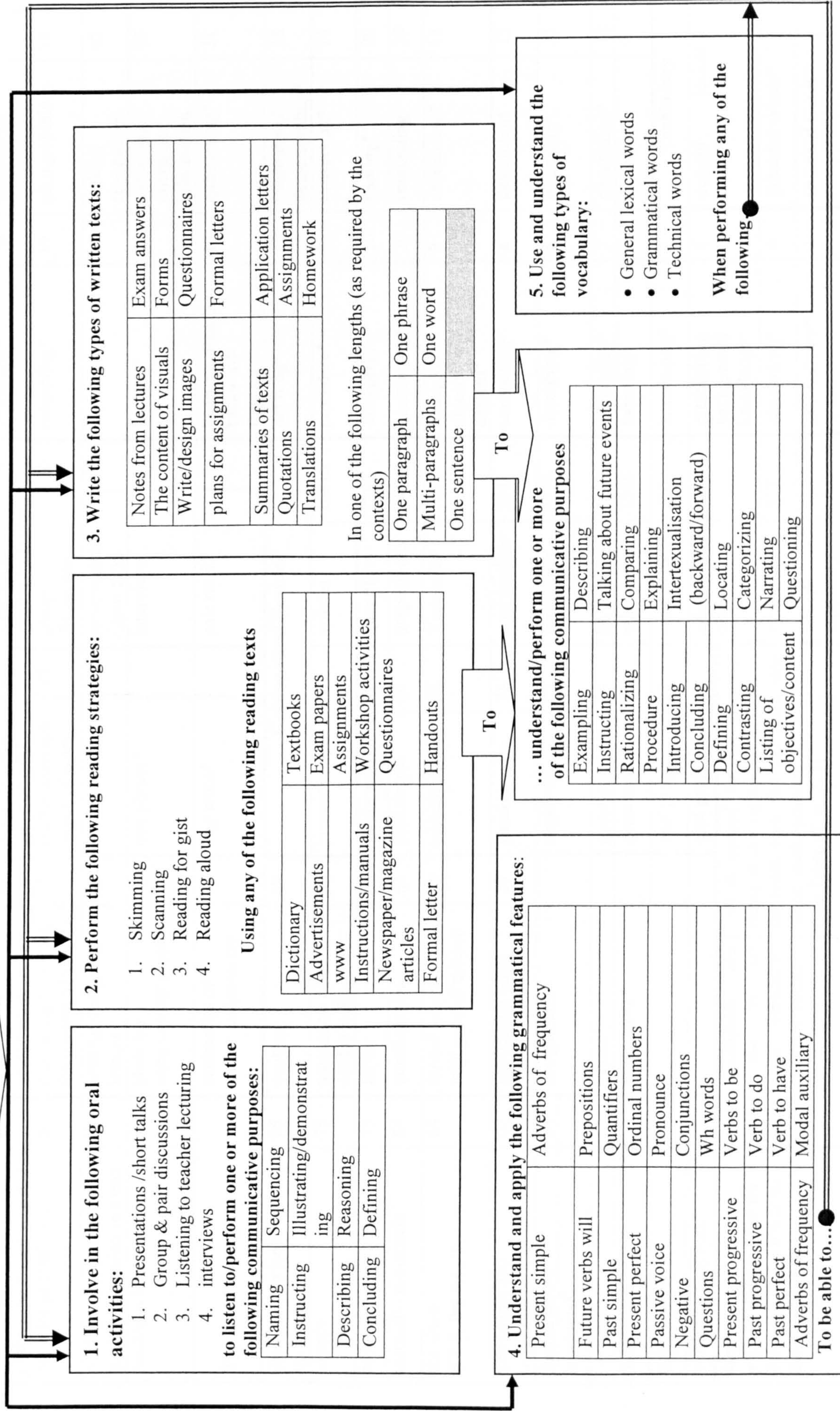


Table 44: Synthesis of the language skills, texts, communicative functions, grammar and vocabulary that are used in IT, Engineering and Business as found out by questionnaire, interviews, genre analysis and classroom observation.

Reading		Writing			Oral skills		Communicative functions associated with skills					
Reading Strategy	%	Types of written Texts	%	Amount of writing	%	Type of oral discourse	%	Reading and Writing skills	%	Oral skills	%	
read to understand all/most of the information in a text	85	writing down notes from lectures	82	one-paragraph piece of work	81	listening to teacher lecturing	79	instructing*	20	instructions	72	
read for general ideas	80	explaining in writing the content of visuals	75	multi-paragraph piece of work	70	group discussion	70	examplifying*	19	giving opinions	70	
read to understand the main information in a text	77	writing/ designing images	74	one sentence*	66	presentations /short talks	66	explaining *	17	making suggestions	65	
reading a loud	59	plans for assignments/ projects	73	one phrase*	55	interviews	55	locating*	16	correcting mistaken information	62	
Types of Reading Texts		summaries of text or assignments	73	one word*		pair work*		intertextualisation backward/ forward	15	questioning*	31	
dictionary to look up words	85	quoting	69	Grammatical Feature				defining*	15	illustrating/ demonstrating*	28	
visuals	75	translation from Arabic to English	66	present simple	109	articles	16816	procedure*	13	instructing*	24	
advertisements	73	forms	65	future verbs	61	quantifiers	1882	categorising*	10	naming*	20	
instructions/manuals	64	questionnaire	64	past simple	60	prepositions	14298	questioning*	10	responding	19	
the www (IT & Business)	63	formal letters with general content	59	present perfect	60	Verb to be	7037	listing of objectives/ content*	9	sequencing*	15	
newspaper and magazine articles	62	application letter	57	passive voice	58	conjunctions	5643	contrasting*	8	describing*	13	
formal letters	59	assignments*		negatives	53	pronounce	3312	describing*	8	reasoning*	11	
handouts*		exams*		questions	51	M. auxiliary	2149	comparing*	7	concluding*	10	
textbooks*		home work*		present prog.	50	wh word	1345	narrating*	7	defining*	9	
exam paper*				past prog.	38	verb to have	920	introducing*	5	Vocabulary		
assignments*				past perfect	19	adverb of degree	918	establishing background knowledge*	4	general words*		
workshop activities*						verb to do	517	concluding*	4	grammar words*		
Key:		The numbers are either the % of participants' responses or total of occurrence.		It is normal for the grammar items in the right-hand column to be more than the left hand one since each consists of subitems (see Table 43, p. 227)								
The * distinguishes the items which are not from the questionnaire.						adverb of frequency	389	rationalising*	4	technical words*		

This conclusion has provided an initial perspective on the implication of the study's findings for the reality of the contemporary FYP. The discussion was focused on transforming the language uses and linguistic features into course objectives for the FYP. Applying those reading, writing, oral, vocabulary and grammatical objectives to the FYP in perspective has many implications in terms of organisation of the FYP, how time during FYP is divided up, the material used, the assessment of the students, evaluation of the programme and relationship between the FYP and other departments. The next chapter discusses the implications and makes recommendations for helping the FYP to achieve the objectives outlined above.

Chapter 6: DISCUSSION

6. 1. Introduction

The ultimate objective of this chapter is to discuss the findings of the study and their implications for the FYP. Through out the chapter the implementation needs (Waters and Vilches, 2001) of the study findings and recommendations will be pointed out in order to guarantee a successful implementation. I argued in (5. 4) above that the study findings revealed that the FYP was not producing learners able to cope with the language demands of the technical course because the content of the programme was not based on learners' needs. To help improve the FYP, I believe that the language uses and the linguistic features identified by this study as found in the technical classrooms should be regarded as learners' target language needs on which the FYP should be based. Applying those reading, writing, oral, grammatical and study skills objectives which were presented in (Figure 23 p 234 above) to the FYP in perspective has many implications in terms of organisation of the FYP, how time during FYP is divided up, the material used, the assessment of the students, evaluation of the programme, staff development and relationship between the FYP and other departments.

In what follows an overview of the implementation needs is provided in 6. 2. The implications for the underpinning principle, content, time and organisation of the FYP are presented in 6. 3. The implications for the teaching material and methodology are presented in 6. 4. The implications for staff development are discussed 6. 5. The implications for assessment are examined in 6. 6. The implications for the evaluation process are discussed in 6. 7. A timetable for the execution of the change is offered in 6. 8. A conclusion of the chapter is presented in 6. 9.

6. 2. An Overview of the Implementation Needs

Doubtlessly, needs analysts have to consider from the early stages the implementation needs (Waters and Vilches, 2001). This should be done by accounting for those who will implement and use the change. Proposing a sound syllabus and recommendations for change does not guarantee successful execution, if the implementation is not planned for carefully and the different bodies e.g. teachers, managers, students, administrators etc in the implementation field are not thought about seriously during the planning stage (Markee, 2001; Wedell, 2003 and Waters and Vilches, 2001).

What should be made clear at the outset is that the findings of this study, in terms of the students' and teachers' views of the English language teaching in the FYP, the learners' language needs, and the recommended changes for the improvement of the programme, can almost be regarded as the finished task of the study. There is, however, the unfinished task of putting the findings and recommendation into practice. In other words, the implementation process of the study's findings and recommendations will continue after the study has finished.

As explained in 2. 5. 1. 2. 1. (p 70), it should also be mentioned that because of the up-down nature of the establishment to which the Colleges of Technology belong, a decision about change has to be passed down from the decision-makers at the top of administration hierarchy. Neither I nor the colleges' administrators or teachers can carry out any change to the existing practice unless such a change is approved and forwarded by these decision-makers. The implication of this for the present study is that the foundation-building (Waters and Vilches, 2001), in which the change-users are provided with initial background information about the change, has to be introduced at two levels of users: the decision makers level and end-users/teachers level. Realising it at the first level is necessary in order to have the study recommendations sent to the implementation domain. My position as an outsider to the decision-makers (see 2. 5. 3. p 77) urges me to hypothesise three response options to the proposed change:

1. Complete rejection
2. Complete acceptance
3. Acceptance with amendment

The current proposed change is, therefore, different from many of those discussed in the literature of NA for example, Holliday and Cooke's (1983) change in Universities in Syria , Waters and Vilches' (2001) ELT innovation project in the Philippines and Coleman's (1987 & 1988) project in Hasanuddin University, Indonesia where the decision-makers' agreement and approval was obtained prior to change design and planning.

To obtain the decision-makers' approval of the present change, there is a need for a post-investigation and pre-implementation stage in which efficient marketing of the proposed change takes place. What happens at this stage is equivalent to Waters and Vilches' (2001) foundation-building. It aims at building an understanding (Carless, 2001) among decision makers of the proposed change. What happens here is a negotiation of meaning between me, the change-developer, and the decision-makers "*so that a shared vision of the implications of the change can*

be developed" (Carless, 2001 p 265). The ways of introducing the suggestions to the decision-makers and the other bodies in the Colleges of Technology are shown in Table 51 p 263 below.

Once the proposed change has been accepted by the decision makers, the implementation process has to be moved to the implementation field where the end-users are located. The implementation needs of this field will be discussed throughout this chapter. What should be emphasised at this stage is that top-down promotion of change should not take the form of a forced change as proposed by the "Power-Coercive Strategies" (Chin and Benne, 1985 p 24)⁴. This study is confident that a change in forms of laws and legislation, which force people to change and act in certain way, is unproductive (Kennedy, 1987). What is needed from the decision-makers is support rather than power because support helps *"towards a positive attitude and increased likelihood of participation in the innovation on the part of teachers"* (Kennedy, 1987p 165).

Before embarking on the implementation needs, the proposed change in terms of the FYP underpinning principles: content, time and organization, will be discussed in the forthcoming section.

6. 3. Implications for the Underpinning Principles, Content, Time and Organisation of the FYP

This section is concerned with embedding the study findings about the learners' language needs in the language course, FYP. I argued in 4. 3. 2. (p 158 above) that the ultimate purpose of the FYP should be to teach students English in order to enable them to study in the technical departments. Consequently, this set a target for learners' needs analysis, which has been done through this study and has resulted in the design of Figure 23 (p 234 above) which summarises the five categories of the FYP learners' target language needs suggested by this study. Setting the purpose and identifying the needs as such is a dominant feature of ESP/EAP programmes. According to Widdowson, (1983) the learners' needs in ESP programmes are precisely identified and then the course is designed to cover those needs (Langroudi, 1999). As was pointed out in (5. 3. 4. 2. and 5. 4) that this study does not provide a comprehensive grammatical analysis which can be used for a detailed grammatical syllabus. It was also made clear that to provide such a syllabus further linguistic analysis is needed. The features presented in this study are, thus, only samples of the possible grammatical needs of the FYP students.

⁴ First published in 1961

I believe that students' needs would be achieved by input from both English for General Purposes (EGP) and English for Academic Purposes (EAP). Within EAP the focus should vary between English for General Academic Purposes (EGAP) and English for Specific Academic Purposes (ESAP). The former refers to the teaching of the language and skills that are common to all academic disciplines. The latter refers to the teaching of the language and skills specific to each discipline. So, EGAP is concerned with the general features of the academic context, the ESAP, on the other hand, focuses on rather specific features (Dudley-Evans and St John, 1998 and Kennedy & Bolitho, 1984).

The content suggested above, of course, should be graded according to its importance, difficulty and the priorities of the learners and learning process throughout the academic year. Thus, in my view, the FYP should be divided into three terms, in which content would be linked horizontally (the components of each term) and vertically (the components of all terms). Figure 24 (p 242 below) shows how the content of the three FYP terms should be linked and distributed.

The teaching objectives for these three terms can be derived from the list of language uses that was constructed in (Table 44 p 235) and (Figure 23 p 234). The objectives are the breaking down of programme goals into teachable and learnable components. They focus on what the learners learn (for example, students will be able to write a formal letter, but not on the activity associated with it e.g. students will write a formal letter (Graves, 2000).

The time allocated to these three terms needs to be within the current availability which is 38 weeks, the present length of FYP, as explained in chapter 1 (see p 18 above). The teaching hours per week should be within the present timing. In term 1 only one hour is added to the current 19 hours. The teaching hours per week decrease in terms 2 and 3. Nevertheless, flexibility should be considered. If decision-makers, teachers, etc. suggested an extension and/or reduction in the course duration or teaching hours per week it would be possible to do that. Yet, the delivery of the entire course objective should not be affected negatively by any major alteration in the course timing.

The 38 weeks currently available should be divided among the three terms, bearing in mind the different requirement of each term. Term 1, which is an entry term aiming at enhancing the learners' basic knowledge and skills to be able to enrol in the English for General Academic Purposes should be 8 weeks long. Term 2 should be the core of the programme aiming at

providing the students with general knowledge and the skills of academic English. This term should be 22 weeks long. Term 3 should develop the learners' academic knowledge and skills by focusing on the specific needs of either IT, Business and Engineering. This term should be 8 weeks long. Further explanation of the content and organisation of each of these three terms is presented in what follows.

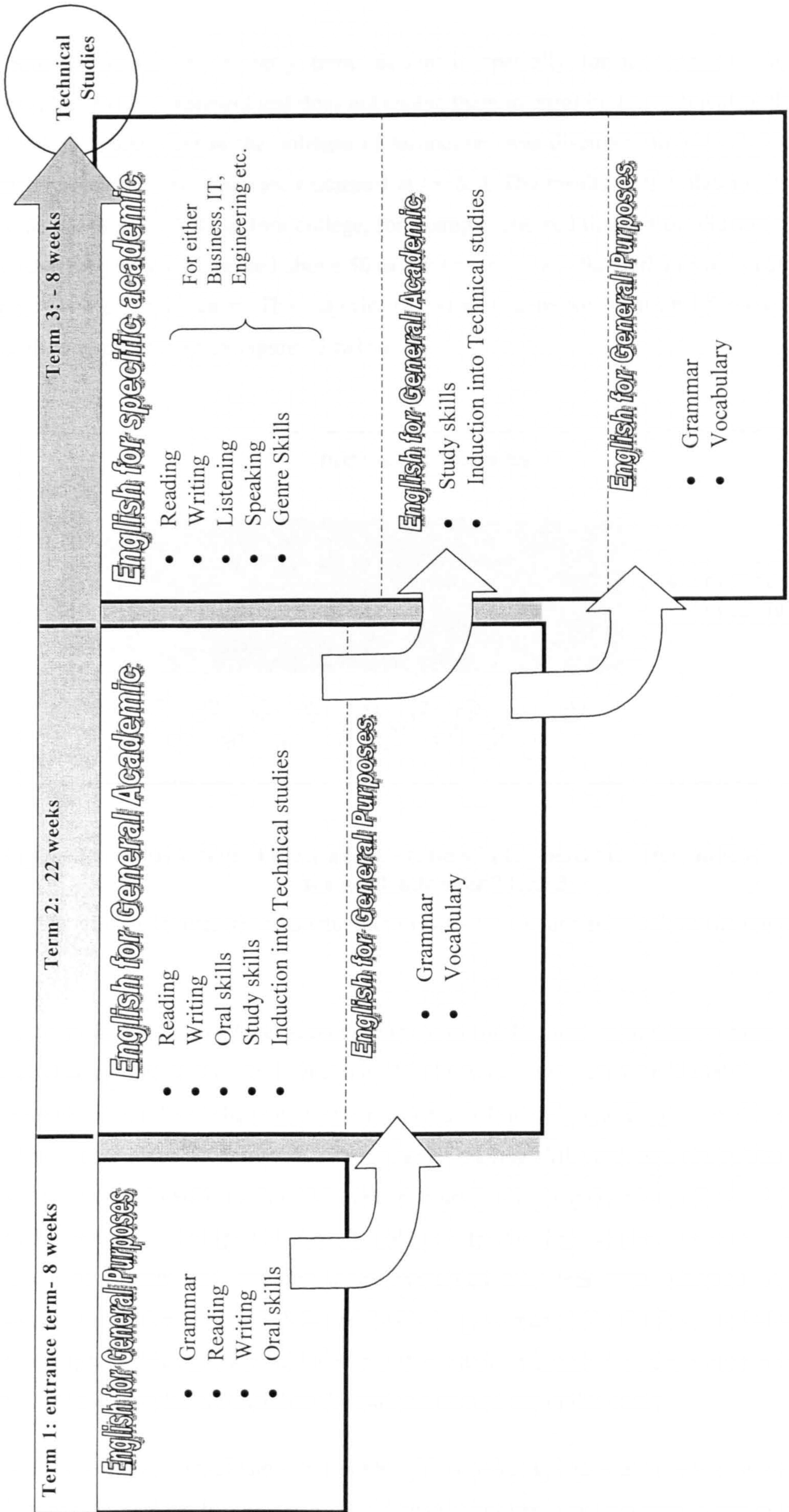


Figure 24: a proposal for the layout and content of the FYP.

Term 1: should be an entry term, designed especially for newcomers whose English according to the placement test does not enable them to enrol in the technical studies (the role of the placement test in the colleges of technology was discussed in 1. 2. 3. (p 17 above), suggestions for adjustment are discussed in (6. 6.). The results of the placement test for the academic year 2002-03 in Ibra college, for example, showed that out of 382 students who sat for that test, only 18% gained above 50 marks on a scale of 100 marks in which 50 was set as a criterion of proficiency. The majority (82%) gained between 10 and 50 marks. The full results are represented in Figure 25 below.

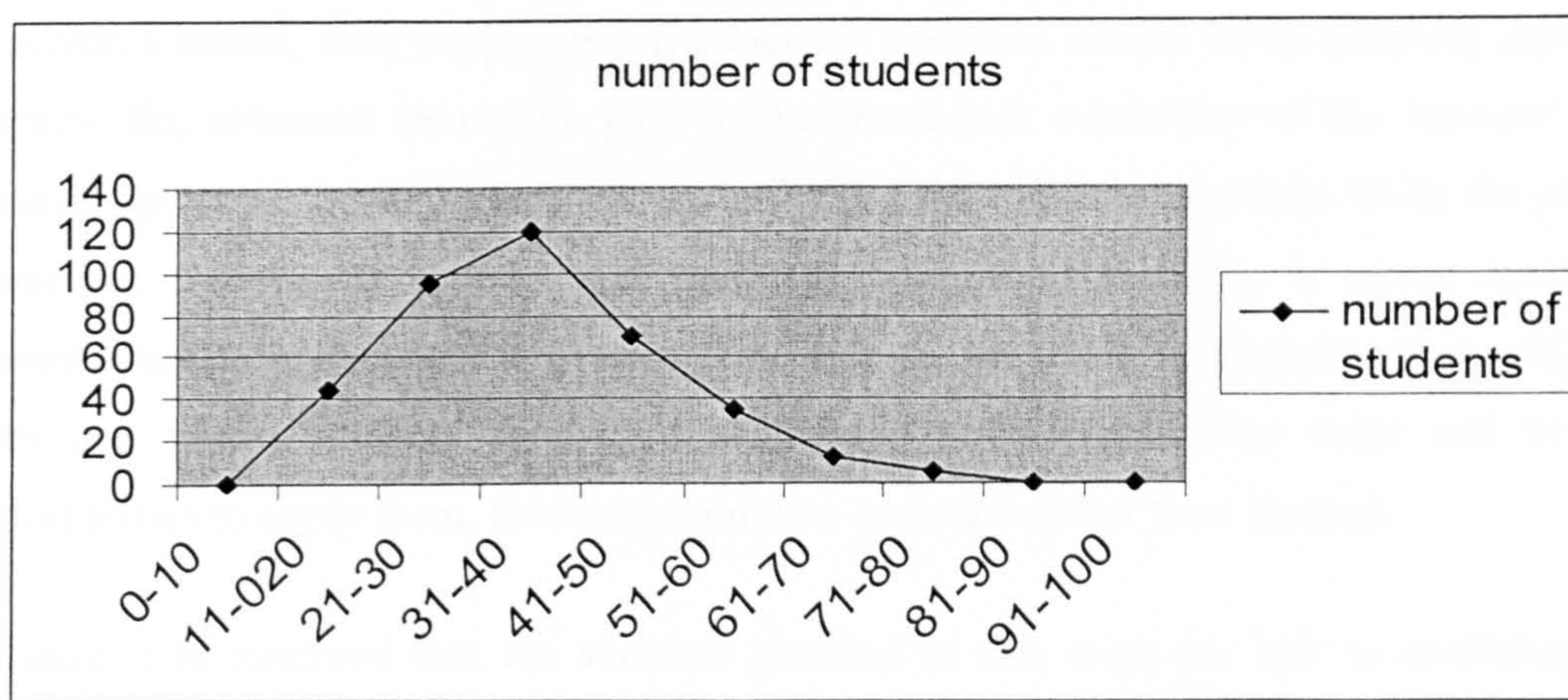


Figure 25: Distribution of the students' results in the placement test in Ibra college for the academic year 2002/03.

(The vertical figures show the number of students, the horizontal show the range of mark).

So, the main aim of this level should be to boost the learners' competency from its weakest level at entry time to the level which enables them to enrol in an actual EAP course. The aim set for this term should be achieved through English for General Purposes with an intensive and exclusive focus on grammar, writing skills, reading skills and oral skills. The objectives set for this term to achieve should be drawn from the language needs synthesised in Table 44 (p 235) and Figure 23 (p 234 above). Table 45 (p 245 below) shows the term objectives, balance of content and teaching hours associated with this term. Because the grammar analysis is selective, (see 5. 3. 4. 2. and 5. 4), the grammar section in Table 45 below contains only samples of the grammatical features that could be included in the syllabus for terms 1 and 2. These samples are based on the analysis carried out in this study.

The four components of the term content, in my view, are reasonable and effective for achieving the goal set for this term. Teaching of grammar is an important element in teaching

English to foreign learners (Celce-Murcia, 1991 and Stern, 1992). Its importance, however, is derived from the fact that grammar, along with lexis and phonology, constitutes resources for creating meaning and negotiating communication (Celce-Murcia, 1991). The grammar, in the FYP in general and Term 1 in particular, should be taught as a means for the achievement of proficiency rather than as an objective in its own right (Stern, 1992). In other words, the teaching of grammar should aim at enhancing the students' competency in the English structure system in order to use it communicatively in productive and receptive skills. I assume, that overt grammar teaching which explicitly identify and presents the rules of grammar (Thornbury, 1999), and encourages the students to use them practically (Wyse and Jones, 2001), is more likely to improve the learners' understanding and performance of structure. I would, also, suggest that the focus in this term should be on accuracy rather than fluency. So, attention should be paid to the immediate correction of the learners' errors. Because grammar is taught throughout the FYP, I think it is reasonable, while the course is advancing towards its end, to shift gradually from overt teaching to covert teaching of grammar and from accuracy to fluency. To conclude, the teaching of grammar should start in term one where students should be acquainted with grammatical rules and be given opportunities to apply them, focusing mainly on accuracy rather than fluency.

Because it is assumed that the students enrolled in this term are low in proficiency, the reading and writing component should provide them, at the beginning, with the basic skills, such as recognising letters and punctuation marks, associating spoken forms with their written representation, using printed/cursive forms of the alphabet, learning general spelling and punctuation rules, and using simple word, phrase and sentence forms.

The oral skills taught in this term should focus on the most general and highly required activities and functions delaying the more academic ones to the next two terms. According to the items listed in Table 44 (p 235 above), pair work in which students practise giving instructions etc. could be suggested as an oral input for this term.

Table 45: teaching objectives for FYP Term 1.

GRAMMAR (25%- 5 hours per week)	WRITING (30%- 6 hours per week)	READING (30% 6 hours per week)	ORAL SKILLS (15% 3 hours per week)
<p>At the end of this term students will be able to understand and use correctly in reading, writing and oral skills the required grammar features which might include for the verbal group, for example, the following:</p> <ul style="list-style-type: none"> • simple present tense to describe places, things etc. relevant to their general knowledge e.g. home town, village, friend etc • simple past tense to narrate past events relevant to their general knowledge e.g. school days, trip, summer holiday etc. • pronouns e.g. he, she, it, I, them, me etc. • conjunctions e.g. and, or, but etc • articles e.g. the, a, an • auxiliary verbs to be (is, are, am), • modal auxiliaries e.g. can, could. • yes/no questions 	<p>At the end of this term students will be able to understand and perform the following writing skills:</p> <ul style="list-style-type: none"> • construct simple sentences, within the range of the two tenses taught in this term • understand and write a one-paragraph piece of work (composition), including topic sentence, body sentences (3 to 5 sentences), and concluding sentence. • compose the following communicative functions <ul style="list-style-type: none"> • instructions • exemplifying • explaining • locating. <p>of places, people, objects, events etc. relevant to their general knowledge e.g. home town, village, friend etc.</p>	<p>At the end of this term students will be able to understand and perform the following reading skills:</p> <ul style="list-style-type: none"> • read a text for general idea (skimming). • read a text for specific information (scanning). <p>Using:</p> <ul style="list-style-type: none"> • textbooks • handouts ... <p>to understand the following communicative functions:</p> <ul style="list-style-type: none"> • instructions • exemplifying • explaining • locating. 	<p>At the end of this term students will be able to understand and perform the following oral skills:</p> <ul style="list-style-type: none"> • Involve in pair work/discussion to • give instructions, • give opinions • make suggestions.

As the learners progress towards and through the other terms the input develops so that they are exposed to and perform more demanding reading, writing and oral skills and work with texts which become more academic and technical.

Term 2: should be a more advanced course compared to term 1. The content should be mainly EGAP, but the EGP input embarked on in the first term should continue in this second term. So, students in this term would still have instruction in English grammar. The EGAP which was suggested for this term should focus on the four language skills (reading, writing, speaking and listening), and the study skills. The induction into the technical course which was pointed out in 4. 3. 8. p (173 above) as a need should start in this term. The term content and organisation is shown in (Figure 26) below.

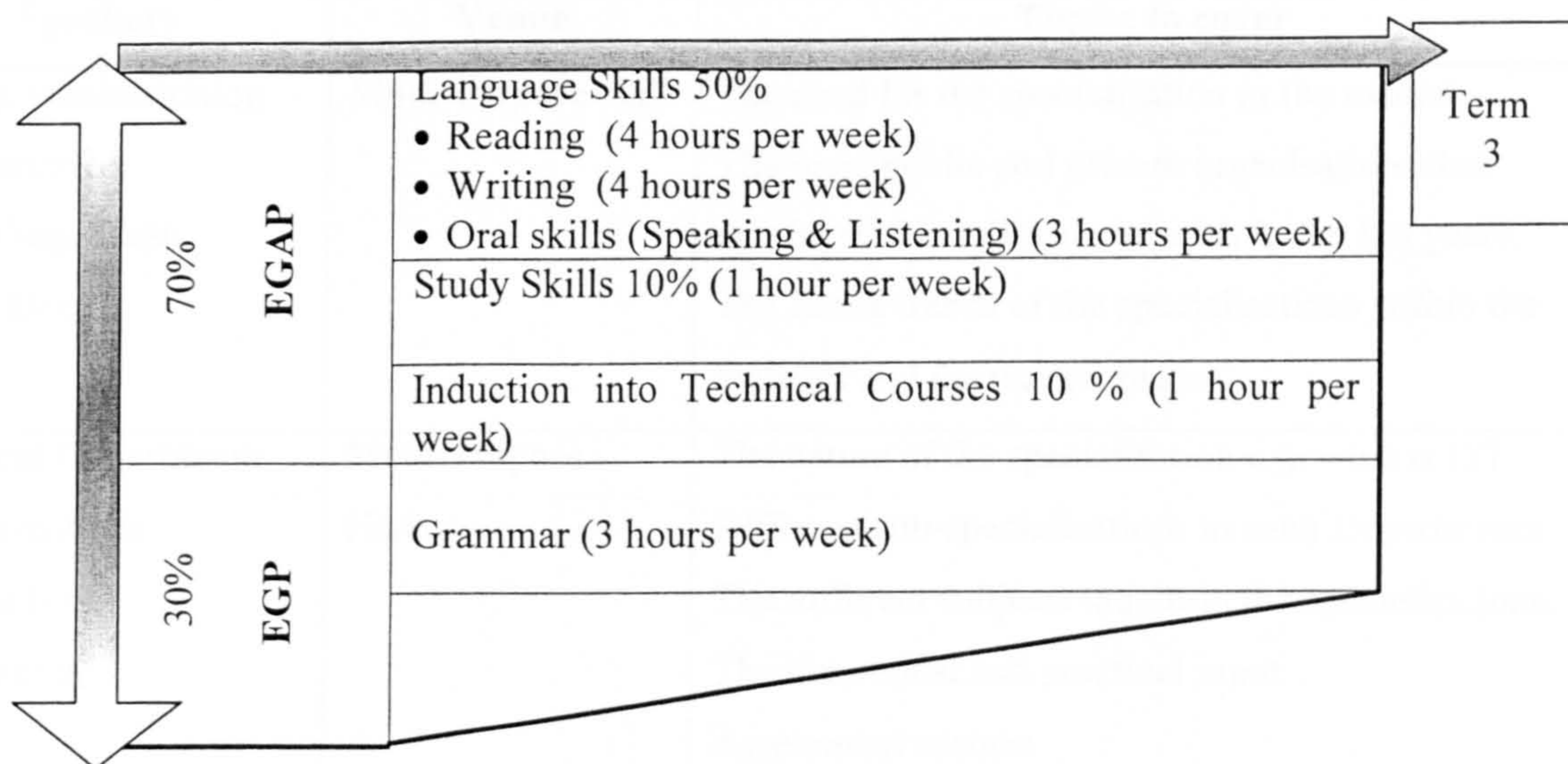


Figure 26: The distribution of the content of term 2.

The writing, reading, and oral components should add new skills, knowledge and texts. The writing, for example, should shift the focus from the basics for example, writing simple sentences, one paragraph composition which featured in term 1, into writing compound sentences and multi-paragraph essays. New grammatical elements should be taught in this term to complete teaching the grammatical objectives, which samples of were set in (Figure 23 p 234 above). As was explained earlier, because the grammar analysis presented in this study is partial rather than comprehensive, (see 5. 3. 4. 2. and 5. 4), the grammar section in Table 45 above and Table 47 below contains only samples of the grammatical features that can be included in the syllabus for terms 1 and 2. These samples are based on the analysis carried out in this study. The grammatical, writing, reading and oral objectives set for Term 1 should be brought here as subsidiary objectives aiming at linking the terms vertically and building students' knowledge and skills cumulatively. Because the writing and reading

components of the term contain more objectives compared to oral skills more teaching hours should be assigned to these subjects as shown in Figure 26 above.

Inducting students to the technical specialisations should be through a systematic programme which enables them to understand the nature of the subject studies, the level of English needed there and the type of learning activities the subject students perform. This should help the learners to make up their minds about which specialisation to join, which will help to stream them for the third term which focuses on English for Specific Academic Purposes. The following timetable is suggested to fulfil this target of systematic induction into the technical course.

Table 46: A proposed timetable for FYP students induction into the technical courses.

Speakers	Venue	Topics to cover
College administration representative e.g. College Dean, deputy Dean	Multi-Purpose Hall	The need for the specialisation in the market. The most public and private organisations that employed the college graduates in the last years. The future trends of the specialisations within the colleges and the market places
Technical Departments Representatives e.g. Heads of departments	Multi-Purpose Halls	The nature of the specialisation e.g. what is IT? Different sub-specialisations in each Departments. The different subjects taught in the specialisations. The theoretical and practical input Assessment system The language level the students are required to reach to be able to cope with the language demands of the course
The technical departments teachers and students	Technical departments	(FYP students visit in groups each of the technical departments) to: See the different facilities of each department See actual teaching and teaching contexts See examples of previous students' work e.g. reports, assignments, experiments etc. Speak with technical teachers and students about the programme they teach/study

Table 47: Course objectives for FYP Term 2.

Grammar	Writing	Reading	Oral skills				
<p>At the end of this term students will be able to understand and use correctly in reading, writing and oral skills the required grammar features which might include for the verbal group, for example, the following:</p> <ul style="list-style-type: none"> • future verbs (will/shall and going to), to speak/write about future plans, events • auxiliary verbs to do, to have • perfect present and past • wh questions • passive and negative voices • progressive present/past tense to talk about events in action in the present/past • adverbs of frequency e.g. always, usually, Never etc. • adverbs of degree e.g. quite, completely, very • quantifiers e.g. all, some, both, most • ordinal numbers e.g. first, second, third etc. • prepositions e.g. in, to, at, for, by etc 	<p>At the end of this term students will be able to understand and perform the following writing skills:</p> <ul style="list-style-type: none"> • construct compound sentences • write a multi-paragraph piece of work. • compose the following communicative functions. • defining • procedure • categorising • questioning <p>write the following written texts:</p> <ul style="list-style-type: none"> • summaries • quotations • translations 	<p>At the end of this term students will be able to understand and perform the following reading skills:</p> <ul style="list-style-type: none"> • read a text to understand all or most of its information (intensive reading) • use dictionary to look up meanings of unknown words and choose from the different meanings given in a dictionary the ones that fit the context in which the words are used. • using the following types of genres e.g. formal letters, exam paper. • to understand the following communicative functions: <table border="1"> <tr> <td>referencing (backward/forward reference)</td> <td>procedure</td> </tr> <tr> <td>defining</td> <td>categorising</td> </tr> </table>	referencing (backward/forward reference)	procedure	defining	categorising	<p>At the end of this term students will be able to understand and perform the following oral skills:</p> <ul style="list-style-type: none"> • correcting mistaken information • questioning • illustrating/demonstrating • instructing • naming
referencing (backward/forward reference)	procedure						
defining	categorising						
<p>subsidiary objectives brought forward from Term 1</p>							
<ul style="list-style-type: none"> • simple present/ Simple past tense • pronouns • conjunctions • articles • auxiliary verbs to be • modal auxiliaries e.g. can, could. • yes/no questions 	<ul style="list-style-type: none"> • construct simple sentences • construct a one-paragraph piece of work including topic sentence, body sentences, concluding sentence. • compose: instructions, exampling, explaining, locating 	<ul style="list-style-type: none"> • skimming • scanning • using: textbooks, handouts ... • to understand: instructions, exampling, explaining, locating. 	<ul style="list-style-type: none"> • involve in pair work/discussion to • give instructions, • give opinions and • make suggestions. 				

Term 3: should be English for Specific Academic Purposes (ESAP). It should aim basically to fulfil the three main target situation needs: technical vocabulary, technical genre and studying skills, that were discussed in 5. 3. 5. (p 228 above). This should bring the students closer to the English of each technical specialisation (IT, Business and Engineering) by providing them with the technical English they need in those specialisations. Therefore, the students should have decided which technical specialisation to join and streaming them according to their choices should have taken place at the end of term 2.

Although the main focus of this term should be on ESAP, the EGP and EGAP embarked on in terms 1 and 2 respectively should continue here with less emphasis. The grammatical, writing, reading and oral objectives set for these previous two terms should be brought forward as subsidiary objectives aiming at linking the terms horizontally and building up the students knowledge and skills cumulatively. The distribution of these types of content is represented in Figure 27 below. The ESAP component should be fulfilled by using the genres and vocabulary specific to each specialisation to achieve the terms' objectives that are presented in Table 48 (p 250 below) These objectives are derived from the language uses that were synthesised in Table 44 (p 235 above) and classified in Figure 23 (p 234 above).

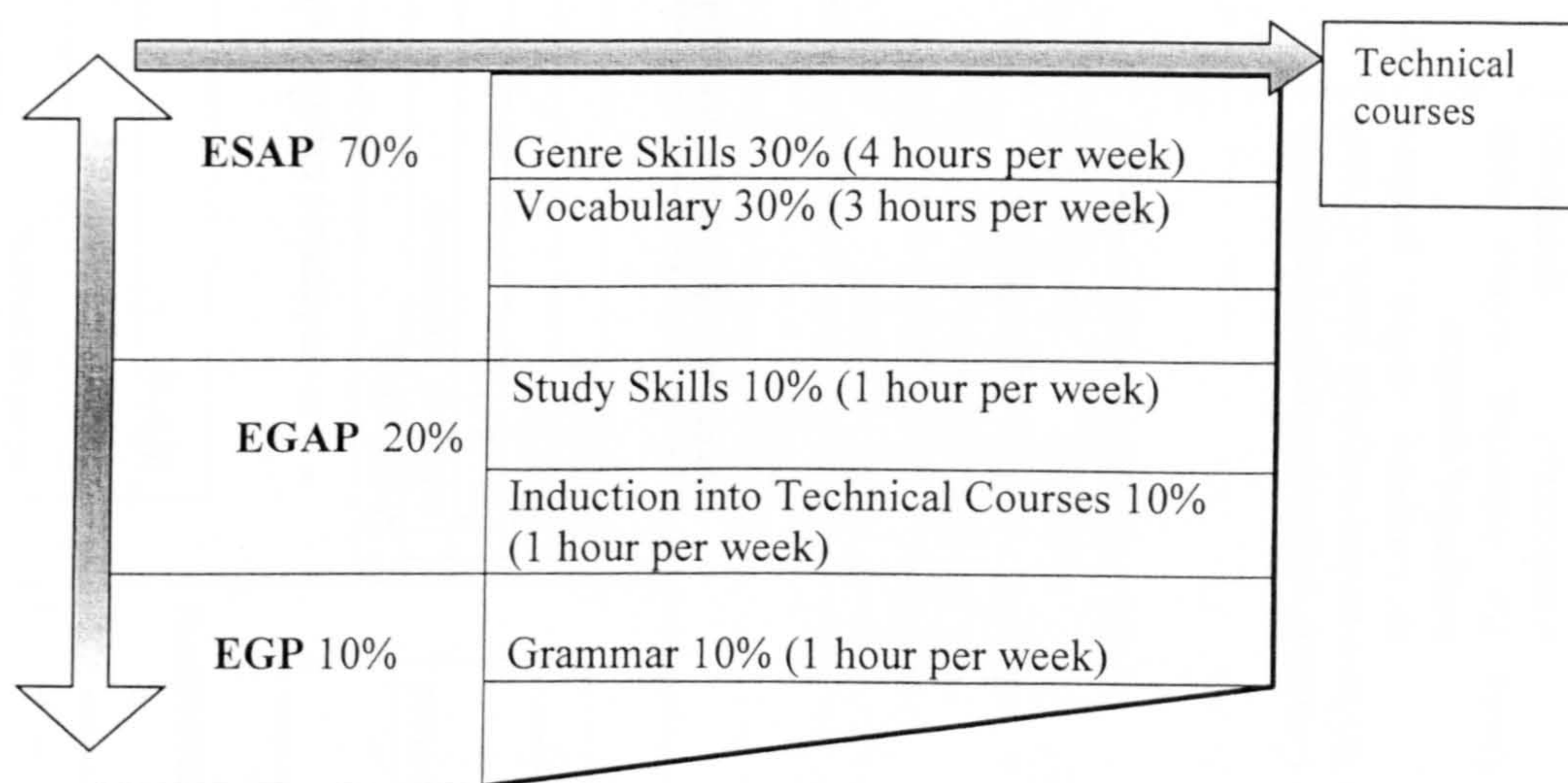


Figure 27: The distribution of the content for term 3.

Table 48: Course objectives for FYP Term 3.

Writing	Reading	Oral skills																																
<p>At the end of this term students will be able to understand and perform/compose the following writing texts:</p> <ul style="list-style-type: none"> • Compose the following written texts: <table border="1"> <tr><td>Reports</td><td>Application letters</td></tr> <tr><td>Plans</td><td>Assignments</td></tr> <tr><td>Forms</td><td>homework</td></tr> <tr><td>Formal letters</td><td></td></tr> </table> • which contain the following communicative functions: <table border="1"> <tr><td>listing of objectives</td><td>narrating</td></tr> <tr><td>contrasting</td><td>Establishing information</td></tr> <tr><td>descriptions</td><td>concluding</td></tr> <tr><td>comparison</td><td>Rationalising</td></tr> </table> 	Reports	Application letters	Plans	Assignments	Forms	homework	Formal letters		listing of objectives	narrating	contrasting	Establishing information	descriptions	concluding	comparison	Rationalising	<p>At the end of this term students will be able to understand and perform the following reading skills:</p> <ul style="list-style-type: none"> • read aloud • using the following types of texts: <table border="1"> <tr><td>advertisements,</td><td>newspaper/magazine articles</td></tr> <tr><td>instructions/manuals</td><td>workshop activities</td></tr> <tr><td>WWW</td><td></td></tr> </table> • to understand the following communicative functions: <table border="1"> <tr><td>Questioning</td><td>Narrating</td></tr> <tr><td>Listing of objectives</td><td>Introducing</td></tr> <tr><td>Contrasting</td><td>Establishing background knowledge</td></tr> <tr><td>Describing</td><td>Concluding</td></tr> <tr><td>Comparing</td><td>Rationalising</td></tr> </table> 	advertisements,	newspaper/magazine articles	instructions/manuals	workshop activities	WWW		Questioning	Narrating	Listing of objectives	Introducing	Contrasting	Establishing background knowledge	Describing	Concluding	Comparing	Rationalising	<p>At the end of this term students will be able to understand and perform the following oral skills:</p> <ul style="list-style-type: none"> • illustrating/demonstrating • instructing • naming • responding • sequencing • describing • reasoning • concluding • defining
Reports	Application letters																																	
Plans	Assignments																																	
Forms	homework																																	
Formal letters																																		
listing of objectives	narrating																																	
contrasting	Establishing information																																	
descriptions	concluding																																	
comparison	Rationalising																																	
advertisements,	newspaper/magazine articles																																	
instructions/manuals	workshop activities																																	
WWW																																		
Questioning	Narrating																																	
Listing of objectives	Introducing																																	
Contrasting	Establishing background knowledge																																	
Describing	Concluding																																	
Comparing	Rationalising																																	
<p>subsidiary objectives brought forward from Term 1 & 2</p>																																		
Grammar	Writing	Reading																																
<ul style="list-style-type: none"> • simple present/ Simple past tense • pronouns • conjunctions • articles • auxiliary verbs to be • modal auxiliaries e.g. can, could • yes/no questions <table border="1"> <tr><td>Future verbs</td><td>Adverbs/ frequency</td></tr> <tr><td>Auxiliary to do</td><td>Adverbs/ degree</td></tr> <tr><td>Perfect present/past</td><td>Quantifiers</td></tr> <tr><td>Wh questions</td><td>Ordinal numbers</td></tr> <tr><td>Voices</td><td>prepositions</td></tr> <tr><td>passive/negative</td><td></td></tr> <tr><td>Progressive</td><td></td></tr> <tr><td>past/present</td><td></td></tr> </table>	Future verbs	Adverbs/ frequency	Auxiliary to do	Adverbs/ degree	Perfect present/past	Quantifiers	Wh questions	Ordinal numbers	Voices	prepositions	passive/negative		Progressive		past/present		<ul style="list-style-type: none"> • construct simple sentences • construct a one-paragraph piece of work including topic sentence, body sentences, concluding sentence. • to compose: Instructions, examping, explaining, locating <hr/> <ul style="list-style-type: none"> • Construct simple/compound sentences • Write a multi-paragraph piece of work to compose, define, produce, categorise, question • Using the following written texts: summaries, quotations, translations. 	<ul style="list-style-type: none"> • skimming • scanning • using: textbooks, handouts ... • to understand: instructions, examping, explaining, locating. <hr/> <ul style="list-style-type: none"> • intensive reading • using dictionary • read: formal letters, exam paper, to understand: intertextuality, defining, procedure and categorising. 																
Future verbs	Adverbs/ frequency																																	
Auxiliary to do	Adverbs/ degree																																	
Perfect present/past	Quantifiers																																	
Wh questions	Ordinal numbers																																	
Voices	prepositions																																	
passive/negative																																		
Progressive																																		
past/present																																		
		<p style="text-align: center;">Oral</p> <ul style="list-style-type: none"> • Involve in pair work/discussion to • give instructions, • give opinions and • make suggestions. <hr/> <ul style="list-style-type: none"> • correcting mistaken information • questioning • illustrating/demonstrating • instructing • naming 																																

To conclude, this section was based on the argument that the FYP purpose should be to provide the FYP candidates with the required English skills and knowledge in order to be able to study in the Technical specialisations through the medium of English. I used the students' language needs that were identified in 5. 4 (p 230 above) to rethink the underpinning principles of the FYP, its content and organisation. I concluded that the FYP should be a combination of EGP, EGAP and ESAP and should be divided into three terms linked horizontally (the component of each term) and vertically (the components of all terms). A draft set of course objectives for each term were presented in this section.

6. 4. Implications for Material and Methodology

The fulfilment of the learners' needs by English for General Purposes, English for General and Specific Academic Purposes and Genre Approach requires consideration of methodology and material development.

What should be asserted at the outset about the methodology is that there is no difference in the requirement of both English for General Purposes and English for Academic Purposes for sound and good teaching methodology and techniques. In addition, both English for General Purposes and English for Academic Purposes can borrow suitable and effective language teaching and learning from each other. Hutchinson and Waters (1987 p 142) write "*there is nothing specific about ESP methodology. The principles which underlie good ESP methodology are the same as those that underlie sound ELT methodology in general. Similarly, at the level of techniques the ESP teacher can learn a lot from General English practice. The teacher who has come to ESP from General English need not think that a whole new methodology must be learnt. The classroom skills and techniques acquired in General English teaching can be usefully employed in the ESP classroom*".

The peculiarity of the FYP, however, requires using certain teaching methodologies which fulfil varying requirements of the three terms of the programme. The students' generally basic competency in English at the time of joining the colleges may require putting the emphasis on the teacher rather than the students. The students' initial lack of vocabulary, ignorance of structure and unfamiliarity with the context may handicap their involvement in fully active language learning. In these circumstances a teacher-centred approach in which students are involved in less active-based instructions and more intellectual classroom methods (Hayes, 2003) is more appropriate.

As the students' underlying knowledge of language becomes more advanced as they move towards the second and third terms, the teaching should become more student-centred. The

student-centred approach engages students in active learning by implementing operational techniques which make learners more active and participating. This can be achieved by using classroom activities, graded homework, cooperative learning, tutoring, and teaching of learning strategies (Hayes, 2003).

The student-centred approach is advantageous for the FYP students. First, it links them with the life of technical studies where students have to work independently as individuals, pairs or groups to do assignments, workshop activities, homework, computer programming etc. Second, it creates a practising environment in which they put their knowledge of language and skills in action. This, by itself, is a response to the suggestions made by the interviewees which was presented in 4. 3. 8. (p 173 above). The interviewees suggested to “*provide the students with more opportunities to practice English either inside or outside the classroom*”. The student-centred approach helps learners to be more motivated, self-ensured and interested in learning English in the colleges. The interviewed students pointed out that they felt that the teaching of English in the FYP was traditional; the teacher talks, read from textbook, writes on the blackboard, the student listens, reads from his/her textbook and writes down notes. Research finds that students learn better through active involvement than through traditional lecturing and independent seat work (Hayes, 2003).

The content-based approach, particularly the theme-based model, might be the most suitable for achieving the purpose set for ESAP. This approach “*is designed to teach language and to meet the needs of students in future academic work and/or particular fields of study*” (Reid, 1993, p 92). The language class in the theme-based approach is structured around topics or themes borrowed from the subject course. The teaching/learning materials are usually teacher-generated, not determined by the course textbook (Briton, Snow and Wesche, 1989). Thus, the teaching material for this term has to be borrowed from each of the three technical areas. The introductory chapters in the technical textbooks that were discussed in 5. 3. 3. 1. (p 203 above) could serve this purpose, if adapted as necessary.

Material development is the creation, choosing, grading and organizing of the materials and activities in the form of units and lessons to carry out and achieve the goals and objectives of the course (Graves, 2000). It was explained in 1. 2. 3. 4. (p 20 above) that ready made teaching materials, e.g. textbooks, video/audio tapes, are selected from the stock in the books market for teaching English in the FYP. Such materials could be used, especially those items, which cannot be produced locally, such as video tapes, audio tapes, readers etc. Yet, besides teaching material from the market, teachers may need homemade teaching material, particularly for the teaching of English for Academic Purposes.

In deciding on the suitability of the technical material for language teaching I recommend the organisation of a committee consisting of FYP teachers (especially those who teach English to the Post-foundation students) and technical teachers representing the three main technical specialisations. The aim of this team should be to select the most representative technical material and combine them with tasks and activities which enable the students to comprehend the language value in them. Working in teams would save time and effort. Providing such material may be demanding in terms of time and work load for teachers. Thus, the setting up of a committee, whose responsibility (either part time or full time) is to sort out such a requirement, can ease that burden.

To sum up, good and suitable teaching methodology is required for the teaching of English in the FYP, whether it is EGP or EAP. I have argued that because of the students' limited competency at the time of joining the FYP, teachers may have to use a teacher-centred approach. This, however, should shift as the course develops and students move towards terms two and three, to a more student-centred approach which involves the learner more actively in the language learning and develops in him/her motivation, appreciation of language use, and self-esteem. A theme-based model where teaching and material is based around themes borrowed from the subject course should be used, particularly in term 3. The teaching material should be either homemade or commercial as required by the situation.

6. 5. Implications for Staff Development

This section aims at discussing how this study ensures that the College/FYP staff i.e. teachers, administrators, and technicians are supported to achieve the change objectives set in this research. If this target has to be achieved and the change has to be implemented successfully, change planning has to count from the early stages for the likely needs of personnel e.g. teachers, administrators, managers etc. who implement the change (Waters and Vilches, 2001). Teachers are the key players in the reform process of the TESOL curriculum (Riley, 2000). When the teachers' attitude is in agreement with the change, then they are likely to work towards its implementation. In contrast, if change does not match the teachers' existing attitudes they are likely to resist it. *"If teachers are to implement an innovation successfully, it is essential that they have a thorough understanding of the principles and practice of the proposed change"* (Carless, 2001 p 264).

Emphasising change planners' responsibility in making sure that the teachers are supported in achieving the changes objective, Wedell (2003, 447) writes *"if planners introduce English language curriculum change with stated objectives whose achievement requires teachers to*

make significant professional adjustments, it is clearly their responsibility to consider how teachers may be supported in making these”.

The ‘cultural shift’ (Wedell, 2003) implied by the changes that this study proposes includes teachers’ beliefs about the FYP purpose and underpinning principles and students’ target language needs. It also includes their practice in terms of classroom delivery, assessment, relationship with the technical departments and evaluation of the course. Grounding FYP teachers in the importance of these elements for the improvement of the FYP requires a more normative-reeducative strategy (Chin and Benne, 1985) which emphasises the active participation and involvement that is needed to support long-lasting change (Kennedy, 1987 and 1988). *“Underlying this strategy is the idea that people act according to the values and attitudes prevalent in a given society or culture, and that accepting change may require changes to deep-seated beliefs and behaviours”* (Kennedy, 1987 p 164). Long-lasting deep-seated understanding of the change could be achieved by involvement and training. Involvement is one way of building towards teachers’ ownership, which can be enhanced by consulting them at the different stages of change, planning, implementation and evaluation (Badley, 1986). Involvement also helps to reveal to teachers the extent to which the proposed change is in line with their self-interest (Chin and Benne, 1985) and likely to result in gain or losses (Kennedy, 1988).

Teachers’ and other bodies’ involvement in this study started at the data collection stage when teachers, Heads of Departments and students were consulted about the purpose of the programme and learners’ needs and were asked to evaluate the present practice and suggest ideas for improvement of the FYP. Teachers’ and other parties’ involvement will continue in the pre-implementation and implementation stages when committees for course design, material development, assessment, evaluation and interdepartmental correspondence will be organised, consisting of local teaching and administrative staff. Teaching and administrative staff involvement in the pre-implementation and implementation stages will help to cater for the foundation-building needs (Waters and Vilches, 2001) where the initial conceptions of the proposed change are established among the end-users within the Colleges of Technology. The teachers’/administrators’ involvement throughout the implementation process will help to cater for the potential-realization needs (Waters and Vilches, 2001) by monitoring and supporting the teachers’ actual implementation of the change.

An active and fruitful involvement of teachers, managers and administrators in the change implementation require qualification. Such qualification can be achieved by training. Training is a crucial issue in the preparation of teachers to implement a new curriculum (Carless,

2001). *"Any attempt to change the curriculum- whether indirectly through changes in teaching materials, for example, or more directly, through changes in teaching methods- implies a need for teacher learning, i.e. opportunities for teachers to learn about the rationale for the new form of teaching, to critically evaluate it , and understand how to get the best out of it"* (Waters and Vilches, 2001 p 137).

Although the colleges can do nothing about the pre-service training of the teachers, as they are educated in independent institutions especially, the expatriates, the colleges still can select for employment those teachers who have had training in teaching English as a foreign language (TEFL) and whose previous work includes teaching English for Academic Purposes in a technical setting.

In-service training should be provided for the on-job teachers. It should be ongoing and developmental (Carless, 2001). They, I think, need to be oriented in the topics listed in Table 49 below.

Table 49: The areas the FYP teachers need in-service training on.

The areas of orientation
Course Purpose
Course underpinning principles
Learners' needs
Course objectives
Course content and organisation
Assessment system
On-going evaluation
Establishment of cooperation between the FYP and the technical departments

Training staff on the above issues should cater, first, for their awareness needs. It should build up their initial knowledge and skills about the suggested change and provide them with opportunities to question and clarify it. After that, the training should also help the staff to develop ownership of the suggested change so that they take responsibility for implementing and keeping it. This two-objectives training corresponds to Waters and Vilches' (2001) matrix of the levels of needs and areas of needs (see 2. 5. 1. 2. 1. p 70).

Training teachers creates a need for training a cadre to facilitate training (Waters and Vilches, 2001). The in-service training can be provided by specialists in material design, course evaluation, assessment and methodology. The availability of a number of such specialists in the Colleges of Technology is a crucial factor in helping teachers implement the needed change. What I am stressing here is specialists who can provide long-term support, rather than providing support for the immediate implementation of changes suggested by this study only. Although within the current staff there are individuals who are able, to a certain degree, to provide opinions on such topics, I still think they are far from being specialists and experts. It should be remembered that one of the factors which may contribute to project failure is under-qualification of local staff (Holliday, 1994). So, the colleges should work to qualify their staff to be proficient in the stated sub-fields of ELT. To obtain such professionals, I suggest that from among the teaching staff the Ministry send abroad for higher education, especially PhD candidates, some should specialize in those fields mentioned above. For the fulfilment of immediate needs, such experts can be hired from nationally available institutes such as the SQU.

Regular workshops should be organised where teachers are provided with opportunities to express their opinions about the proposed changes, compare ideas about how best to work towards implementing them, and reach conclusions and agreements about areas of doubt and diversity.

Another factor with helping staff implement the change is the availability of FYP syllabus. The study found that there is no syllabus available in the FYP. Therefore, a syllabus should be designed. It should be made available as a public document (White, 1988) to both teachers and students. It should function as a trustful resource of information about the course purpose, philosophy, principles, methodology, assessment, material and evaluation. It should be regarded as "*a working document that should be used flexibly and appropriately to maximise the aims and processes of learning*" (Hutchinson and Waters, 1987 p 94). Making such a syllabus available to teachers (existing and newcomers) should also help them to begin to implement the suggested changes to the existing practice. It is a major trend in recent years to use information gathered by needs analysis in syllabus design (Nunan, 1988b). Therefore, the present study's findings about the learners' purpose of study and their language needs could act as a foundation for the required syllabus for the FYP.

Another area this study tries to consider in order to help FYP teachers put in practice the suggested changes successfully, is harmonizing the teaching in the FYP with the wider context of which it is a part i.e. the leaders and administrators of the technical colleges: the

decision-makers at the national and regional levels, college administrations and the staff of the technical departments. Establishing and sustaining such harmony is more likely to result in support for the change that is supposed to take place in the TESOL classroom (Wedell, 2002). To try to maximise such a common understanding, the following steps will be taken:

1. A report about the findings and recommendations of this study will be sent to all stakeholders including: the decision-makers and experts in the Ministry, the Deans of the five colleges, the Heads of the FYPs in the five colleges and the Heads of the technical departments in the five colleges.

2. Any decisions regarding the implementation of change should come from the top. This means that no changes should be made and no recommendations implemented unless agreed and supported by the decision-makers. This will help to guarantee financial and moral support and shared responsibility for success or failure.

3. (If 2 above does take place), systematic and organised coordination between the FYP and technical departments (in the five colleges) is recommended. Such links should help the FYP teachers understand the students' language needs in the technical departments, based on first hand information. It also should provide them with feedback about the FYP graduates' language abilities in order to use them for course evaluation and improvement in the years ahead. Such links would also provide the technical teachers with opportunities to develop an appreciation of the role of the FYP.

To conclude, the implications of implementing the suggested changes on the FYP teachers have been explored in this section. Teachers' beliefs and practice would be affected by this proposal for change. To ensure successful delivery of the suggested change by classroom teachers, they should first be persuaded about the importance and relevance of these changes to the programme and their beliefs and expectations. The whole technical environment would be affected by the change and it is hoped that support for the changes in the classroom would be forthcoming from the national decision-makers and local administration and academic staff.

6. 6. Implications for Assessment

This section aims at a discussion of the implications of implementing the findings of this study for the assessment system in the FYP. A description of the current assessment system was provided in 1. 2. 3. 3. p 19 above.

Although implementing the study findings requires a group of changes to be made to the present assessment system, some present features, for example, the variation in the assessment battery e.g. quizzes, assignments, exams should continue to be used in the new paradigm. Generally speaking, in the new assessment battery, the end-of-term exam remains the main assessment tool. Other tools including quizzes, homework, assignment and presentation should be used. These instruments are needed for two reasons. First, they encourage active learning in which learners put their knowledge and skills into practice. Second, because such instruments are used in the technical course, practicing them in the FYP fulfils a target need and helps learners become familiar with the genres and the skills needed to interact with them successfully. All in all, the assessment battery in the FYP would consist of three end-of-term exams (one for each term), quizzes, homework, assignments and presentations.

The overall learners' mark in the FYP should be distributed over these components and the three terms. The weight given to each term should be decided by its content and importance. For example, term 1 is a preparation term aiming at boosting learners' general competence in order to be able to enrol in an actual English of Academic Purposes course. This means that it is not the hard core of the FYP. So, its weight should be less compared to terms two and three. The assessment battery in this term should consist of assessed homework, quizzes and end of term exam. Term 2 is the hard core of the FYP in terms of its length and content. Its input includes: language system, language skills, academic skills and genre skills. Thus, the assessment battery should match this variation in the input by including quizzes, homework, assignment and an end-of-term examination. The third term should include quizzes, homework, assignment, presentation and an end-of-term exam. Table 50 below shows the suggested assessment system and the distribution of weight over its terms and components.

Table 50 : Assessment battery of FYP and the distribution of weight over components and terms.

Term	Assessment battery		Total weight
	tool	%	
Term 1	End of term exam	10%	15%
	Quizzes Homework	5%	
Term 2	End of term exam	35%	50%
	Quizzes Homework assignment	15%	
Term 3	End of term exam	20%	35%
	Quizzes Homework Assignment Presentations	15%	
Total			100%

The end-of-term exams should reflect the purpose and content of each term. They should examine the five areas covered in this term: grammar, writing skills, reading skills and oral skills. Grammar which is taught overtly in term one should be examined explicitly and implicitly, but implicitly in the other terms. Terms two and three exams should examine learners' academic skills by using academic based texts and tasks.

In addition, the end-of-term exams should aim at testing both learners' achievement and weakness. Because the three terms are linked vertically (the later terms are based on the earlier ones), it is possible for later terms to treat students' weaknesses brought forward to them from previous terms. This is true particularly for terms two and three. Therefore, I suggest that learners with weaknesses should not resit terms one and two. Learners with weaknesses in term one should pass to term two where they should be treated with special case by given more attention on their areas of weakness. The same should be done with learners passing from term two to term three. Learners with weakness at term three should not be allowed to pass to the vocational area unless their competence reaches the required level. This means that these students have to resit term three.

Moreover, the interpretation of the assessment results in the FYP should be criterion-reference based (Brown and Hudson, 2002, Popham, 1990 and Bachman, 1990). It was explained in 1.

2. 3. 3. (p 19 above) that a norm-referenced method (Popham, 1990 and Bachman, 1990) is currently applied. The learners' achievement is presented by numbers like 50, 53, 60 90 etc and spread along an ability continuum (Davies and associates, 1999) from 0 to 100, in which 50% of the total mark is considered a pass and less is considered failure. The disadvantage of this method is that it does not provide information about what the learner can do with the language. Shifting to criterion-reference means basing learners' achievement on the course teaching objectives and reporting the results in descriptive statements rather than the current numerical score system. This is important for the learners, the technical departments and the FYP itself. Assessment in FYP should provide a clear description of the students' achievement of FYP objectives. This can be done by applying a comprehensive and methodical band scale system. Band scale gives information about what a learner can do in the language rather than comparing his/her behaviour to that of others, as the current norm-referenced method does. In criterion-referenced assessment, a learner's ability is reported in can-do statements which describe the things that the learner can do in the target language, for example, can write a formal letter (Brindley, 2001).

Designing a criterion-reference based assessment system in which band-scale is used to describe the learners' achievement requires experts' help. If the needed experts are not available within the staff members of the FYP, they can be found in the nationally available institutes such as the SQU and the local British Council office. As a long-term need, at least one FYP member of staff should specialise in assessment, so he/she can provide prompt opinions whenever they are needed without wasting effort and money on hiring external experts.

The placement test should be reviewed to make it a valid tool for assessing the learners' competence in terms of the drafted objectives set for the FYP. The purpose of this test should be to find out whether the newcomers possess the language knowledge and skills needed in the technical course. If external help is needed to design such a test, professional institutes e.g. the SQU should be contacted.

To conclude, implementing the study findings in the FYP requires a new distribution of assessment tools and weight over the three suggested terms. Exam results should be interpreted using a band scale which provides information about what examinees can do with language.

6. 7. Implications for Evaluation

This section discusses the implication of the suggested change for the evaluation process. It tries to highlight the importance of evaluation for the successful delivery of the change and ways of applying evaluation fruitfully in the FYP. As suggested in chapter 3, evaluation has become an integral part of NA. Course design is no more seen as a linear process with before, during and after, but a continuous state of evaluation and action (Holliday, 1997). Such a type of evaluation works as built-in channels in the course to enable it to respond to developments (Hutchinson and Waters, 1987). Evaluation is a useful tool for providing all the practitioners, such as the syllabus designers, material writers, decision-makers and the teachers with feedback information about the success of the programme. As a result of the evaluation, decisions regarding the modifications to be introduced to the original plan can be made. Evaluation is also important to provide a judgment about the use of time and material resources in the implementation period and the management of the change. This means attention is also directed towards the activities of implementers in order to identify and encourage productive activities and eliminate and discourage the non-productive ones (Nicholls, 1983; Wolf, 1990, Rea-Dickins and Germaine, 1992).

The objectives of evaluation should be achieved by a continuous and multi-faceted process which takes place over a broad front. This does not mean that evaluation is applied on single occasions or at the end of implementation but it takes place concurrently with the change, starting from the beginning and continuing to the end. It should also be borne in mind that the suggested evaluation process is not a sequential but rather an overlapping and interrelating one. So there are no clear-cut distinction between one evaluation action and another. This type of evaluation should evaluate the course development and students' progress, proficiency and achievement (Graves, 2001) as proposed by the recommended change. In this regarded, questions such as: is the course effective? In what ways? What has it not been able to achieve/fulfil for the students needs? Have the students' improved their proficiency? Have they been able to function in English as stated by the proposed change?

So, I suggest that a committee responsible for the evaluation of the change should be elected, if the decision-makers have decided to implement the change recommended by this study. Heads of Departments should select for this committee the more capable and willing personnel in the FYP. It should include members from the FYP, the technical departments and the administration. These members should represent the five colleges of technology. This committee should start working alongside the other suggested committees, e.g. syllabus design, material selecting/writing, assessment planning etc. The job assigned to this committee during the planning and first year of implementation is shown in Table 51 (p 263

below). If it is decided to continue, the change with, the committee should continue its work. Annual meetings either at the end of the academic year or at the beginning of the new one should be organised to discuss the performance throughout that year in order to highlight the pitfalls to avoid them and the strengths to support them.

To conclude, a systematic, continuous and overlapping evaluation process has been discussed in this section. Such a process is seen as crucial for the successful implementation of the suggested change. The evaluation should be assigned to a committee which includes members representing both the FYP, administration and the technical courses in the five colleges of technology.

6. 8. A Proposed Timetable for the Implementation of the Change

I recommend that the suggested changes should aim to be implemented by the beginning of the academic year 2005-06. This would provide stakeholders enough time for digesting the change and preparing the scene in terms of finance, material and administrative regulations, for implementing it. Table 51 below shows the suggested steps for implementing this change and the requirement of each step for successful carrying out.

Table 51: Timetable for implementing the change.

Going home- the end of the first semester 2004-05 (Thinking Period)
<p>The following activities should take place in this period:</p> <ol style="list-style-type: none">1. Dispatching a report of the finding/recommendations of the study to: the Ministry, Deans of the five Colleges of Technology, Heads of Technical Departments and Heads of English Departments.2. the researcher to meet any of the above-mentioned parties to discuss the content of the report and provide explanations (as requested).3. Taking decisions as to whether to implement the recommendations or not?, Partial/whole implementation? In an experimental college/all colleges? How? etc.4. (If change is decided on), the following workgroups/committees e.g. material preparation committee, correspondence committee (with technical departments), evaluation committee, assessment committee, syllabus design committee etc should be decided on and tasks should be assigned to them, so that they commence functioning by the beginning of the new academic year (2004-05). The functions of these committees are explained below.
Academic year 2004-05 second semester and summer (Preparation Year)
<p>The chosen committees should start working on the tasks assigned to each of them in order to prepare for the implementation of the change by the new academic year (2005-06).</p> <ol style="list-style-type: none">1. A correspondence committee should organise meetings with the technical teachers and heads of departments to explain to them the new plan, listen to them, and collect information about their expectations and opinions. The information collected by this committee should be fed back to the other committees, particularly the material design and syllabus design committees2. The syllabus design committee should start working on designing the new syllabus. This should include establishing contacts with other committees, drawing up the first draft, and receiving feedback from other stakeholders e.g. teachers and head of departments. The syllabus should be ready for teachers use by the beginning of the next new year.3. The material design committee should start on selecting the teaching material, whether home-made or commercial, so by the beginning of the new year, all the needed teaching material should be ready.

4. The evaluation committee should start putting forward a plan for the change evaluation and collect information from the other committees to evaluate the preparation period.

5. The assessment committee should start working on the design of a band-scale report. This should include contacting any external agencies for help and consultations. It should also include introducing the new assessment system to the FYP teachers and educating them on how to use it.

6. Reports from each committee should be presented to decision-makers to decide whether to start the implementation of the new change by the beginning of next academic year and/or any other decisions.

**The academic year 2005-2006
(Change Implementation and Evaluation Year)**

The actual implementation of the change should take place by the beginning of this academic year.

The decided committees should work alongside the FYP teachers and the evaluation committee to evaluate the execution of the change in terms of methodology, material, assessment, learners' opinions, teachers' opinions etc. This collaborative work should aim at dealing promptly with any problems and inconvenienc.

An evaluation should take place at the end of each term to appraise the delivery of the change throughout that term and come up with solutions for pitfalls and recommendations for improvement.

An evaluation meeting should take place at the end of the year to discuss the implementation of the process throughout the year and to take the necessary decisions about it.

To conclude, stakeholders should be given enough time to understand the suggested change and prepare the contexts for implementing it. Therefore, any change should not take place before the academic year 2005-06. From now until then, the suggested committees should operate to educate the participants, collect the needed information and prepare the needed material for the actual implementation.

6. 9. Conclusion

This chapter has discussed the findings of the study. It has also discussed the implication of the implementation of the study findings for the FYP in particular and the Colleges of Technology in general. Thus, the requirements for a successful implementation of the study findings and the affect of these requirements on all the contexts have been discussed. The analysis tried to provide a systematic plan for the implementation process which uses time and resources as efficiently as possible and maximizes the likelihood of successful execution of the change.

The discussion focused on developing an FYP content based on the course objectives presented in Figure 23 (p 234 above). The students' needs should be fulfilled by input from both EGP and EGAP/ESAP. The content should be graded according to its importance, difficulty and the priorities of the learners and learning process throughout the academic year. Thus the FYP should be divided into three terms, in which content would be linked horizontally (the components of each term) and vertically (the components of all terms). Term 1 should be an entry term, designed especially for newcomers whose English according to the placement test does not enable them to enrol in the technical studies or the second or third term. The aim set for this term should be achieved through EGP with an intensive and exclusive focus on grammar, writing skills, reading skills and oral skills. Term 2 should be a more advanced course compared to term 1. Its content should be mainly EGAP, focusing on the four language skills and the study skills. The EGP input embarked on in the first term should continue in this second term. Inducting students to the technical specialisations should start in this term. Term 3 should basically be ESAP, aiming at fulfilling the three main target situation needs: technical vocabulary, technical genre and studying skills. The time allocated to these three terms could be within the current availability which is 38 weeks. As to the grammatical features identified in this study, they should be regarded as examples since the analysis was selective in terms of which items to analysis. The analysed items cannot be used for designing a detailed grammatical syllabus unless further linguistic analysis is conducted in order to examine the excluded items.

The first term should start with teacher-centred approach. As the students' underlying knowledge of language becomes more advanced as they move towards the second and third terms, the teaching should become more student-centred, engaging students in active learning by using operational techniques which make learners more active and participating. The content-based approach particularly the theme-based model should be the most suitable for achieving the purpose set for ESAP. The language class in the theme-based approach is structured around topics or themes borrowed from the subject course. Commercial teaching

material could be used in the FYP, especially those items which can not be produced locally, such as video tapes, audio tapes, readers etc. Yet, besides teaching material from the market, teachers may need home-made teaching materials, particularly for the teaching of ESAP.

The cultural shift this study proposes includes teachers' beliefs about the FYP purpose and the underpinning principles and students' target language needs. It also includes their practice in terms of classroom delivery, material handling, assessment, relationship with the technical departments and evaluation of the course. Grounding the FYP teachers in the importance of these elements for the improvement of the FYP could be achieved by training. In-service training should be provided for the on-job teachers. Workshops and meeting should be organised during the first years of the new FYP to provide teachers with opportunities to express their opinions and arrive at conclusions and agreements about areas of doubt and diversity.

The new assessment battery includes end of term exam, quizzes, homework, assignment and presentation. These instruments should encourage active learning in which learners put their knowledge and skills into practice. The overall learners' mark in the FYP should be distributed over these components and the three terms. The weight given to each term should be decided by the content and importance of the term. It was suggested that a criterion-reference based assessment system in which a band-scale is used to describe the learners' achievement should be used in the FYP. This may require hiring experts from nationally available institutes to help in designing such a system.

Evaluation is a necessary and useful tool for providing all the practitioners e.g. syllabus designers, material writers, decision-makers and the teachers with feedback information about the success of the programme and the needed alterations at each stage. The objectives of evaluation should be achieved by a continuous and multi-faceted process which would take place over broad front. An efficient evaluation process can be done by a specialised team selected from the FYP staff members, technical staff members and administration staff representing the five colleges. The suggested changes should be initiated by the beginning of the academic year 2005-06, providing stakeholders with enough time to digest the change and prepare the scene, in terms of finance, material and administrative regulations, for implementing it. A suggested timetable for change implementation is provided in this chapter.

Chapter 7: CONCLUSION

7. 1. Introduction

This chapter concludes the study. A summary of the study findings is shown in 7. 2. This includes presenting summaries about the recommendations the study has provided to help the FYP produce graduates capable of coping with the language demands of the technical course. Recommendations for further research are presented in 7. 3. My own reflection on the educational value of this research for myself is set forth in 7. 4. Finally, a conclusion pointing out the relevance of the study to language teaching is provided in 7. 5.

7. 2. Summary of the Study

The overall objective of this study was two fold. The first aim is to contribute to the current theory of needs analysis in English language education in general. The second aim is to analyse the language needs of the students of the Colleges of Technology, in Oman, in both the language course (FYP) and technical studies: IT, Business and Engineering in order to improve the FYP and make it more fit for the purpose. Since 1993 English has been the medium of instruction in the Colleges of Technology. Because the secondary graduates who join such colleges are not properly acquainted with English and lack the necessary language competence to pursue a technical course in which English is the medium of instruction, they have to enrol first in a full academic English programme, (FYP).

Claims about the low English competence of the graduates of the FYP have frequently been raised inside and outside the colleges. I believe that a lack of awareness of the learners' needs is one of the factors that has prevented the FYP from producing qualified students. Therefore, the current study tries to respond to such an important requirement. To achieve its target objective, the current study has devised six research questions:

1. What are the learners' purposes in studying English in the FYP as perceived by:
 - a) FYP students,
 - b) FYP teachers,
 - c) Technical Department students,
 - d) Technical Department teachers?

Are there significant differences in their perceptions? And ultimately what should the purpose of the FYP be?

2. What are the language needs of the students in the Technical Departments: IT, Business and Engineering?
3. To what extent do the language needs differ, if they differ at all, among the different technical studies i.e. Engineering, Information Technology and Business?
4. What are the common language generic skills and knowledge among the technical studies?
5. To what extent do the skills and sub-skills developed in the FYP, match those needed in the technical departments?
6. How can the findings of the above questions be linked back to the design of the FYP, in an ongoing way?

To answer the above questions, four qualitative and quantitative (Robson, 1993) research instruments were developed: questionnaires, interviews, classroom observations and genre analysis. The research methodology is built on the statement of the problem and the research questions and the theoretical discussion of needs analysis. Triangulation of data collection techniques and sources of information (Kelliny, 1994 and Robson, 1993) was carefully considered in this study. Six groups of participants (the FYP teachers and students and the technical teachers and students and Heads of English and technical departments) were approached for the purpose of data collection. Data were analysed qualitatively and quantitatively. Nominal scales were used to categorize the participants in terms of variables such as gender, college, department, year of study. Such data were used to provide background information about the participants. Second, the ordinal scales were used to rank data such as the purpose of learning English in the colleges and language uses. Three software programs were used in this analysis (SPSS) (Robson, 1993), Microsoft Excel and WordSmith (see chapter 3 for study methodology and chapters 4 and 5 for data analysis).

The study has come up with a number of findings, identified a group of needs, and provided some suggestions, which together answer the above research questions.

7.2.1. Stakeholders' dissatisfactions

The majority of stakeholders were dissatisfied with the outcome of the FYP. Their dissatisfaction included the learners' competence in language skills, vocabulary and grammar. This finding about stakeholders' dissatisfaction set the scene for this study.

7. 2. 2. Lack of Clarity about the Purpose, the Learners' Needs and the Course Principles

1. The stakeholders have four different perceptions of the FYP purpose, as follows:
 - a) To be able to study in the technical course
 - b) To use English in work
 - c) To pass exams
 - d) To use English in everyday life e.g. to use it in travelling abroad, to help younger brothers and sister learn English.
2. The students' language needs in the technical course are not clear to the FYP teachers and students and not documented.
3. The FYP teachers have different ideas about the underpinning principles of the FYP. They believe that the FYP:
 - a) is a communicative approach programme;
 - b) is General English;
 - c) is English for Specific Purposes;
 - d) is General English and Academic English at the same time;
 - e) was General English but later on was changed into ESP.

7. 2. 3. Needs Identification

The findings in 3 above helped the study to identify five present-situation and target-situation needs:

1. There is a need to identify clearly the learners' needs.
2. There is a need to identify clearly the teaching objectives for the FYP.
3. There is a need to identify the FYP underpinning principles.
4. There is a need for a written syllabus for the FYP.
5. There is a need to establish cooperative links between the FYP and the technical courses to help in:
 - a) understanding the learners' language needs in the technical specialisations,
 - b) inducting the FYP students to the technical studies,
 - c) providing the FYP students with the necessary technical English they need in their subject study.

7. 2. 4. Linking the Study Findings with the FYP

The study findings are linked with the FYP at the purpose level, learners' needs level, underpinning principles level, objectives level and content and organizational level.

1. The purpose level

I argued in 4. 3. 2. (p 158) that the FYP purpose should be 'teaching students English in order to make them able to study in the technical departments'. Identifying the FYP purpose as such should help, first, in identifying the FYP as a goal oriented/directed (Robinson, 1989 and 1999) programme which aims at fulfilling a pre-set aim which needs to be made explicit; second, it specifies an identifiable context in which its learners' language needs can be investigated and named. This, consequently, can help in designing an FYP syllabus, selecting appropriate teaching material, and using the most suitable teaching methodology. Thus, question 1 of the research questions has been answered.

2. The needs level

The study identified four areas of the learners' target situation needs which are:

- a) language systems e.g. vocabulary and grammar,
- b) language skills,
- c) genre skills,
- d) study skills.

The needs are similar at the macro level but differ at the micro level. A discussion of such needs was provided in 5. 4 (p 230 above). Thus, the research questions number 2, 3 and 4 have been answered. By identifying the needs as such, need number 1 in (7. 2. 3.) above has been fulfilled. This identification of the learners' needs should determine the underpinning principle of the course, its objectives, content and organisation.

3. The objectives level

The study identifies the learning objectives for the FYP and presented it in Figure 23 (p 234 above). These objectives are derived from the language uses that were investigated by means of the questionnaires, classroom observations, interviews and genre analysis. By identifying the objectives as such, need number 2 in (7. 2. 3.) above has been fulfilled.

4. The underpinning principles level

The study recommends that the students' needs should be met by a combined and steady input involving both English for General Purposes EGP and English for Academic Purposes EAP. Within the EAP the focus should vary between EGAP and ESAP. EGAP is concerned with the general features of the academic context. The ESAP, on the other hand, focuses on rather specific features (Dudley-Evans and St John, 1998 and Kennedy & Bolitho, 1984). So, need number 3 in (7. 2. 3) above has been identified.

5. The course content and organisation level

The study recommends that the FYP content should be graded according to its importance, difficulty and the priorities of the learners and the learning process throughout the academic year. Thus, the FYP should be divided into three terms, in which content is linked horizontally (the components of each term) and vertically (the components of all terms). Therefore, the FYP should be divided into three terms.

Term 1 should be around 8 weeks long. Its main aim should be to boost the learners' competency from its weakest level at the time of entry to the level which enables them to enrol in an actual EAP course. The aim set for this term should be achieved through the EGP with an intensive and exclusive focus on grammar, writing skills and reading skills

Term 2 should be around 22 weeks long. It should be an advanced course which accommodates term 1 graduates. The content should be mainly EGAP, though the EGP input embarked on in the first term should continue in this second term. The EGAP that is suggested for this term should focus on the four language skills (reading, writing, speaking and listening), and the study skills. Induction into the technical course should also start in this term.

Term 3 should be 8 weeks long. It should be an ESAP course which aims basically to fulfil three main target-situation needs (technical vocabulary, technical genre and studying skills). This should bring the students closer to the English of each technical specialisation (IT, Business and Engineering) by providing them with the technical English they need in those specialisations. Thus, the students should have decided which technical specialisation to join and streaming them according to their choices should have taken place at the end of term 2. Therefore, question number 6 in the research questions has been answered.

7.3. Recommendation for Further Research

Two areas of this study need to be further examined.

1. Genre Analysis of the Technical Specialisations

There is a need for an inclusive analysis of the technical genres. The analysis embarked on by this study, although providing an idea of the specifications of such a genre, remains neither exhaustive nor inclusive. The IT, Business and Engineering genres each need to be analysed thoroughly. Any further analysis should come up with more substantial conclusions about the vocabulary and communicative purpose of the technical genres. Researchers should also look at the most effective and suitable methods of teaching them.

2. The Teaching of Technical Vocabulary in the FYP

The learners' competency in technical vocabulary, as the study found out, is one of the troublesome areas in the technical departments. The technical teachers complain that the FYP graduates are not familiar with the common technical words. The FYP graduates complain that the FYP does not acquaint them with the technical words they may need in their technical studies. This study revealed that the lexis of the technical studies can be grouped into general words, general technical words and specific technical words. The study suggests that the teaching of technical vocabulary should take place in the third term of the FYP. Yet, further research should be conducted to find out more about the nature of each category e.g. frequency, application etc. More research should also find out about the most appropriate methodology of teaching vocabulary at this stage and the materials that can be used for this purpose.

7. 4. What I Have Learned from the Research Experience

What I have learned from this research is an intellectual and practical understanding of needs analysis and needs analysis research. This theoretical and practical work has provided me with the research skills that I lacked before undertaking the study. It may be worth mentioning that it is the first time I have undertaken a study of such a large scale in which multi-research tools are used and a large number of participants is involved. In sum, it has been a fruitful experience.

The field work made me, as a member of the teaching staff in the Colleges of Technology, conscious about my colleagues and students' views and perceptions of the importance of English language teaching/learning in the colleges and the role of the FYP. Although I spent a couple of years teaching in one of the technical colleges, I did not have a chance to speak with the teachers and students of my college about this point, as I have done it in this study. I now share with them and understand their awareness and expectations of the FYP and its products.

I also have developed an understanding of the implication of this study of needs analysis on the whole system in the colleges of technology. Because the study involved the FYP as a present situation analysis and the technical studies as a target situation analysis, its impact should cover both situations, involving all the stakeholders, e.g. administration, teachers, students and resources. I also have developed an understanding of the effect of needs analysis on the whole context, and how the entire environment should be prepared to ensure a successful implementation of the change.

7.5. Conclusion

The main result of this study is the identification of the English needs of students on vocational and technical courses. Its other main outcome is the use of this information to suggest ways of reshaping the existing FYP in order to make it more effective in graduating capable students to study through the medium of English. The study is of considerable relevance to needs analysis in TESOL in general and EAP in particular and provides an example of the way in which it is possible to prioritise the focus of a NA in a principled way after thorough consideration of the various approaches of NA.

The study proposes a definition for NA in which the new developments in the area are considered and argues that what is needed at this stage of NA history is a synthesis, which brings the different components of NA all together in a systematic way.

When reviewing the literature this study finds out that despite the relatively long history of NA and the increasing research and publication, at the level of articles and PhD theses, there is as yet not a single book on NA as such, apart from Munby's (1978) which is now almost dated. There is a need to bring the wide and scattered literature together and make it handy to the researcher, needs analyst, teacher, course developer and material designer who usually seek the information from a range of resources either published or unpublished.

This study argues, additionally, that the role of linguistic analysis in NA and course design should not be underestimated. While broadening the focus of NA to encompass besides language analysis other factors e.g. language learning needs, the Post-Munby Approaches/frameworks e.g. the skills and Strategies, Hutchinson and Waters' (1987) frameworks and Holliday's (1997) means analysis, tended to place language analysis in a wider context in relationship to a wider range of factors which necessarily diminished single minded focus on language which had been a feature of earlier approaches of NA. The importance of language analysis has recently been reemphasised in Business English (Nelson, 2000 and Dudley-Evans and St John, 1998), Systemic Functional Linguistic (SFL), Exchange Structure Analysis, Genre Analysis Approaches, Critical Discourse Analysis and Contrastive Rhetoric (Coffin, 2001 and Burns, 2001) and practiced in some NA academic research e.g. Qotabah (1990), Al-Otaiby (1994) and Rémache (1992).

This study has also been carried out by an insider researcher. In the third world projects discussed in, for example, Holliday (1994), Holliday and Cooke (1982), Waters and Vilches (2001), Wedell (2000 & 2003), and Coleman (1996) the analyst is typically an outsider. In such case the analysts' task, then, is two-faceted: familiarisation (Waters and Vilches, 2001) in

order to become adequately accustomed to the project/innovation environment/situation; and the actual task of course development. As an insider analyst/researcher on the other hand, I had gained familiarisation during my pre-research work in the job institution in question. I was also familiar with what Holliday (1994) called 'deep action phenomena', the obscure, deep, real life characteristics of the target institution that a foreigner needs to know about and that can not be obtained by formal, official, surface action level. This helped me to consider implementation issues in some detail. The essence of Waters and Vilches' (2001) foundation-building and Potential-realising components of implementation model has to be introduced in this study at two levels: the decision-makers level, and teachers level.

Methodologically, the study takes a "data triangulation approach", finding that a questionnaire can only provide reported results from the teachers and students thus providing data that is useful but not conclusive unless backed up by data from the other sources, especially classroom observation and corpus analysis which provide first-hand information about what actually goes on in classrooms. The study also found that the interviews are not suitable tools for providing detailed information about learners' needs but provide useful background information about their beliefs, views and wants. More thorough and specific detail should be obtained by other tools, such as text analysis, observation and questionnaires, if designed properly to achieve such a purpose. There is, therefore, a need to triangulate tools and resources in NA in order to obtain a picture of both linguistic needs and likely implementation needs.

The triangulation of genre analysis in this study with other needs analysis tools is innovative. Using genre analysis to determine the learners' needs is not new in ELT, particularly in ESP/AEP programmes, yet triangulating it with other tools has not often happened. Genre analysis is used in this study to triangulate with other analytical tools, particularly the questionnaire and classroom observation. The syllabus suggested as a result of such an analysis is not a pure genre-based syllabus, but genre is embedded in an ESP/EAP syllabus to meet the various needs of the technical students. In addition, the study analyses a wide range of genres including assignment, homework, quizzes, exam papers, handouts, and textbooks across 3 technical specialisations. This makes this genre analysis wider in scope and focus than many previous studies which focused either on one field of study, for example Cheung (1993) on Business; Howe (1990 & 1993) on Law; Salahshoor (1999) on TESOL. The genre analytical methodology applied in this study has enabled me to achieve a deep comprehension of the nature of the technical genres that are used in the three specialisations in the colleges of technology in Oman.

Finally, the study provides a methodological framework for analysing learners' academic needs for the purpose of constructing learning objectives and suggesting content, material and methodology for Foundation English Language Programmes. The language needs identified by this study may not only be of value to the English teaching in the Colleges of Technology in Oman, but the methodology applied by this study could be generalizable to similar contexts around the globe.

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APPENDICES

- Appendix 1: (Technical Students' Questionnaire)
- Appendix 2: (Technical Teachers' Questionnaire)
- Appendix 3: (classroom Observation Sheet)
 - Appendix 4: (Interviews Questions and Transcript)
 - Appendix 5: List of Technical Documents analysed in this study)
 - Appendix 6: Participants Responses to the Questionnaire
 - Appendix 7: Timetable of Data Collection
 - Appendix 8: Transcript of Classroom Talk
- Questionnaires and Interviews that Contain Questions about Motivation and Learning Strategies
- A Copy of Students assignment

Appendix 1 (Technical Students' Questionnaire)

Dear students,

My name is Suleiman Al-Husseini. I am doing a Ph.D. study in teaching of English at the University of Leeds, UK. Your cooperation with me is very important for the completion of this study. This questionnaire looks for some information about your use of English in the technical studies. The information you provide me will be used for research purpose only and will be treated with complete confidentiality. Therefore, you do not need to write your name. Please answer all the questions.

The questionnaire consists of 3 sections, as follow:

Section 1 aims at collecting personal information about you, (not including your name).

Section 2 aims at collecting information about your purpose of studying English in the FYP.

Section 3 aims at understanding the language uses (activities, skills and sub-skills) that you perform in your technical course.

Yours Sincerely
Suleiman Al-Husseini

Section 1. Would you please provide the following information by putting a tick (✓) in the appropriate box:

College: Muscat Ibra

Specialisation: Engineering IT Business

Year (in specialisation): one two

Gender: Girl Boy

Did you do the Foundation Year Programme (FYP)? Yes No

(if you did not do the FYP please do not complete this questionnaire).

Section 2. Why do you think that you need to learn English in the Foundation Year Programme (FYP)?

A. In the box below you have 4 purposes for learning English in FYP, please rank these purposes from 1 to 4 according to their importance to you (1 is more important 4 is less important).

The purpose	Your ranking
To use English in everyday life, for example: speaking with friend, speak with my family, listen to radio, write personal letters.	
To be able to study in my academic course, for example: read books, write report, speak understand my teacher	
To use English in my work after graduation, for example: Pass work interview, communicate with boss and work mate in English	
To pass the exam so that I can join the technical study	

B. If you have any other purposes use the box below to add them:

Your Purpose	Your ranking

Section 3. A. How often do you do the following in English in your academic study?

In the table you have 38 language uses and five options (very often, often, sometimes, rarely and never) please, put a tick (✓) under the option which is right to you for each language use

No	The language use	Very often	Often	Sometimes	Rarely	Never
1	Reading instructions or manuals of machines, equipment.					
2	Reading newspaper and magazine articles.					
3	Reading academic email messages that I receive from my teachers					
4	Reading formal letters with general content					
5	Reading advertisements					
6	Reading a text to understand all or most of the information in it					
7	Reading a text to understand the main information only in it					
8	Searching the www for technical information.					
9	Using dictionary to find meanings of new words					
10	Reading aloud					
11	Reading/finding information from charts, timetables, graphs and forms					
12	Reading a text to get a general idea of the content.					
13	Filling out forms					
14	Writing plans for my assignments and projects					
15	Writing summaries of text or my assignments					
16	Taking notes from lectures					
17	Translating from Arabic to English either some phrases or whole texts.					
18	Writing formal letters with general content					
19	Writing a questionnaire					
20	Writing and designing images (e.g. tables, graphs, charts) to use in presentations or written reports					
21	Writing curriculum vitae (CV)					

No	The language use	Very often	Often	Sometimes	Rarely	Never
22	Explaining in writing the content of graphs, tables, charts, diagrams					
23	Writing a one-paragraph piece of work					
24	Writing a multi-paragraph piece of work					
25	Quoting from books or articles to support my ideas when writing assignments, reports etc.					
26	Writing a report about some thing that I did in the past for example a visit to a company, project					
27	Writing a report about my future plans					
28	Taking part in a group work/discussion					
29	Telling some one orally how to use an object or carry out a process					
30	Listening to lecture					
31	Listening to radio & Watching television to get information for my study					
32	Interviewed by some one					
33	Giving my opinion on a specific or general subject					
34	Giving short talks or presentations about certain topics, objects or plan of my work.					
35	Writing a letter of application.					
36	Participating in a live e-mail discussion					
37	Correcting mistaken information orally to their classmates or teachers.					
38	Making suggestions to classmate or teachers					

B. Add in the spaces below any activity that you do in your study and not mentioned in the list above.

That is the end of the questionnaire. Thank you for your co-operation.

Appendix 2 (Technical Teachers questionnaire)

Dear colleague,

My name is Suleiman Al-Husseini. I am a lecturer of English at Ibra Technical College. At the moment I am doing a Ph.D. study in TESOL at the University of Leeds, UK. The title of my study is "An Analysis of the English Needs of Omani Students on Vocational and Technical Courses With Implications for the Design of Foundation Year English Language Programmes". Your cooperation with me is very important for the completion of this study. This questionnaire looks for some information about the students in the Technical Colleges, and the use of English in the technical specializations in the colleges. The information you provide me will be used for research purpose only and will be treated with complete confidentiality. Therefore, you do not need to write your name. Please answer all the questions.

The questionnaire consists of 3 sections, as follow:

Section 1 aims at collecting information about your college/department.

Section 2 aims at collecting information about the purpose your students study English form in the Foundation Year Programme (FYP).

Section 3 aims at understanding the language uses (activities, skills and sub-skills) the technical students perform in their subject course.

Yours Sincerely
Suleiman Al-Husseini

Section 1. Would you please put a tick in a box below as applicable to you?

College: Muscat Ibra

Department: BusinessIT Engineering

Section 2. Why do you think that your students need to learn English in the Foundation Year Programme (FYP)?

A. In the box below you have 4 purposes of learning English in FYP, please rank these purposes from 1 to 4 according to their importance to your students from your perception (1 is more important 4 is less important).

The purpose	Your ranking
To use English in everyday life, for example: speak with their friends, speak with their families, listen to radio, write personal letters.	
To be able to study in their academic course, for example: read books, write report, speak understand my teacher	
To use English in their work after graduation, for example: Pass work interview, communicate with boss and work mate in English	
To pass the exam so that they can join the technical study	

C. If you have any other purposes use the box below to add them (this is an optional question):

No.	Your Purpose	Your ranking

Section 3. A. How often do you require your students to do the following English language uses in their academic study?

In the table you have 38 language uses and five options (very often, often, sometimes, rarely and never) please, put a tick (✓) under the option which is right to you for each language use.

No	The language use	Very often	Often	Sometimes	Rarely	Never
1	Reading instructions or manuals of machines, equipment.					
2	Reading newspaper and magazine articles.					
3	Reading academic email messages that they receive from their teachers					
4	Reading formal letters with general content					
5	Reading advertisements					
6	Reading a text to understand all or most of the information in it					
7	Reading a text to understand the main information only in it					
8	Searching the www for technical information.					
9	Using dictionary to find meanings of new words					
10	Reading aloud					
11	Reading/finding information from charts, timetables, graphs and forms					
12	Reading a text to get a general idea of the content.					
13	Filling out forms					
14	Writing plans for their assignments and projects					
15	Writing summaries of texts or my assignments					
16	Taking notes from lectures					
17	Translating from Arabic to English either some phrases or whole texts.					
18	Writing formal letters with general content					
19	Writing a questionnaire					
20	Writing and designing images (e.g. tables, graphs, charts) to use in presentations or written reports					
21	Writing curriculum vitae (CV)					

No	The language use	Very often	Often	Sometimes	Rarely	Never
22	Explaining in writing the content of graphs, tables, charts, diagrams					
23	Writing a one-paragraph piece of work					
24	Writing a multi- paragraph piece of work					
25	Quoting from books or articles to support their ideas when writing assignments, reports etc.					
26	Writing a report about some thing that they did in the past, for example a visit to a company, project					
27	Writing a report about their future plans					
28	Taking part in a group work/discussion					
29	Telling some one orally how to use an object or carry out a process					
30	Listening to lecture					
31	Listening to radio & Watching television to get information for their study					
32	Interviewed by some one					
33	Giving their opinion on a specific or general subject					
34	Giving short talks or presentations about certain topics, objects or plan of their work.					
35	Writing a letter of application.					
36	Participating in a live e-mail discussion					
37	Correcting mistaken information orally to their classmates or teachers.					
38	Making suggestions to classmate or teachers					

B. Add in the spaces below any activity that you do in your study and not mentioned in the list above (this is optional).

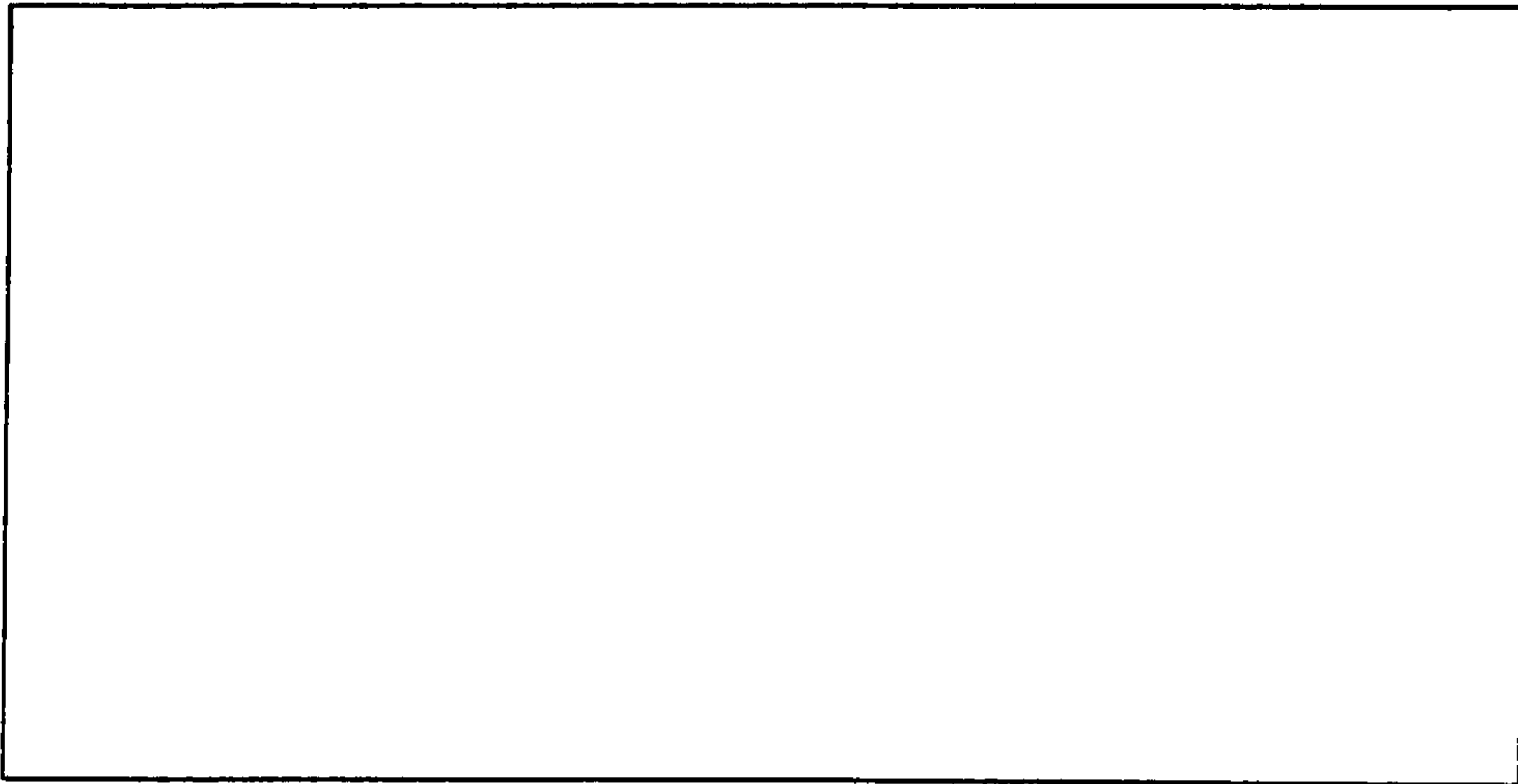
That is the end of the questionnaire. Thank you for your co-operation.

Appendix 3. (Sheet for Classroom Observation)

Classroom Observation Sheet

College: Muscat Ibra
Programme: Engineering ITBusiness
Module:
Date:
Time:

Classroom Layout



Activity 1:

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Appendix 4. Interviews

A. FYP Head of Departments

1. What are the objectives of the programme?
How were they set?
By whom?
2. Have/has these/this objective(s) changed throughout the history of FYP?
3. What are the actual language needs of the FYP students?
Are they clear to the programme developers, EL teachers and the students?
4. Are there are any skills that are common to the technical departments (key/core skills)?
(If yes) what are they?
Why do you regard them so?
5. Do you regard the present practice in the FYP sufficient to meet the language needs of the learners?
What are the gaps?
What are the possible causes of dissatisfaction?
6. What do you suggest for the improvement of the FYP? Do you think that there are any difficulties stop these improvements?
7. Would you like to add any farther information relevant to the aim of this interview?

B. Heads of Technical Departments

1. What do you think is the purpose of FYP?
2. To what extent do you consider knowledge of English is importance for academic performance in your department?
3. What are the actual language needs of the your students? for example do you ask your students to take notes, write reports, design questionnaires...etc?
4. Are these needs clear to your students?
5. Do you think the language competence of the FYP graduates is sufficient enough to enable them to cope with the challenges of the language demands of the technical studies? Are there any common areas of weakness?
6. If it were not sufficient, what the deficiencies?
7. How can such deficiencies be overcome?
8. Would you like to add any farther information relevant to the aim of this interview?

C. FYP Students

1. Do you think that you need to study in the FYP?
2. Do you think that the technical studies need a high level of English?
3. What usually do you study in the classroom FYP?
4. Do you think that you need every thing that you are studying now in the FYP in your technical studies next year? Which skills do you think are most important?
5. How do you know about the language demands of the technical studies?
6. What language uses that the FYP does not provide you with and you think that you need to?

D. Technical Students

4. Did you study in the FYP? So, was it important to do it?
5. Do you think that studying in the FYP helps you now to study in the technical departments? How helpful is it?
6. Are there any area/s of language uses that you wish was/were given more attention in the FYP?
7. (Year 2 students) are there any language uses that you do in this year similar to what you did in your first year?

E. FYP Teachers:

1. What is the purpose of the FYP?
2. What are the principles that underpinning the FYP?
3. Do you feel that you need to the language needs of the students in their technical studies? If so, how should it be done? Do you have any suggestions?
4. To what extent do you think that what the FYP provides students with skills meet what they actually need in the technical studies?
5. How could the FYP be improved in order to be more sufficient to fulfil its purpose? 5. What are the barriers that may handicap such improvements?
6. Are there any comments that you would like to talk about?

F. Technical Teachers:

1. What is the purpose of the FYP?
2. How important is English for the students to succeed in your subject?
3. Do you think that the FYP graduates are able to cope with the language demands of the subject that you teach? Are there any common areas of weakness you have experienced among the students graduating from FYP?
4. What are the areas of language competence that need improvement so that the FYP can be fed with?
5. Do you teach according to the subject syllabus or different from it?

G. Transcript of Interviews:

Business Students

Purpose of Studying English

S 1. We don't use English in every day live

The importance of the FYP

S 1: I have not benefited a good deal from the FYP, so it is not that important for me, and I can manage in the technical department with out it.

S 2: It is the opposite, the FYP is most important, but that depend on the method of teaching.

If the teacher use methods of teaching which help the students to recognize the importance and difficulty of the programme the students will benefited a lot, but if the teacher's method is not quite clear, the student may think the programme is not important.

S 3: I think, in fact, that there are useful subjects in the FYP, but also there are subjects which we never use in the specialization studies. For example, do never used grammar in our technical studies, while the computer is very important to use in our academic studies.

S 4: I think the English programme is very good and very important, but that depends on the teachers method of teaching.

S 5: I agree with (No. 4), the importance of programme depends on the teaching.

S : studying English is important for studying in the academic programme

Areas of dissatisfaction, and suggestions for improvements:

S 1: I suggest that the student in the first semester and/or the first have of the second semester of FYP studies the English only and after that he/she studies the other subjects like computer and math, because studying in the technical departments require good level of English. So, without good English the students can not do well in the technical studies. Besides, the students are given in the FYP ESP English according to their areas of technical studies, so when they move to the technical studies next year they will find the language of the specialization is easier for them and don't have to spend a great deal of time with the language.

S 2: I suggest that in the first semester the students study general English but in the second he/she is given introduction to the different specialization in the college so that the student knows in advance what to study.

S 3: in the first academic year, we spend a lot of time finding the meanings of new words a matter which consumes our time and effort. I think the FY should familiarize us with such words, so when we move to the technical department we are ready and familiar with such words.

S 3: my point is about the English teachers, they lack the proper methods teaching.

S 4: They are good in English, but they do not have to method of transferring the information to the student.

S 5: yes, I agree, they regard us as if we were of their level, not as beginners in English.

S 6: I think FY was a time wasting, what I benefited was very few, I had a lot of wasted time

S 7: even when teachers give us homework they do not ask us later on about it. In the classroom we do not participate, no one asks us to participate- this made us lazy and not enthusiastic to study

S 8: we need more focus on the listening skills

S 9: we need more focus on speaking.

S 10: we need more assignments, because assignments encourage us to work independently.

We did only 1 assignment in the FYP, it was simple and not challenging

Language uses in the technical studies

S 1: in year 1 speaking is the most used skill in the technical studies

S 2: in year 2 also speaking is the most used skill-

S 3: writing is also used very much like in exams, assignments,

S 4: one assignment in Administration requires the students to write a letter of application and CV

S 5: we do homework, quizzes and written exams

S 6: now we have no practical classes. Practical class for example visiting establishments and working in them for a month, less or more would help us to put our knowledge in action

S 7: practical class would help us when we apply for a job, because we are asked about projects that we have done

Year 2 students (the difference between year 1 and 2)

S 1: we acquired a lot of English in year 1, it is more than what we acquired in the FYP. And because of our low level in English we were not able to do well in the first academic year, our results in year two is better than year 1 because of the development of English.

S 2: we agree, we gained English in the first academic year more than the foundation year.

Because the study in the technical department is more interested than the FY, the teachers are also encourage us to learn

S 3: the method of assessment also encourage us to learn English, we learn new words, translate

Engineering Students Interview Importance of English:

S1: the study in technical department is in English, so the studying English in the FYP is important for that reason.

S2: English is an international language so we need it to communicate with foreign people, who work in local companies

Areas of dissatisfaction and suggestions for improvements:

S 1: the FYP did not provide us with enough exposure to using English. we need more opportunity to speak English, with the stuff in the collage

S 2: the FYP did not familiarized us with the English used in the technical studies, we would be better if students are grouped according to their specialization in the technical departments and taught the language of that specialization.

S 3: some books, for example "Work in Progress" are not interesting and challenging. This type of books is not useful. We find the more interesting books, e.g. "Headway" more challenging and interesting, so we learned more from them.

S 1: In the FYP we were not given assignments, presentation

S 3: the focus in the FYP is on grammar. In year 1 we have a lot of difficulty with vocabulary. We face a lot of new words.

S 2: the teaching in the FYP is theoretical. That means the teacher does every thing using the blackboard. The student doing nothing, just listening to the teacher explaining.

S 4: Provide the students more opportunities to speak in the classroom. For example, the student prepare a topic to speak about in front of the classroom, and discuss it with the other students. This helps the student to talk correctly.

S 5: more writing chances for example writing formal letters, CV, stories

Language uses:

S 1: writing reports

S 2: Doing assignments

S 3: Search the web for information

S 1: Use dictionary to find meanings of new books

S 2: Read references and books for information for reports and assignments

Difference between 1 and Year 2 students

S 2: the English in year 2 more Engineering (more specific to the Engineering), in year 1 it was more general

IT Students Interview

Areas of dissatisfaction and suggestions for improvements:

S 1: One important thing is missing in the foundation programme, that is a project where the student collect information and presents it in front of the class so a discussion with the class is performed with that student about his/her topic. I friends of mine who study in the SQU where this type of learning is applied benefited a lot and improved their English in a shorter time compared to us.

S 2: this method make us obtain new information, new words and new skills

S 3: we need more chances for practicing English in the foundation

Language uses in IT:

S 1: Presentations

S 2: searching in books and references about new information

S 3: reading

S 2: translation

S 3: speaking

S 2: writing

Business Teachers

Importance of English for studying Business

T 1: it is very important for our specialization, for many reasons, 1. Students have to understand lecture, since the medium of instruction is English,

T 2: a student without Knowledge of English can not participate at all in the classroom

T 3: the medium of teaching is English, this include teacher's speaking inside the classroom, the textbooks, the references in the library

T 4: we don't recommend anything in Arabic or in other languages

T 5: foundation Year is important for us

The Purpose of FYP

T 1: as the students come from schools without the required level of English, vocabulary, IT skills, mathematic skills, so the FP may bring them to the college level.

T 2: students need to be based with some ESP knowledge as well

Suggestions

T 1: foundation alone is not enough, the students need to be taught English even when they move to the academic department, while with us they need for example, English for Business. The students are unable to speak in English... so students need to taught to perform public speaking like presentation or short speeches- I myself took this subject when I was a student at SQU and found it very useful.

T 2: in some subjects we do require the students to do presentations as part of a project, and there are marks allocated to that.

T 3: the FYP graduates are very weak in English to mach the demands of the Business studies, there for we have to simplify everything to them.

T 4: out of 100 I find 2 students only with reasonably good English. the majority of students when are asked to read a paragraph, or when are asked to rephrase things they are totally unable to do so.

T 5: some of the students are very weak, you can take exceptional cases as good students

T 3: students even unable to express simple expression in English for example "it is too hot today"

T 3: they normally come and ask me "teacher are you finish" for "teacher have you finished"

T 1: away from academic subjects, they never talk in English about genera event for emaple, now the world Cub, because they don't have the ability to do so

T 5: I haven't heard them using expression like "sorry", "thank you", "excuse me"

Common areas of weakness

T 1: reading skill is very poor

T 2: rephrasing skill is also very poor

T 3: they are also weak in spelling

T 4: sentence structure

T 2: speaking, they don't speak at all specially boys, sometimes some girls, but still they are shy

T 3: they don't speak because I think they are weak in English rather than any another reason

T 5: I teach them now "Business correspondence" and I asked them to produce an application letter, which they will used to apply for a job when they graduate, so far I have received nearly 40 letters, and not even 1 single letter is 100% correct. So they not have the mechanism to keep writing good sentences. So they can not write 4 lines one paragraph without correcting for them. So the foundation should teach our students how to teach reasonable structured paragraph. For example, this is one practical lesson which I have spent nearly more than 6 hours on how to write a simple letter addressing it to your general manager, this is 3 or

4 lines full of mistakes and if you want to value that letter you give it a minus. This is only an example. And this student is one of the reasonable students.

T 3: lack of confidence is very much common

Language use:

T 2: Take notes

T 4: Make summaries

IT teachers Interview

Importance of English

T 1: in mathematics reasonably middle level of English with well define vocabularies, in the abstract area he needs middle language, but in the application requires little more, because applying the abstract ideas in very essential...

T 2: in math I don't think they need much English. It is only the terms like subtraction, addition, etc. that they need to know. They have to choose the English terms, so instead of saying (من) and (ص) in Arabic they say in English X and Y. so, I think students shouldn't have that much problem in math. They did a lot of math in Arabic, so they now take the same thing just English terms. So, all the thing they have to do is to convert these terms from Arabic to English.

T 3: in vocational studies English is the medium of teaching, assignments, exams, lectures, references, textbooks, are all in English. you might need sometimes if the students can not get the idea in English, then you have no choice than explaining to him/her in Arabic, but this happens in limited cases. But all the resources, textbooks, lectures, exams, assignments are 100% in English.

Suggestions for FYP graduates

T 1: the students I am teaching are acceptably good for the demands of subjects.

T 2: the students we have got now- the two groups- are all advance students, they are OK.

T 3: in Maths we don't have any problem with them, in Computing the problems come in the theoretical classes not in the practical ones.

T 4: there are two different types of courses with in IT, we have practical course and theoretical course... in the practical they don not need the language that much, they need to practice with compute, but in theoretical there is a lot of talking so it needs advance language... I taught both types practical and theoretical I found in practical they understand more and even they do better... more than theoretical... but most of them work very hard to understand the lecture. In general practical is easier to understand than theoretical because there is very much talking, there is no much reading in English

T 4: before students go to technical departments for example Engineering, Business, IT, we like to have a department meeting where the English teachers ask us what are the things we like the students to have...

T 2:... no need to cover all... the technical terminology...

T 4: the students are not serious in learning English, the college put all resources available to them but they do not put any effort to learn, a few of them are interested but if you talk in general they are not very interested,

T 4: students are interested in learning IT more than in learning English...but because the students who come to IT do like coming to IT

T 1: try to introduce some vocational areas in the FY, at the end of last semester for example can introduce some technical and vocational English, English for Business and IT covering some ideas of vocational areas, at least the students when they come to the vocational area can understand some thing...

T 2: at the advance level at least every one should know where he is going: business, or IT or Engineering and starts to take some courses of technical English about what he is going to take

T 5: they should have reasonable teaching interaction...at least within the class they must speak... they are all coming from non-English medium so they should have the chance to speak English here in the college... creating an English atmosphere only in the classroom

Purpose of FYP:

T 2: because all students come Arabic medium ... we teach the technical subjects only in English...so naturally they should have a strong base in foundation.

T 1: our students come from public schools and their English language is not very good, so they really need to improve their language and that's why I think foundation is very important to improve their language. Besides to take some skills like math and computer because most of the students didn't take computer in their schools.

T 5: the FYP should help students to overcome the problem of shyness to speak in the class

Areas of common weakness;

T 3: they are weak in writing, wrong wording of sentences

T 5: sentence structure is the common weakness

T 1: the students depend on the English teachers a lot. If they were given any written work they run to the English teachers and let them do it for them... they don't like to depend on themselves most of the times they go to the English department... It is not a bad idea to get help, but give help in some few hard words not to translate a whole paragraph.

T 2: even in lectures when they are asked questions they do not answer, but whether they don't want to answer in English, or they are shy or they are afraid to be wrong or to miss pronunciation ... we all have this problem with all the students... some of them when encouraged do speak

Engineering Teachers

Importance of English

T 1: it is very important. when a student joins the department should be able to communicate in English... can speak and can write

T 2: if you take any technical subject we follow books written by English authors, at most of the technology people think it English based technology. Because the whole technology by or large is with the English people. So, English is very important, English is the world level communication.

T 3: the need of English varies between courses within the technical departments. Some courses do not need more English like mathematics which can be read by numbers, some courses students find very difficult to understand... the problem is that some subjects sometimes need more English than the others

T 4: We teach in English, Examination English students also take down notes in English, any assignment, report, project they submit is in English

Evaluation of FYP and Recommendation for improvement

T 1: the problem we have is that the students who come from the foundation are totally very weak in English

T 2: their English is not as good as we want

T 1: very clear that I think being not good in English is a barrier to understanding and knowledge. In order to learn something they have first to learn English. They can understand in English but they can not write in English, they can not talk in English.

T 3: Unless students practice outside that means communicating with the teachers in English, communicating themselves in English communicating with other technicians with other administrative staff as far as possible that can improve their English. What is happening right now is that in classroom they are learning English outside the classroom they are communicating in Arabic among themselves with administrative staff. So what they learn inside the classroom when they come out of it they forget it.

T 4: the problem is that students want to speak in English but they feel a little shy

T 5: if it is possible to put the students' results in a type of ranks like IELTS

Purpose of FYP:

T 5: we understand that its graduate should write in a very good way, should understand what we are telling, what the lecturer is giving him, should be able to answer questions

T 3: in Engineering all the subjects are highly advanced we need students who are able to understand English more, who are able to write in English also, we need good students, but unfortunately what is happening in the foundation you find sometimes they are get pass like that, all the students who are pushed come to Engineering. And sometimes the students who can speak reasonably good English go to IT, sometimes go to Business. And the students who can not even speak a single word come Engineering.

Common areas of weakness

T 1: writing is very bad.

T 2: writing is a common weakness for all

T 3: writing sentences

T 4: suppose you tell them what is your name? What is your father name? They can not give the correct answer

T 5: it is grammar plus writing

T 2: they new very few words

T 5: some of the students which is common I have seen do not differentiate between /p/ and /b/

T 1: in my group there are a few students 2 or 3 in the class are very bad, they do not understand a single word they do not speak a single work. The majority of case they are writing just what you are writing on board, and they are struggling to speak some words also.

T 3: reading also,

T 4: when we give a hand out they can not read it...in Engineering mainly some theory subjects understanding them depends on the class notes,

T 2: all our top students are good in English. Because them come with some good back ground (of English from the FYP) and

T 3: the top students in Engineering are very good.

T 3: ...Engineering has many scientific words

T 5: when students come to Engineering, whether they study electrical or electronical or mechanical certain important terminology should be clear. They come to Engineering but they study a lot of terminology for example what is voltage, what is character, what is frequency, what is electrical energy the foundation should introduce these words. These words should be clear to the students in the foundation itself so when they come to Engineering they have known about what is this and what is that

T 2: the students are very bad in communication

T 1: students writing is sometimes unreadable, that makes a problem for us, it should be readable. There hand writing is very bad even you can not differentiate between c and e or between a and d.

T 4: and the spelling is also very very bad.

FYP Teachers Interview

Purpose of the FYP:

T 1: according to my experience which is only 1 year in this department, I feel that there is a very big problem with the students in school. Students who come from the schools to this college have So there should be some ... the administration of this college and those who are responsible for the college. The students come from the schools with certain knowledge of English and this knowledge is very humble. We teach them certain rules, there are certain textbooks, methods... the teachers here are adapting certain methods... these methods do not suit the capabilities of the students who come from schools. So, this is from our point of view to be considered the most important comment. The students come from schools with very humble knowledge of English...

T 2: regarding myself we should not care about the background, what ever the background is we should not care. It is Our responsibility to qualify them to upgrade their level, because there is a placement test for example at the beginning of the foundation year, and in the face of that we put them in different levels. So, the problem actually there is a grate problem which is there is no clear goals for each level, and even in each department you can see that many teachers don't have clear goal about ea ch level, for example, elementary, intermediate and advance. What sould we do in elementary level, as teachers? And what is required from students in this level? And what about the intermediate level ? and the same thing in the advance level, there are some goals which should be applied in every level.

T 3: the main goal for teaching students English for one full year is to improve their English...

T 4: improve their English to what extent?! There must be some limit. Do we want them to be professionals for example?

T 5: We need to improve their English because these students go to the labor market, which means that they must work and this work actually asks these students that they should know at least certain level of English to meet the needs of the labor market. So Mr... said these students come to the college with lets say humble knowledge, you accept them, after the placement test, so we should first of all, revise the problems and see the gabs of placement test first and decide whether the textbooks suit the needs of the college and then after graduation or after finishing the college they need to go to the labor market. This why we teach them English.

T 6: there must be some other goals besides this... to appreciate other cultures...

T 7: to enable them to do well in their specializations... but the most important is that these students need to work and your are asking for Omanization, which means that the financial position of every student is very important because you are talking about working in the private sector and working for the government.

T 1: ..the labor market is full of expatriates mainly Indians and Pakistanis whose main language is English. it has been raised that there should be some kind of Omanisation, so these Omanis might be accepted in the labor market if they can replace these expatriates who can speak only and only English. Now if we get these students directly to the vocational area, it might be difficult for them to manage, because all things are delivered in English, Engineering, IT, Business and so on. Now the idea behind the foundation Year Programme straight way to qualify these students to an extent which may understand their subjects in English. now, when the subjects delivered they will understand it. This understanding also will help them compete in the classes. This is the generosity of the programme. Now whether the programme is suitable for the students or not that is completely different. And whether the secondary school certificate is valid or not that is some thing different. Because mostly. So spending one full year at least to help them manage in their specialization...

T 2: ...but at least efficient, they can communicate; understand in English after the foundation year. But if the student fail to do these

Interviewer: is this objective of the programme written some where?

T 1: written in that sense I don't think so.

Interviewer: Do you think it is important to make it written some where so that every one can refer to it?

T 2: yes...

T 3: every body inside the college campus news exactly what should be done, whether in the administration, stuff member, students and so forth. I think the general objective is clear for every body. But general objective can be divided into also specific.

T 4: these specific objectives are not there. The specific objectives and outcomes, what the students should be able to do at the end of this foundation. We have three levels, if you go and ask every teacher and ask about every level what students should be able to do at the end of for example elementary level go get different answers.

Interviewer: when did you come to know about the objective of the program?

T 1: after spending sometime... I tried on my own to read some books which explain different programmes for example how to teach listening, speaking with different levels of students and I got the idea.

T 2: actually A... was talking about the general objective of language teaching. I spent most of my life teaching English, so the general objective is very clear. So the policy of the ministry is very clear. So we are here to teach English, so we try let say to increase the level, to improve the level of English of our students.

T 3: ...but the specific objectives of the programme is not clear, because it is not written there and it is not explain at all... it should be explained... every new teacher should be inform about it... and even students themselves should know about the outcomes the goals... students themselves don't know about it... it is one of the mistakes...

T 4: the students are those input ...if you want this student after finishing each level get certain, lets say, information, ability to communicate in English, the question is give me a specific objective, What do you want to teach this student in this level and what do you want from the student after finishing the level to exercise, to communicate? What do you want him to do?

T 2: I agree with A.. and A... that the specific objectives are not clear, but in general we can say that our duty in the foundation programme is to qualify the students or to improve students language in English to be able to understand their subjects in the vocational programme. In my opinion about the specific objective of the programme I think it is just to qualify the students during their study here in the college to meet the requirement of the labor market after graduations. This is the only specific objective

T: I consider the financial aspect as the most important thing. These students after graduation want to go to the labor market, they want to work, if these students not communicate in English they will face a very big problem when they deal with the private sector in particular. If they don't know English language they will not work.

The Principle of the FYP

T 1: I only concentrate on helping them how to communicate in the daily life. In addition, textbooks also help them in lets say... teach students how to write letters, formal letters, specially when they go to the private sector they need these things...

T 2: for all purpose... English for all purpose

T 3: we are teaching students the four skills, reading, writing, listening and speaking.

T 4: it is English for all purposes... it teaches the whole skills...

T 5: the problem with the private sector is that they still claim that our graduates are unable to communicate in English. Communication may be through writing and through speaking mostly spending a lot of time just to upgrade these two skills. And I am sure that... I am afraid that even the students are able to communicate, they say the students are weak in these areas... but mostly we receive letters from the ministry saying very clear that our students are very weak in communication... communication might be writing, a memo, a letter, etc. communication might be some time verbally. So, we are trying our best that the students in the foundation are able to communicate by heading to the vocational area.

T 6: it is simply general English... because you know communication, you might communicate with your friends, with your boss, in the campany in the bank, in some official forms, in some let me say informal letter. So it might be general and might be specific. In the English books they are given the opportunity to practice all these types in English and also, in delivering all the skills in reading, or writing or speaking we try to as possible to let them speak English, at least something which might help individual...

T 2: we have to think about should we follow the needs of the private sector when we make our goals... should we prepare our students for communicating in English or other purposes...

T 4: I believe that students should know English just for this purpose (communication in the private sector)... the main purpose from my point of view is to teach English to meet the needs of the labor market.

T 1: it is a sense of quality... quality students... those who can work every where not only in the private sector here only in Oman, but every where

Interviewer; do you think that we as language teachers in this department need to know exactly what are the language needs of our students

T 1: if we know from the beginning what we supposed to do we do it properly. And there should be planning from the first step...

Interviewer: to what degree do you think the language needs are clear to us

T 1: not clear for every body...

T 2: in the minds of those who are specialized in English here might be some idea... in this department I am sure that those who teach English at least know exactly what the students need... when we move them to the vocational area

T 3: the students' level falls down when they go to the specialization...

Interviewer: how can we specify exactly the language needs of our students?

T 4: there should be some research doing that... there should be some specialized and high qualified people who can do that... and after that can establish contacts with the private sector, the staff members, the students, with ministry

Interviewer: how if we suggest that each teacher in the college should do a research in his own interest so that the system will improve?

T 1: I don't think that will be easy. This is something professional. You need professionals to do it.

T 2: there might be qualified staff but should not be given any load... supposed that you are a member of staff delivering 22 hours do you think you can do a research, I don't think so... if we were to do some research work there should be a comity not given any load except that work

T 3: in that case we need as Mr J... said we need very qualified people specialized in assessment, in making objective... to make objectives for every department...

Satisfaction and suggestions for improvement

T 1: for me in comparing students when they come first and when they finish mostly there is a very very big difference. So I think that 70% of the goal or the objectives are achieved.

Interviewer: in this case do you think that the programme needs any improvement?

T 1: for sure it needs improvement

T 2: in my opinion teachers should accept students as they are. all of us know that our students are very weak in English, so our main duty here is to encourage, motivate and help the students. The majority of our students don't have the interest to learn English, we should encourage them and motivate them.

T 3: talking about the programme itself the goals should be identified clearly for teachers and even students...

T 4: ... some of the students don't want to study here... in the colleges of technology... they want to go to the university of other places

T: they come to the college and they have a previous idea that the college does not have that reputation

T 5:...we have to make changes inside the colleges themselves to make (students) interested.

T 3: to provide suitable educational environment for example whether it is technical, business they need practice...

T 6: (textbooks) are not bad in general.

T 1:... they are revised from time to time... and every time there is a change, but generally they are OK

T 6: according to your goals you have to choose certain textbooks

FYP students:

Interviewer: How do you learn English in FYP?

S 1: "it is from the textbook. It is only memorizing what is in the book".

S 2: "some teachers let us participate others do not"

S 3: "we think our level has improved since joining the course, but not very much"

S 4: "we learn how to write paragraph. How to involve in a discussion".

S 5: "our level is weak in discussion, grammar,"

Interviewer: do you do assignments, research in the FYP?

S 1: "we have just started doing assignments, in the last level. It is only one assignment we do. It is assessed. It is given 5 marks. We also do a presentation which is given 5 marks".

Interviewer: Do you do questionnaires?

S1: "yes we do"

Interviewer: do you do report?

S 3: "no, we do not write reports".

Interviewer: Do you do discussions?

S 4: "yes we do group discussions"

S 5: "in FYP we study reading, writing. In writing we study how to write a paragraph. How to apply grammar rules in written sentences. We learn how to write letters. How to describe, write narratives. We are also taught how write introduction, body and conclusion".

Interviewer Do you think that all what you study in the FYP you need in your technical study?

S 1: "No, for example the reading is not relevant so, we do not read the textbook outside the classroom."

S 2: "we need every think. Now we study reading, writing and listening".

S 4: "if I join Engineering I do not need every thing. For example, I need to know how to write letter but, I do not think I need grammar".

S 3: "we can not say now what we need and what we don not because we know nothing about the study specializations"

Interviewer: What level of English do you think you need to be able to study in technical course?

S 1: "advanced level".

S 2: "we need advance level but we can not reach that level"

Interviewer: How do you know about the level of English you need in the technical study?

S 1: "we ask our friends students in the technical course. They tell us about the study there".

S 2: "the college has not inducted us to the technical course".

S 3: "we do not have a clear picture about the technical course. Our information is only from our friend students".

S 4: "we think they give us true idea".

S 5: "the college does not do any thing to tell us about the technical studies".

S 6: "there are some booklets about these specialization but not available to every students".

Interviewer: Do you think that having an idea about the technical studies and their demands would help you in studying English in the FYP?

S 1: "it will be useful. It will help us to decide which specialization to join".

S 2: "knowing the specialization in advance help us to study harder in order to get the specialization the person wants to join".

Interviewer: What are the language skills you think that you need more in the technical studies?

S 1: "speaking and writing".

S 2: "reading and writing and listening".

S 3: We need listening because we listen to the teachers speaking, we need reading because we read a lot of books, writing because the exams are written.

Interviewer: What are the language skills that you need to be focused on more in the FYP?

S 1: “we need more focus on grammar and pronunciation”.

S 2: “speaking might need farther focus. Writing, I think, is ok”.

S 3: “we need to improve our vocabulary”.

Interviewer: What do you suggest to improve your vocabulary? What do you suggest for your study?

S 1: “we need to improve our vocabulary” by giving us compulsory activities, for example watching video films. Now watching films in optional there for we miss it. To watch it, it has to be compulsory”.

S 2: “we need more focus on grammar and pronunciation”.

S 3: “we suggest that the FYP is intensive general English and to keep teaching us English while we are doing the technical course but to teach us the language of that course”.

S 4: “we need practice in spoken English”

S 5: “we need more focus in writing because in the specialization students write reports”

S 6: “the communication should be improved. We need to write from the actual contexts”.

S 2: “the self-learning should be under the guidance of the teacher. We are not always able to decide which books to read which one is suitable for us, the same with the audios, and videos”.

Interviewer: What do think of textbooks?

S 1: “the textbooks we think are nice”

S 2: “do not fit our culture. They are designed for western cultures”.

S 3: “the topics which are closer to our reality are more likely to be interested to us.

Appendix 5: List of the Technical Documents that was analysed in 5. 3.

IT

Information Technology: Two Years Diploma Syllabus, 2001/2002.

"Information Technology" Semester 2 (Textbook)

Assignment 1

Assignment 2

Assignment 3

Quiz 1

IT240 Programming in Visual Basic, Quiz 1.

IT 120 Introduction to Programming, End Semester 1 Exam, 2001-2002.

IT 210 Database Management, Mid term Exam.

MATC210 Mathematics II, Mid semester III Examination 2001-2002

IT 410 Introduction to Java Programming, Resit Exam, Semester II, 2001-2002.

System Analysis and Design, The Library System (assignment)

C-Programming (Assignment)

"Unix Operating System" (Textbook)

"Java 2" (Textbook)

"COMG 221 Applied Database" (Textbook)

King, K. N () " C Programming: A modern Approach, Part 1", New York, W. W. Norton Company.

Engineering:

ENGE-430 Instrumentation & Control (Theory) Final Examination Semester 4, April 2002.

ENGE-431 Power Electricity (Theory) Final Examination Semester 4, April 2002.

ENGM-440 Pneumatics & Hydraulics, Final Examination Semester 4, April 2002.

ENGE- 210 Electrical Principles, Final Examination, May 2002.

ENGA- 330 Engine Technology, Final Semester Examination, first Semester, 2001/2002.

ENGA-420 Engine Chassis Technology, Mid-Summer Term Examination.

ENGE-421 Vehicle Electrical & Electronic System, Final Examination, Semester 4, April 2002.

ENGM-420 Computer Aided Engineering, Final Examination Semester 2.

(5 June 1999) "Oman National Diploma: Second Year Engineering Programs at Technical Colleges", Muscat, Ministry of Social Affairs, Labour and Vocational Training, Directorate General of Technical Education.

"Oman National Diploma: Scheme for Semester 1 & Semester 2"

"Workshop: Activity 1"

Electronic Laboratory activity 1

Mechanical workshop activity 3

"Engineering Systems: assignment 1"

Electrical Power System, Mid-term Exam

ENGM-410 Engineering Systems (Textbook)

ENGG- 220 Engineering Mechanics, Quiz 1.

ENGG- 220 Engineering Mechanics, Quiz 3.

ENGG- 220 Engineering Mechanics, Mid term exam May 2002.

Business

Unit No. BUSG 220 "Marketing" (January 2001) (Textbook)

Unit No. BUSG 210 "Introduction to Management" (Textbook)

Unit No. BUSG 420 "Employees Relations & Personnel Practices" (Textbook)

Syllabus Plan for Years 1 &2.

Letter from Head of Department to 2nd Year Business Students, (subject: Choice of Specialization)

Management Accounting, Homework 2, Date of issue 1/6/2002.

Introduction to Accounting, Work Sheet.

Introduction to Accounting, Home Work 2, Date of issue 29/5/2002.

Financial Accounting- Partnership Accounts, Work Sheet.

Financial Accounting- 11, Final Examination.

BUSG 320 Introduction to Accounting, Quiz 1.

BUSG 130 Introduction to Accounting, Home work 1, 2001/2002.

BUSG 130 Introduction to Accounting, Home work 3, 2001/2002.

Marketing, Quiz 1.

Marketing, Quiz 1.

Marketing, Home work 1, 2001/2002.

Marketing, Home work 2, 2001/2002.

Marketing, Home work 3, 2001/2002.

Assignment Grading Scheme.

BUSG 430 Business Correspondence, Mid term examination, May 2002.

Business Correspondence, Practical No. 3.

Appendix 6: table of technical teachers and students' marking of the language uses as used/unused.
(The figures are in percentages).

No	The language use	IT						Engineering						Business					
		Y1		Y2		teachers		Y1		Y2		Teachers		Y1		Y2		Teachers	
		uses	unused	used	unused	used	unused	used	unused	used	unused	used	unused	used	unused	used	unused	used	unused
1	Reading instructions or manuals	79	21	76	24	92	8	71	29	84	16	100	000	29	71	25	75	20	80
2	Reading newspaper and magazine articles.	57	43	68	32	86	14	82	18	80	20	11	89	65	35	58	42	82	18
3	Reading academic email messages	47	53	45	55	79	21	49	51	51	49	79	21	42	58	42	58	40	60
4	Reading formal letters with general content	68	29	66	34	64	36	71	29	72	28	58	42	49	51	52	48	60	940
5	Reading advertisements	66	32	82	18	86	14	86	14	80	20	89	11	72	28	69	31	100	000
6	Reading a text to understand all or most of the information in it	92	7	92	8	100	000	97	3	90	10	100	000	96	4	86	14	100	000
7	Reading a text to understand the main information only in it	75	25	83	17	100	000	86	14	84	16	89	11	64	36	86	14	100	000
8	Searching the www	78	22	78	22	100	000	47	53	52	48	84	16	43	57	57	43	63	27
9	Using dictionary	100	000	87	13	100	000	92	8	92	8	83	17	100	00	94	6	100	000
10	Reading aloud	81	19	59	41	64	36	68	32	58	42	87	13	70	30	58	42	100	000

No	The language use	IT						Engineering						Business					
		Y1		Y2		Teachers		Y1		Y2		Teachers		Y1		Y2		Teachers	
		Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused
11	Reading information from images	76	24	75	25	100	000	79	21	79	21	95	5	79	21	74.5	25.5	92	8
12	Reading for general idea	89	11	93	7	86	14	92	8	76	24	100	000	87	13	78	22	100	000
13	Filling out forms	66	34	62	34	79	21	58	42	54	46	89	11	71	29	84	16	92	8
14	Writing plans for assignments/ projects	74	26	81	19	86	14	78	22	75	25	95	5	78	22	59	41	100	000
15	Writing summaries of text or assignments	83	17	70	30	86	14	72	28	74	25	89	11	82	18	90	10	100	000
16	Taking notes from lectures	89	3	92	8	100	000	78	22	79	21	94	6	98	2	90	10	100	000
17	Translating from Arabic to English	95	5	87	13	64	36	62	38	75	25	50	50	79	21	85	15	64	36
18	Writing formal letters with general content	74	26	64	36	71	29	57	43	66	34	68	32	65	35	49	51	73	27
19	Writing questionnaire	65	35	81	19	71	29	82	18	66	34	44	56	51	49	78	22	100	000
20	Writing/ designing images	78	22	77	23	86	14	82	18	81	19	95	5	65	35	75	25	100	000
21	Writing (CV)	57	43	46	54	57	43	42	58	52	48	74	26	39	61	40	60	83	17
22	Explaining in writing the content of images	82	18	73	27	93	7	76	24	81	19	100	000	82	18	63.5	35	100	000
23	Writing a one-paragraph piece of work	73	27	73	27	93	7	78	22	69	31	89	11	92	8	82	18	100	000

No	The language use	IT						Engineering						Business					
		Y1		Y2		Teachers		Y1		Y2		Teachers		Y1		Y2		Teachers	
		Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused	Used	Unused
24	Writing a multi-paragraphs piece of work	74	26	71	29	77	23	81	19	68	32	100	00	67	33	62	38	100	000
25	Quoting	82	18	68	32	77	23	76	24	58	42	78	22	69	31	67	33	100	000
26	Writing narratives	60.5	39.5	54	46	77	23	63	37	59	41	84	16	61	39	44	56	92	8
27	Using future verbs	58	42	59	41	61	39	61	39	54	46	74	26	69	31	67	33	71	29
28	Taking part in a group work/discussion	74	26	73	27	92	8	78	22	73	27	89	11	61	39	61	39	100	000
29	Giving oral instructions	84	16	75	25	92	8	70	30	79	21	95	5	77	23	65	35	83	17
30	Listening to lecture	89	11	87	13	92	8	78	22	82	18	100	000	83	17	85	15	92	8
31	Listening to radio & Watching television	76	24	75	25	57	43	71	29	70	30	68	31	67	33	48	52	73	27
32	Being Interviewed	65	35	63	37	64	36	72	28	59	40	58	42	43	57	48	52	37	63
33	Giving opinion	87	13	79	21	79	21	70	30	69	31	79	21	74	26	60	40	100	000
34	Giving short talks or presentations	63	37	71	29	86	14	74	26	68	32	68	32	62	38	71	29	100	000
35	Writing application letter	50	50	74	26	57	43	72	28	60	40	74	26	60	40	44	56	75	25
36	Participating in a live e-mail discussion	54	46	56	44	64	36	47	53	45	55	47	53	29	71	37	64	27	73
37	Correcting mistaken information orally	74	26	84	16	57	43	70	30	73	27	68	32	71	30	72	28	54	46
38	Making suggestions orally	71	29	76	24	64	36	58	42	70	29	83	17	75	24	65	35	82	18

Appendix 7: The data collection schedule

Week 1 (2/11-6/11)

This week was examination week for the technical departments at both Muscat and Ibra colleges. Therefore, it was not possible to do any actual data collection in these departments.

1. Icebreaking visits to both Ibra and Muscat colleges were conducted. I met the Technical and FYP heads of departments to introduce myself and my topic.
2. Questionnaires: to technical teachers in Ibra and Muscat were distributed to be collected in forthcoming visits.
3. Interviews: with FYP teachers, students and heads of departments were conducted. I did twelve interviews as below:

Students		Teachers		HoD	
Muscat	Ibra	Muscat	Ibra	Muscat	Ibra
3 groups of 6 students	3 groups of 6 students	3 groups of 4	2 groups of 5	1	1

Week 2 (9/11-13/11)

This week was dedicated to data collection at Ibra college only.

1. Classroom observations: 4 classroom sessions were attended as follow:

Engineering	IT	Business
1. Electrical Power: technology lab. (Y2) 2. Engineering Mechanics (Y 1).	1. IT systems (Y1)	1. Principles of Management (Y!)

2. Questionnaire: was distributed to IT, Engineering and Business students. The number of participants from each specialization and year is shown below:

Bus.		IT.		Eng.	
Y1	Y2	Y1	Y2	Y1	Y2
25	25	25	25	25	25

4. The questionnaires that had been distributed to the technical teachers were collected this week.

Week 3: (16/11- 20/11)

This week was dedicated to data collection at the Muscat colleges only.

1. Classroom observations: 4 classroom sessions were attended as follows:

Engineering	IT	Business
1. Mechanical Technology. (Y2)	1. Mathematics I (Y 1) 2. Database II (Y 2)	1. Banking practice (Y 2)

2. Questionnaire: was distributed to IT, Engineering and Business students. The number of participants from each specialization and year is shown in the following table:

Bus.		IT.		Eng.	
Y1	Y 2	Y1	Y2	Y1	Y2
25	25	25	25	25	25

3. Interviews: IT, Engineering and Business heads of department were interviewed.

4. The questionnaire that had been distributed to the technical teachers in week one were collected this week.

Week 4: (23/11- 27/11)

2 day of this week were spent at Ibra College, the other 3 were spent at Muscat.

A. Ibra college:

1. Classroom Observation, 5 were done:

Engineering	IT	Business
1. Electricity and Management (Y 2)	2. introduction to programming 3. Programming in advance "C" (Y 2)	1. Business Planning (Y 2). 2. Financial Management (Y 2)

2. Interviews:

A. Three groups of teachers from each technical department were interviewed- IT (5 teachers), Engineering (5 teachers) and Business (6 teachers).

B. Muscat college:

1. Classroom Observation, 4 were done:

Engineering	IT	Business
1. Engineering Science-Lab (Y 1). 2. Engineering Drawing (Y 2)	1. Web Design (Y 2)	1. Mathematics (Y 1) 2. Financial Accounting (Y2)

2. Interviews: Three groups of teachers, one from each technical department were interviewed- IT 4 teachers, Engineering 6 teachers and Business 3 teachers.

Week 5 (30/11- 4/12 2002)

2 day of this week were spent at Ibra College, the other 3 were spent at Muscat.

First, Ibra:

1. Classroom Observation, 3 were done:

Engineering	IT	Business
1. Engineering Science- Lab (Y 1).	1. Database II (Y 2)	2. Mathematics (Y 1)

2. Interviews: with IT, Engineering and Business students were conducted. Two groups from each department representing years 1 and 2 participated.

B. IT, Engineering and Business heads of department were interviewed.

Second Muscat:

1. Classroom Observation, 3 were done,

Engineering	IT	Business
1. Mechanical Technology. (Y2)	1. Mathematics I (Y 1)	1. Banking practice (Y 2)

2. Interviews:

A. interviews with IT, Engineering and Business students were conducted. Two groups from each department representing years 1 and 2 participated.

Week 6 (7/12- 11/12/2002): This week was the Eid holiday in Oman. I left for the UK on the 13th December 2002.

Appendix 8: Transcript of Classroom Talk

IT Classroom

T. user two Alix, suppose you want to go to report, for example... A drive... the root is the root directory slash root... ok... user then alix...ah ... sorry user hls... from hls. Bin then finally [S...to report] to report... this root we call it a path [name] name. and you have example of back names here... you have example of back names. Fourth one you have the user. What is the user... what is the back name for user?

You start... you start... with dash ... the root directory and then with the user and then the users... what do we call this? This is the bath name... this is the bath name... slash coming from the root directory and the directory user... this is the bath name for... user.. ok lets see another bath name for ETC for example... what would be the *** ? ah [slash] slash [ETC] ETC . ok lets go farther now, lets go farther... how about Jini? [slash] Jinin [slash] would be...ah... [slash] (course classroom talk- replay) [be] slash ... ok would be slash user [slash user] slash user [slash] slash [slash Jini] slash jinni . between each level and the level after we will use slash. As we said user in the father of jinni. Ah... or jinni is the son of user. Ok . so, this is what we call the bath name.

Lets see another bath name for example... for example nose... nose. What is the bath name for nose? [slash] slash [user] user [slash] slash [hls] ah [hls] hls] slash [slash] nose. This is another bath name. here when we talk about bath name we can talk about two types of bath names.. really.. the first one is absolute bath name and the second is relative.

The absolute name... the absolute bath name.. what do we mean by absolute bath name? the absolute name... the bath which starts run the root. Ok. Does that mean that we can start run the bath from the middle of the tree? Yes, we can but that would be called anther type of bath names. And will not be absolute. To be absolute, the bath name has to start from the... from the root. Ok. Does that mean we can't start bath name from... from the middle of the tree. It doesn't have to be from... from the very beginning... from the root directory.

Yah we can do that. But will be another bath name, we call it a relative bath name. now we know what is the difference between ah... a bsolute bath name and a relative bath name. absolute bath name starts from the very beginning... from the root directory. The relative can start from anywhere in the tree. Doesn't have to be root directory. It can start from any where in the tree. Ok. So, here we are talking about the absolute bath name.

[...?]

eh...[...] eh.. [...] No, we will not... this is always... this is always where the root directory starts... always. Yes? .[...] no it will not change, it will not change. At the root directory, it do not change. Always root directory by slash. But, What could be change that we can start not from the root. We can start from the middle for example we can start for example from the user... we can start from the user... user, for example alix, or user jinni or user hls, user hls nose ofr example. We can do this. And this will be a bath, but will not be an absolute bath. Because it has to start from the root directory. Will be what is call a relative bath name. ok.

Lets, Go back to the right name. lets see lot for example, lot bath name...ah... [slash] slash [user name] user [slash] slash [hls] hls [slash] slash [bin] bin [slash] slash [lot]...

Engineering

we want to discuss together the heat treatment process. heat treatment process is a process that control the heat and cool the heating and cool the heating... of the material at a solid state.. and control these structure and properties and control these structure and properties. How can we do this process? Every or any material has something called recrystallization temperature . this temperature the properties of the material or the grain of the material will start change from the type to another type. How does this happen? How does this happen?

After we heat this material... after we make heating for this material... the process of recrystallization temperature happen and there is a distortion in the grain and the new grain will start to grow... the new grain will start to grow. Now this is four treat heating process. We have four heat treatment process.

The first one is the eminent process. If we speak about all the heat treatment process. These heat treatment process import three main stages. The first one is to heat the metal to a temperature above the recrystallization temperature which is above seven hundred twenty degree centigrade. And the second state is to hold this temperature for some time after that you have to cool this material with a proper way to a room temperature.

These are the main stages of heat treatment process. The fifth of the heat treatment process is the immanent. What do we mean by immanent? Immanent is used to make the metal softer and more.... Softer and more... to give this means to give the material the machineability the machineability to easy to work machine for this material...

How can we immanent this? The first thing is to heat the material to the temperature above the recrystallisation temperature which is as I told you to seven hundred twenty three degrees centigrade. After that we have to keep this material... to keep this material for some time with this temperature. With the recrystallisation temperature for above the recrystallisation temperature

We have to keep this temperature for some time. After this time you have to cool this material. How are you going to cool this material in immanent? Immanent... you have to cool this material by a very slow cooling grade. How? Can we use this? [take it in the room or in the space] take it in the room or in the space... this is good way but very through rate. No.. no.. what is the very fast way? Yah.. That is right. Saving in the thermos or put it... this material inside some sort of sand.

The way to make cooling for this material for this immanent process is to keep this material after heating inside a thermos put off the thermos and keep the material inside it.... The thermos... this is a good way to make very slow cooling rate. Or as I told you to take this material and put it inside a container of some sort of sand. This will get us a very slow rate of cooling.

What will happen in the immanent process? the immanent process the first thing when we heat the material the first thing is the material will the gains of the material will stop distort. The first thing is distort degree. The second thing is the new gains will start to grow. new gains will start to grow. Then this new grains will increase in size... in size. The size of this grain will start to increase. start to increase. After or when the decentralization is complete. Although the grain will grow inside. This gives the material the big side gains. the the big side gains.

The material in this new treatment process will become very soft and very luxury. But this advantage is the... the material become very bad surface because of the size of the gain. Because

Business

Last time or last lecture I was talking about what sort of departments we have in Business organizations, and also... we must have specialized departments. Can any one remind me what are these departments? And nearly the main responsibilities of these departments. The first one you get in the hand out... the first one is research and development, and the responsibility of this one? To research into the new opportunities. So this is the first department, which is a very important department. What is the second department? [the production department]. Now, what is the main responsibility of production department? We know the production department is a very important department? [whole class answer: goods and services] goods and services. So, from the name of the that the function of these departments is to produce our services and I*** we have to work very close with other departments. And the third department which is listed in this hand out is the [production] is the purchasing department. Now what is the main... now this is a quick review of what we have so far. Now what is the major responsibility of this department? [to purchase raw material and the organization needs. Now for conditions are important when we select suppliers. Now I want one to speak if any one can. I don't want a group to speak. Can any student tell me what are the important conditions we should have when we select suppliers? [right supplier] right supplier, [right price] [right quality]. And there are very important conditions which we apply when we look at suppliers. Therefore, right supplier, right price right*** right quality are the criteria when we select suppliers. And this we have done so far in the last lecture.

Another important department, and this department is or has a very strong connection with that department, we call this? [finance] finance department. Now, why do you think this department is important? [they have the finance] yes, because they have the finance. They have the capital in their hands. Therefore, what is their job?....

(a student entered the class. Teacher said: you are late Abdullah.)

Now this department is a very important of all and of a very strong relationship with other departments.

(another student entered, teacher said: you are late and you disturb the class Nasser. You come late and you make a lot of noise)

ok, now this department is a very important department. Lets*** on that. Why is it very important? Because they have the capital and on that capital they get to other departments. So that they can establish their activity. Therefore, we have to operate within the budget. We have to achieve our objectives within the budget. That's the idea. Remember*** for each organization we have a budget.

Now, we have to operate within that budget, what does that mean? Do you remember the example which I gave you last time. We have a budget we have to operate within that budget what does that mean? Remember we have objectives, and we have a budget, what is the relationship between objectives and budget?

Yes... [to achieve that objective within the budget] yes, to achieve these objectives within the budget and this is called the target. We have to achieve our objective within this budget. So, this time I think all of this that we discussed last time and the marketing department was the another department which we should discussed service department again we have discussed last time, so lets look at a new department which is the resource department. Some people call it resource and some people call it personnel department or staff department, we have so many names for this department.

Appendix 9: Questionnaires and Interviews that contain Questions about Motivation and Learning Strategies.

1. (FYP Students Questionnaire)

Dear students,

My name is Suleiman Al-Husseini. I am doing a Ph.D. study in teaching of English at the University of Leeds, UK. Your cooperation with me is very important for the completion of this study. This questionnaire looks for some information about you as a student in Technical Colleges and about the teaching of English in the Foundation Year Programme. The information you provide me will be used for research purpose only and will be treated with complete confidentiality. Therefore, you do not need to write your name. Please answer all the questions.

The questionnaire consists of 6 sections, as follow:

Section 1 aims at collecting personal information about you.

Section 2 aims at collecting information about your purpose of studying English.

Section 3 aims at understanding your motivation toward learning English

Section 4 aims at understanding the importance of skills and knowledge to you

Section 5 aims at understanding your evaluation of the FYP

Section 6 seeks understanding of the learning strategies that you apply in your learning of English

Yours Sincerely

Suleiman Al-Husseini

Section 1. instruction: would you please provide the following information by putting a tick in the appropriate box

College: Muscat Ibra Ni a Salalah AlMusana
 Gender: Girl Boy

Section 2. A. what is your purpose of studying English in the FYP?

Instruction: in the box below you have 5 purposes, pleas put a tick against the applicable ones and a cross against the inapplicable- you can choose more than one purpose.

No	The purpose	Your choice
1	To use English in everyday life	
2	To be able to study in my technical course	
3	To use English in my work	
4	To pass the exam	
5	Non of the above	

B. if your answer in A was no. 5 would you give us your purpose?
 (use the space provided below to write your purpose)

.....

Section 3. A. how much do you enjoy learning English?

Instruction: you have a statement with 4 options please, put a tick against the applicable option to you.

The statement	The topics	Your choice
Learning English is something...	I enjoy very much	
	I enjoy	
	I don not enjoy	
	I do not enjoy very much	

b. can you explain you choice in a? (please, write your answer in the space below:

.....

Section 4. How important are the following skills and knowledge to you?

Instruction: you have in the box below 6 types of skills and knowledge and 3 options (very important, important, and not important) please, put a tick against each one as applicable to you

No	Skill/knowledge	Very important	important	not important
1	Speaking skills			
2	Listening skills			
3	Reading skills			
4	Writing skills			
5	Language learning skills for example, how to write report, letter, take notes			
6	Knowledge and skills relevant to the technical fiels			

Section 5: A. how satisfied are you with the FYP in terms of level, material, way of teaching, length of the course, assessment system and your achievement?

Instruction: you have in the box below 6 topics relating to the FYP and 4 options against each one, please put a tick against each topic and under each option as applicable to you

No.	Area	Very satisfied	satisfied	unsatisfied	Very unsatisfied
1	Level of the course				
2	Material (textbooks)				
3	The way the teachers teach you English				
4	Length of the course				
5	Assessment system				
6	You achievement				

B. if you are either unsatisfied and/or very unsatisfied with any of the above mentioned areas would you tell us why? (please, use the space provided below to write your reasons).

.....

Section 6. a. which of the following learning strategies do you apply in your learning of English?
 Instruction: in the table below you have 13 learning strategies and 4 options (most often, often, sometimes, rarely and never) please, put a tick against the strategy and under the option as applicable to you.

No	The learning strategy	Most-often	often	sometimes	rarely	never
1	Prepare for the classroom lesson in advance					
2	Ask the teacher for explanation when you do not understand					
3	Keep up with the teacher while studying in the classroom					
4	Use English material other than the textbook to improve your English competence					
5	Speak with friends in English to improve your speaking skill					
6	translate Arabic into English and vice versa to improve your writing					
7	Take notes in the classroom					
8	Summarize the main ideas while listening or reading					
9	Discuss your experience and feelings about language learning with a friend, teacher, classmate etc.					
10	Ask your teacher to correct your errors					
11	Try to find out the sources of your errors and eliminate them					
12	Evaluate your improvement					
13	Guess the meaning of new words					

b. would you write down in the space below any another strategy that you use in your learning of English?

.....

That is the end of the questionnaire. Thank you for your co-operation.

2. (Technical Students Questionnaire)

Dear students,

My name is Suleiman Al-Husseini. I am doing a Ph.D. study in teaching of English at the University of Leeds, UK. Your cooperation with me is very important for the completion of this study. This questionnaire looks for some information about you as a student in Technical Colleges and about the teaching of English in the Foundation Year Programme. The information you provide me will be used for research purpose only and will be treated with complete confidentiality. Therefore, you do not need to write your name. Please answer all the questions.

The questionnaire consists of 7 sections, as follow:

Section 1 aims at collecting personal information about you.

Section 2 aims at collecting information about your purpose of studying English.

Section 3 aims at understanding your motivation toward learning English

Section 4 aims at understanding the importance of skills and knowledge to you

Section 5 aims at understanding your evaluation of the FYP

Section 6 seeks understanding of the learning strategies that you apply in your learning of English

Section 7 aims at understanding the language uses (activities, skills and sub-skills that you perform in your technical courses.

Yours Sincerely
Suleiman Al-Husseini

Section 1. instruction: would you please provide the following information by putting a tick in the appropriate box

College: Musc Ibra zwa Salalah AlMus ha
 Specialisation: Engineering IT Business
 Year (in specialisation): one two
 Gender: Girl Boy
 Did you do the Foundation Year Programme (FYP)? Yes No

(if you did not do the FYP please do not complete this questionnaire).

Section 2. A. Why do you need English?

Instruction: in the box below you have 5 purposes, pleas put a tick against the applicable ones and a cross against the inapplicable- you can choose more than one purpose.

No	The purpose	Your choice
1	To use English in everyday life	
2	To be able to study in my technical course	
3	To use English in my work	
4	To pass the exam	
5	Non of the above	

**B. if your answer in A was no. 5 would you give us your purpose?
 (use the space provided below to write your purpose)**

.....

Section 3. A. how much do you enjoy learning English?

Instruction: you have a statement with 4 options please, put a tick against the applicable option to you.

The statement	The topics	Your choice
Learning English is something...	I enjoy very much	
	I enjoy	
	I don not enjoy	
	I do not enjoy very much	

b. can you explain you choice in a? (please, write your answer in the space below:

.....

Section 4. How important are the following skills and knowledge to you?

Instruction: you have in the box below 6 types of skills and knowledge and 3 options (very important, important, and not important) please, put a tick against each one as applicable to you

No	Skill/knowledge	Very important	important	not important
1	Speaking skills			
2	Listening skills			
3	Reading skills			
4	Writing skills			
5	Language learning skills for example, how to write report, letter, take notes			
6	Knowledge and skills relevant to the technical fields			

Section 5: A. how satisfied are you with the FYP in terms of level, material, way of teaching, length of the course, assessment system and your achievement?

Instruction: you have in the box below 6 topics relating to the FYP and 4 options against each one, please put a tick against each topic and under each option as applicable to you

No.	Area	Very satisfied	satisfied	unsatisfied	Very unsatisfied
1	Level of the course				
2	Material (textbooks)				
3	The way the teachers teach you English				
4	Length of the course				
5	Assessment system				
6	You achievement				

B. if you are either unsatisfied and/or very unsatisfied with any of the above mentioned areas would you tell us why? (please, use the space provided below to write your reasons).

.....

Section 6. a. which of the following learning strategies do you apply in your learning of English?
Instruction: in the table below you have 13 learning strategies and 4 options (most often, often, sometimes, rarely and never) please, put a tick against the strategy and under the option as applicable to you.

No	The learning strategy	Most-often	often	sometimes	rarely	never
1	Prepare for the classroom lesson in advance					
2	Ask the teacher for explanation when you do not understand					
3	Keep up with the teacher while studying in the classroom					
4	Use English material other than the textbook to improve your English competence					
5	Speak with friends in English to improve your speaking skill					
6	translate Arabic into English and vice versa to improve your writing					
7	Take notes in the classroom					
8	Summarize the main ideas while listening or reading					
9	Discuss your experience and feelings about language learning with a friend, teacher, classmate etc.					
10	Ask your teacher to correct your errors					
11	Try to find out the sources of your errors and eliminate them					
12	Evaluate your improvement					
13	Guess the meaning of new words					

b. would you write down in the space below any another strategy that you use in your learning of English?

.....

Section 7. A. How often do you do the following English language uses in your academic study? In the table you have 73 language uses and five options (very often, often, sometimes, rarely and never) pleas, put a tick (√) under the option which is right to you for each language use.

No	The language use	Very often	Often	Some-times	Rarely	Never
1	Reading instructions or manuals of machines, equipment.					
2	Reading newspaper and magazine articles.					
3	Reading formal letters with technical content					
4	Reading reports					
5	Reading essays					
6	Reading short notes					
7	Reading summaries					
8	Reading email messages					
9	Reading formal letters with general content					
10	Reading advertisements					
11	Reading intensively to understand all the information in a text					
12	Reading for the main information in a text					
13	Searching the www for information.					
14	Using dictionary to find meanings of new words					
15	Reading aloud with correct information					
16	Read short answer questions					
17	Reading/finding information from charts, timetables, graphs and forms					
18	Reading quickly through a text to get a general view of the content.					
19	Filling out forms					
20	Writing a proposal					
21	Write a report					
22	Writing summaries					
23	Write short notes					
24	Design a web page					
25	Write diary					
26	Taking notes from lectures					
27	Translating from Arabic to English					
28	Writing formal letters with technical words					
29	Writing formal letters with general content					
30	Writing a questionnaire					
31	Write interview questions					
32	Writing and designing images (e.g. tables, graphs, charts) to use in presentations or written reports					

No	The language use	Very often	Often	Sometimes	Rarely	Never
33	Write short answers					
34	Write discrete sentences					
35	Writing curriculum vitae (CV)					
36	Writing a letter of application					
37	Writing a discription					
38	Explaining in writing the content of graphs, tables, charts, diagrams					
39	Writing a one-paragraph piece of work					
40	Writing a multi- paragraph piece of work					
41	Quoting from books or articles to support their ideas when writing assignments, reports etc.					
42	Sending assignment by email to your teachers					
43	Write a narrative (about past event)					
44	Writing about future plans					
45	Taking part in a pair work/discussion					
46	Interpreting					
47	Describing event/thing orally					
48	Giving instructions orally					
49	Consulting someone (face to face or by phone)					
50	Taking part in a group work/discussion					
51	Delivering presentations					
52	Asking someone to make his her information clear					
53	Taking a telephone message					
54	Listening to lecture					
55	Listening to radio & Watching television to get information for their study					
56	Being an interviewee					
57	Giving their opinion on a specific or general subject					
58	Giving short talks					

59	Participating in a live e-mail discussion					
60	Expressing dissatisfaction					
61	Expressing apology					
62	Accepting an offer or invitation					
63	Declining an offer or invitation					
64	Correcting mistaken information orally					
65	Identifying someone					
66	Making suggestions					
67	Introducing people and being introduced					
68	Requesting assistance					
69	Offering assistance					
70	Being an interviewer					
71	Leaving a simple phone message on an answering machine					
72	Attending a conference					

B. Add in the spaces below any activity that you do in your study and not mentioned in the list above (this is optional).

That is the end of the questionnaire. Thank you for your co-operation.

Interviews:

FYP Heads of Departments Interives

1. what are the objectives of the Programme? How are thy set? By whom?
2. how has the history of the FYP influenced the way it is now?
3. What are the actual language needs of the FYP stuetns? Are they clear to the programme developers, EL teachers and the students?
4. Do you regard the present practice in the FYP sufficient to meet the language needs of the learners? What are the gaps? What are the possible causes of dissatisfaction?
- 5 what do you suggest for the improvement of the FYP?
6. from your experience, how motivated are the FYP students? If not motivated, why are they not motivated? How can they become motivated?
7. would you like to add any further information relevant to the aim of this interview?

Heads of the Technical Departments

1. to what extent do you consider knowledge of English is important for academic performance in your department?
2. what are the actual language needs of your students? Are these needs clear to the students and EL teachers in the FYP?
3. do you think the language competence of the FYP graduates is sufficient enough to enable them to cope with the challenges of the language demands of the technical studies? If it were not sufficient, what the deficiencies? How can such deficiencies be overcome?
4. From your experience, how motivated are the students to study in the technical and FYP departments? (if not motivated) how can their motivation be improved?
5. would you like to add any further information relevant to the aim of this interview?

3. (Technical Teachers questionnaire)

Dear colleague,

My name is Suleiman Al-Husseini. I am a lecturer of English at Ibra Technical College. At the moment I am doing a Ph.D. study in TESOL at the University of Leeds, UK. The title of my study is "An Analysis of the English Needs of Omani Students on Vocational and Technical Courses With Implications for the Design of Foundation Year English Language Programmes". Your cooperation with me is very important for the completion of this study. This questionnaire looks for some information about the students in the Technical Colleges, and the use of English in the technical specializations in the colleges. The information you provide me will be used for research purpose only and will be treated with complete confidentiality. Therefore, you do not need to write your name. Please answer all the questions.

The questionnaire consists of 6 sections, as follow:

Section 1 aims at collecting information about your college/department.

Section 2 aims at collecting information about the purpose your students study English for.

Section 3 aims at understanding the motivation of your students toward studying in the college.

Section 4 aims at understanding the skills and knowledge to your students

Section 5 aims at understanding your evaluation of the FYP

Section 5 aims at understanding the language uses (activities, skills and sub-skills) the technical students perform in their subject course.

Yours Sincerely

Suleiman Al-Husseini

Section 1. Would you please put a tick in a box below as applicable to you?

College: Muscat Ibra N_owa Sal_{ah} A_hMusana

Department: BusinessIT_hngineering

Section 2. Why do the college students need to learn English?

Instruction: in the box below you have 5 purposes, please put a tick against the applicable ones and a cross against the inapplicable- you can choose more than one purpose.

No	The purpose	Your choice
1	To use English in everyday life	
2	To be able to study in my technical course	
3	To use English in my work	
4	To pass the exam	
5	Non of the above	

B. if your answer in A was no. 5 would you give us the purpose?
(use the space provided below to write your purpose)

.....

section 3: a. how motivated are your students toward learning English?

No	The statement	The majority of students	Some of students	A few of students	None of students
1	Very motivated				
2	Unmotivated				
3	Motivated				
4	Very motivated				

b. why? Explain your choice in section a above.

.....

Section 4. how important are the following skills and knowledge to your students?

Instruction: you have in the box below 6 types of skills and knowledge and 3 options (very important, important, and not important) please, put a tick against each one as applicable to you

No	Skill/knowledge	Very important	important	not important
1	Speaking skills			
2	Listening skills			
3	Reading skills			
4	Writing skills			
5	Language learning skills for example,			

	how to write report, letter, take notes			
6	Knowledge and skills relevant to the technical fiels			

Section 5: A. from what you know about the FYP how satisfied are you with it in terms of level, material, way of teaching, length of the course, assessment system and your achievement?

Instruction: you have in the box below 6 topics relating to the FYP and 4 options against each one, please put a tick against each topic and under each option as applicable to you

No.	Area	Very satisfied	satisfied	unsatisfied	Very unsatisfied
1	Level of the course				
2	Material (textbooks)				
3	The way the teachers teach you English				
4	Length of the course				
5	Assessment system				
6	You achievement				

B. if you are either unsatisfied and/or very unsatisfied with any of the above mentioned areas would you tell us why? (please, use the space provided below to write your reasons).

.....

C. what would you suggest to overcome the causes of dissatisfaction and improve the course? Use the space below to write your suggestions

.....

Section 6. A. How often do you require your students to do the following English language uses in their academic study? In the table you have 73 language uses and five options (very often, often, sometimes, rarely and never) please, put a tick (✓) under the option which is right to you for each language use.

No	The language use	Very often	Often	Some-times	Rarely	Never
1	Reading instructions or manuals of machines, equipment.					
2	Reading newspaper and magazine articles.					
3	Reading formal letters with technical content					
4	Reading reports					
5	Reading essays					
6	Reading short notes					
7	Reading summaries					
8	Reading email messages					
9	Reading formal letters with general content					
10	Reading advertisements					
11	Reading intensively to understand all the information in a text					
12	Reading for the main information in a text					
13	Searching the www for information.					
14	Using dictionary to find meanings of new words					
15	Reading aloud with correct information					
16	Read short answer questions					
17	Reading/finding information from charts, timetables, graphs and forms					
18	Reading quickly through a text to get a general view of the content.					
19	Filling out forms					
20	Writing a proposal					
21	Write a report					
22	Writing summaries					
23	Write short notes					
24	Design a web page					
25	Write diary					
26	Taking notes from lectures					
27	Translating from Arabic to English					
28	Writing formal letters with technical words					
29	Writing formal letters with general content					
30	Writing a questionnaire					
31	Write interview questions					
32	Writing and designing images (e.g. tables, graphs, charts) to use in presentations or written reports					

No	The language use	Very often	Often	Sometimes	Rarely	Never
33	Write short answers					
34	Write discrete sentences					
35	Writing curriculum vitae (CV)					
36	Writing a letter of application					
37	Writing a description					
38	Explaining in writing the content of graphs, tables, charts, diagrams					
39	Writing a one-paragraph piece of work					
40	Writing a multi- paragraph piece of work					
41	Quoting from books or articles to support their ideas when writing assignments, reports etc.					
42	Sending assignment by email to your teachers					
43	Write a narrative (about past event)					
44	Writing about future plans					
45	Taking part in a pair work/discussion					
46	Interpreting					
47	Describing event/thing orally					
48	Giving instructions orally					
49	Consulting someone (face to face or by phone)					
50	Taking part in a group work/discussion					
51	Delivering presentations					
52	Asking someone to make his her information clear					
53	Taking a telephone message					
54	Listening to lecture					
55	Listening to radio & Watching television to get information for their study					
56	Being an interviewee					
57	Giving their opinion on a specific or general subject					
58	Giving short talks					

59	Participating in a live e-mail discussion					
60	Expressing dissatisfaction					
61	Expressing apology					
62	Accepting an offer or invitation					
63	Declining an offer or invitation					
64	Correcting mistaken information orally					
65	Identifying someone					
66	Making suggestions					
67	Introducing people and being introduced					
68	Requesting assistance					
69	Offering assistance					
70	Being an interviewer					
71	Leaving a simple phone message on an answering machine					
72	Attending a conference					

B. Add in the spaces below any activity that you do in your study and not mentioned in the list above (this is optional).

That is the end of the questionnaire. Thank you for your co-operation.



Ibra Technical Industrial College

Systems Analysis & Design



The library system

From:
Saleema AL-Rahbi
Badria AL-Sarmi
Saleema AL-Maskari
Group: IT1B
To: {Mr.Jamshed}

Case Study:

The library

There are a lot of facilities and services in Ibra Technical Industrial College. The library is one of these facilities. It has a reference section, a lending section, and a reading hall. In the reference and lending section there is a large number of Arabic and English books. There are books on business studies, philosophy, and psychology, statistics, sociology, computer science, English language, literature ect. The reading hall provides a variety of magazines and news papers. The library is open from 8:00 a.m to 2:30 p.m on all weekdays. The services of the library are open to students and staff (both teaching and administrative) of the college.

Step 1

Establish the major inputs and outputs of the system, their sources, recipients and represent them in a context diagram (A context diagram is simply a very high level DFD which represents the entire system as one process). In our simplified The Library Case Study, the inputs are as follows:

Input Description	Comment	Source
New or changed student details	This occurs when a new student joins the college or an existing student changes his/her group, department, address or telephone number.	Student
New or changed teacher and employee details	This occurs when a new teacher and employee joins the college or an existing teacher and employee change their address and telephone number.	Teacher and employee
Date Borrowed	This flow is initiated when borrowers come to borrow books.	Borrowers
Information about the books	Librarian of library takes information about borrowed books such as (Title, author, serial number and classification number)	Librarian

The major outputs of the system are as follows;

Output Description	Comments	Recipient
Maximum time for borrowing books	The librarian determines at least two weeks for borrowed books	Librarian
DateReturned	This flow is initiated when borrower comes to return books.	Borrower
Daily workday List	At start of each workingday the librarian his typical workday.	Librarian
Average length of checking books	At the end of each semester this report is produced and sent to the management of the college	Librarian
Procedures that happen when student didn't return books on due time	The dean decide each student pays one hundred baisa if he\she didn't return books on due time.	Dean
Procedures that happen when teacher and employee didn't return books on due time	The dean decide each teacher or employee pays two hundred baisas if he\she didn't return books on due time	Dean

In reality of course there would be far more input and output flows but the list provided above is sufficient to explain the concepts of Data Flow Modelling. We will simplify the process yet further by only considering inputs (1) & (3) and outputs (6) & (7). Once the inputs and outputs have been identified they can be easily represented in a very simple DFD called Context Diagram. A context diagram represents the whole of the system as one process box. In some books an example context diagram appear bellow:

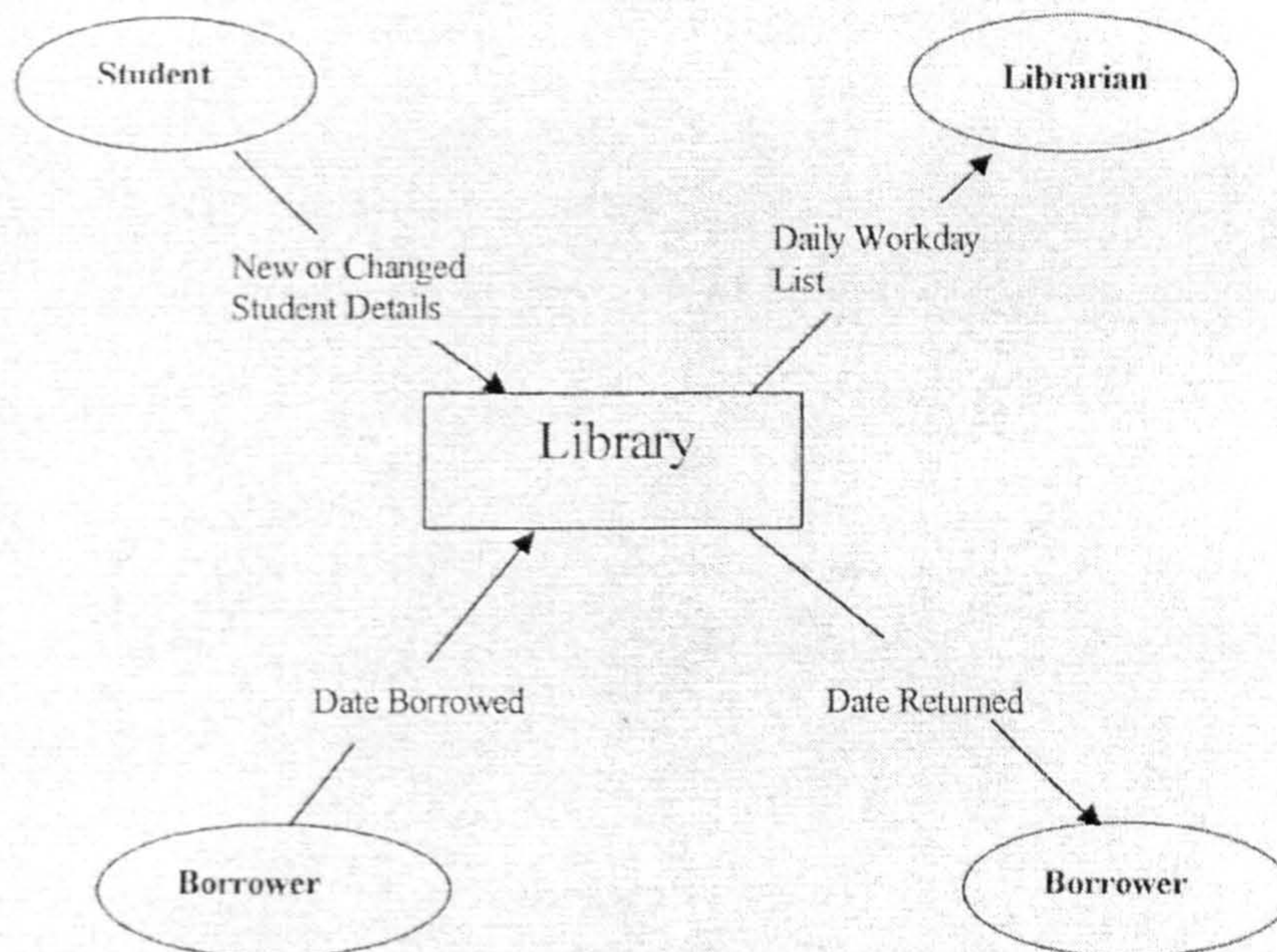


Figure 1.1 The Library Context Diagram

× Step 2 & 3

The second and third steps begin construction of the Level 1 DFD by creating a process to handle each incoming data flow and a process to generate each output data flow.

These steps are illustrated bellow:

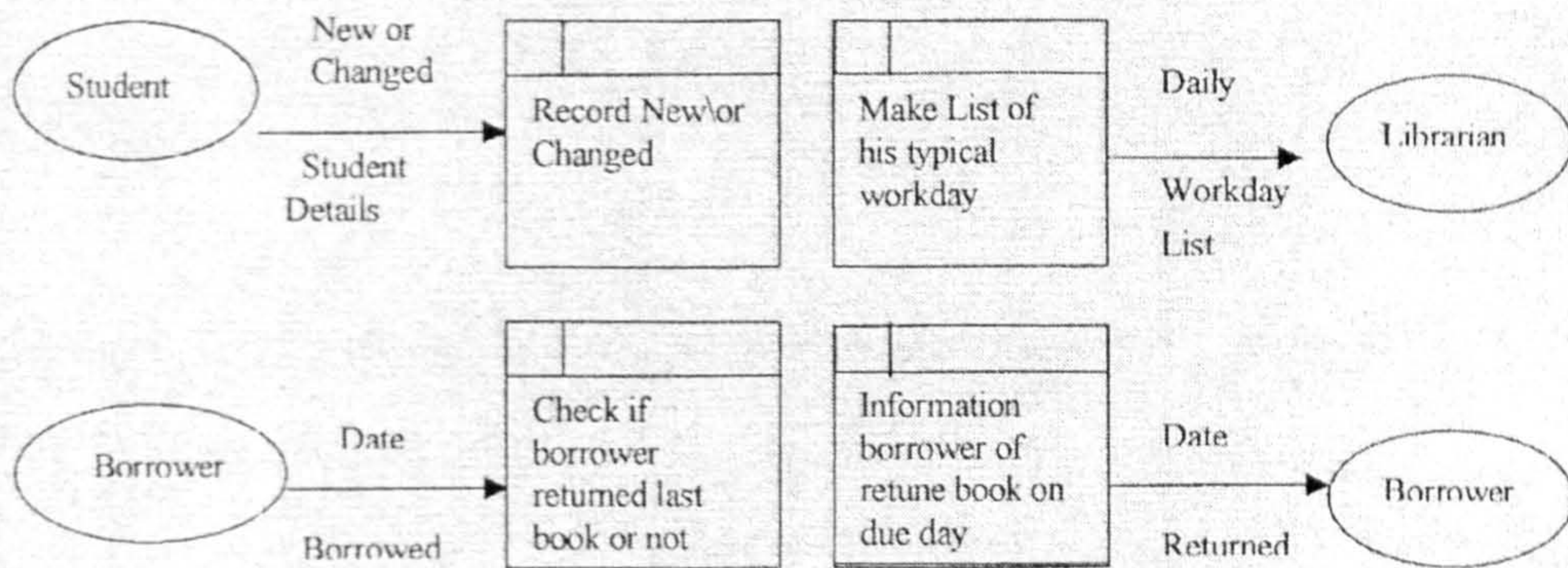


Figure 1.2 Library 1 st Draft Level 1 DFD

× Step 4

Steps 2 & 3 are mechanical, step 4 requires a bit more thought. Essentially step 4 involves looking at process in turn and identifying what information is required to be read in (input data flows) and what information needs to be created, updated or deleted (output data flows), figure 1.3 illustrates this process in action.

× Step 5

This step involves rationalising the level 1 DFD so that it includes 6-10 processes (this may be done by combining and/or splitting processes; In this assignment we can't use this step because there are not duplication in external entities.

× Step 6

The purpose of a level 1 DFD is to provide a simple overview of a complete system. Data Diagrams can also be used to show detailed processing requirements. To show this detail process in a level 1 DFD has own Level 2 DFD.

A example Of A level 2 DFD is shown in figure 1.4

When drawing level 2 DFDs it is quit normal to realize that you have missed things from level 1 DFD. If this is the case then you need to backtrack and make any necessary corrects A further point is that some very complex systems require the level 3 DFDS. These are constructed in exactly the same as level 1 & 2 DFDS.

× Step 7

The final step is review the DFD set against the documented requirements and make any last minute adjustments. At this stage the documentation is likely to consist of fairly simply text descriptions, processes, data stores, externals and data flows. The documentation becomes more refined as analysis proceeds in to design/ specification.

When the process is complete the next step is to document the lowest level process using Input, Output, Process Specifications, thus the use of techniques like structure charts decision tables tends to cross the border between analysis and design (in ill-defined border in any case).

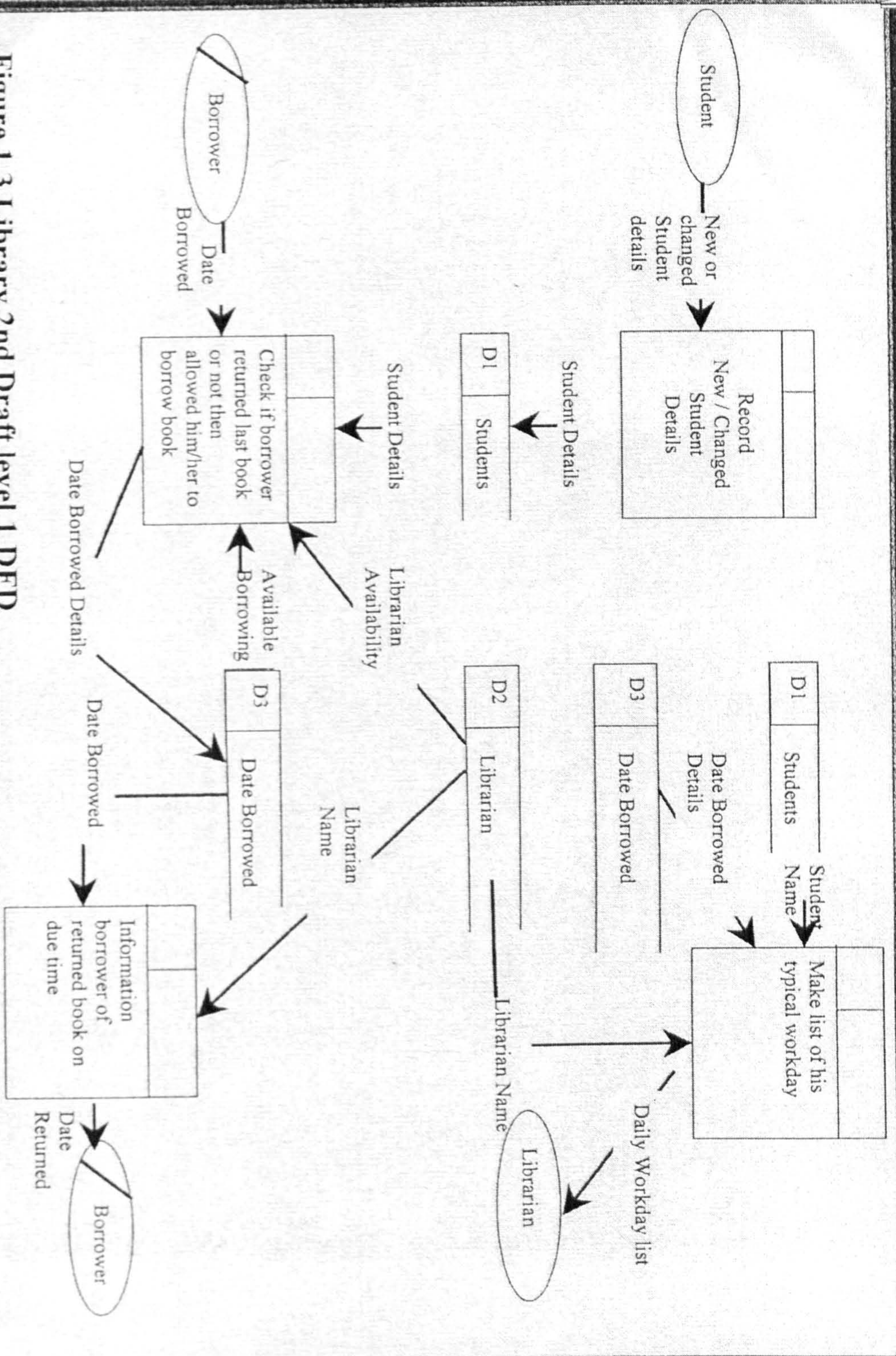


Figure 1.3 Library 2nd Draft level 1 DFD

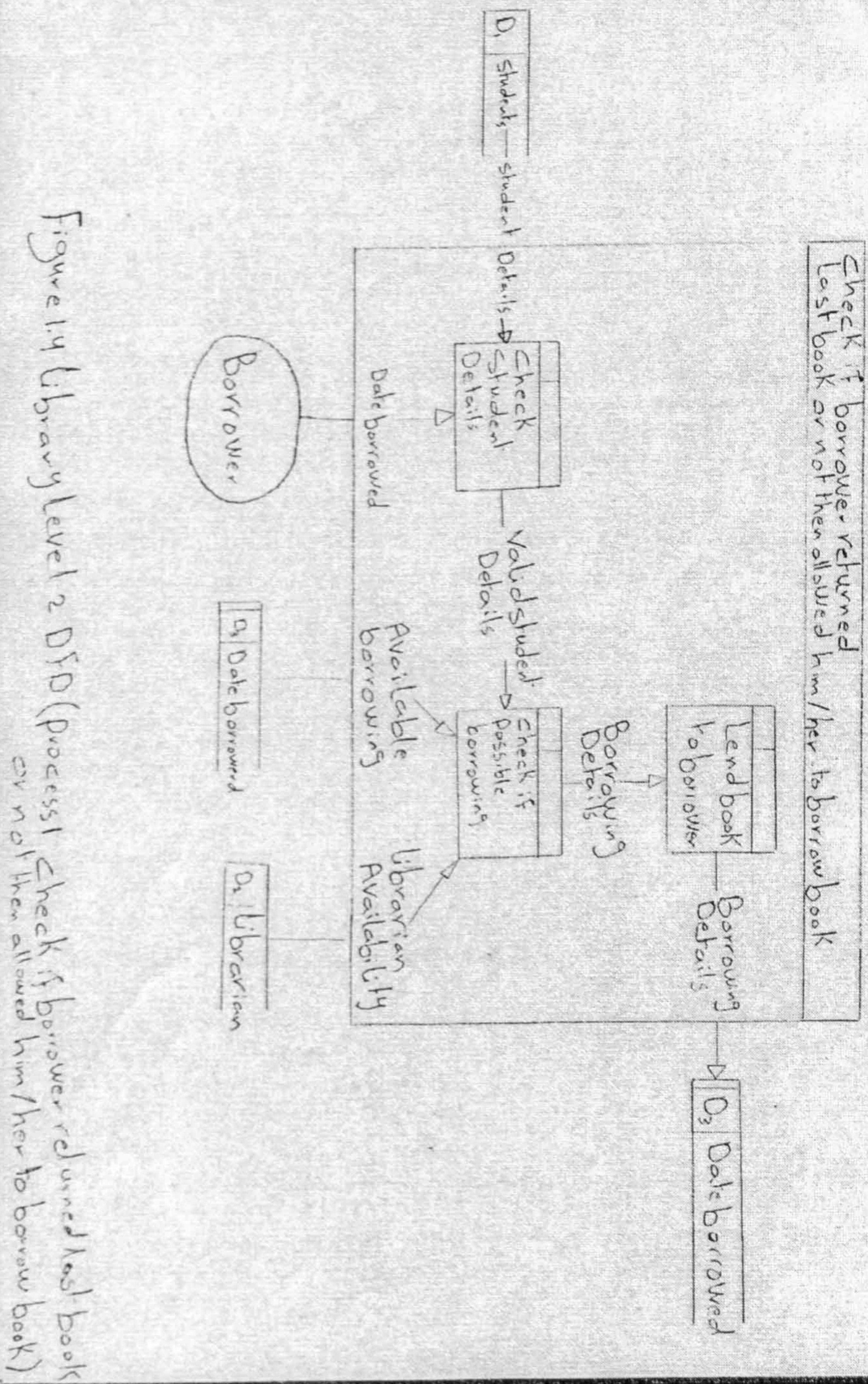


Figure 1.4 Library Level 2 DFD (Process 1 Check if borrower returned lost book or not then allowed him/her to borrow book)

INTERVIEW

1. What is your name?

Hamdan Sulaiman Al-Zadjali

2. What is your job?

Librarian

3. Could you please describe your typical workday?

Borrowing books to user.
- Return books from borrower.
- Classification, Arrangement and cataloguing the books in the library.
- Give Information, Data to user.

4. Who borrow books from a library?

Students, teachers and other employees in the college.

5. What information do you take from a student when he comes to borrow books?

Name, ID card Number - Department.

6. What information do you take from teaching staff and other employees in the college when they borrow books?

Name - Department - Signature.

7. What information do you keep about the books?

Title - Author - Serial No - Classification No.

8. What type of books do you lend them?

All the books Except - Dictionary and Encyclopedia.

9. What type of books that you didn't lend them?

Dictionary and Eucyclapedia.

10. What facilities does that ministry give to the college for the books in a library?

The Books

11. How many days can borrowed book to keep?

Two weeks

12. How many books can students, teaching staff and other employees of college borrow?

Two Book- in Two weeks

13. Do you do the same way when teaching staff or employees didn't give books on due time. If answer No please give the answer?

All pay (200 Pizes) in such case.

14. When do you make chikings how many-days take to make it?

Two time in the one year.

15. Are there any things else you think I should know? If yes what are there?

Nothing.

1/2


ITIB

QUESTIONNAIRE

1. Is the borrowing book system:

- Computerized
- Manual

*If manual, Why?

2. If you use computer, what Programming application do you use?

- MS-Word
- MS-Access
- MS-Excel
- Other
- Nothing

3. Who can borrow books from a library, Please choose the answer:

- Students
- Teaching staff
- Student
- Students and teaching staff
- Other staff of the college
- Students, teaching staff and other staff of the college

4. What are the most books that students borrow from a library?

Technical books and Reference books

5. In your opinion, what percentage of books is borrowed from library per year?

The student will be not happy (100%)
very delay.

6. Are the students responsible for returning book in a determined date?

yes

7. Lending borrowed books to others:

- Allowed
- Not allowed

8. If the borrower lost or spoilt book does he/she :

- Returns book only
- Doesn't return it but pays price or repair costs
- Returns book and pays price or repair costs

9. If the borrowed didn't return books on due day, choose one of those procedure you:

- Don't ask him to return book
- Ask him to return book
- Ask him to return book and pays money for each day he late:

10. If the borrower continually delays returning books although of procedure taken. Do you allow him to borrow books again from library?

- Yes
- No

11. How is processing done in the library system?

- classification, Arrangement and Cataloguing. The book
- Processing records.

12. Do you have any additional comments or recommendations to improve the borrowing book system in library?

- Yes
- No

