TOWARDS ENHANCING ESP PRACTITIONERS QUALIFICATIONS THROUGH IMPLEMENTING IN-SERVICE TEACHER TRAINING PROGRAMME: AN ACTION RESEARCH ON THE NEWLY APPOINTED ESP PRACTITIONER AT THE PHYSICS DEPARTMENT OF ABOU-BEKR BELKAID UNIVERSITY, TLEMCEEN

Dissertation Submitted to the Department of English Language in Candidacy for the Degree of Doctorate in ESP.

Presented by: Ms. MEBITIL Nawal

Supervised by: Dr. BELMEKKI Amine

Board of Examiners

Dr. H. HAMZAOUI  Prof President (University of Tlemcen)
Dr. A.BELMEKKI MC ‘A’ Supervisor (University of Tlemcen)
Dr. A. OUERAD MC ‘A’ External Examiner (University of S. Belabbes)
Dr. N. KIES MC ‘A’ External Examiner (University of S. Belabbes)
Dr. H. YAHIAOUI MC ‘A’ External Examiner (University of Mascara)
Dr. N. MOUHADJER MC ‘A’ Internal Examiner (University of Tlemcen)

Academic Year: 2015
To my parents for their continuous encouragement and support.

To my brothers Ouassini, Mourad, Mohammed and my niece Israe.

To my friends.
ACKNOWLEDGMENTS
Acknowledgements

Many people have helped me along the way in developing and implementing this research work.

At first, I would like to thank Dr. Belmekki for his direction, assistance, guidance, professional advice and his interminable help.

Prof. HAMZAOUI must also be given special thanks for her valuable support for almost a decade.

It is substantively essential to acknowledge Prof. Thorold MAY, University of AUSTRALIA, Prof Barbara ARIZTI MARTIN, Dr. Maria Jose Luzon, University of ZARAGOZA, Spain, Dr. Brian BRENAN the head of the IHBARCELONA, Prof. KAY WESTERFIELD, University of OREGON, USA for their generosity because they have always been and surely will always there to answer that long list of emails.

My deepest gratitude goes to Dean of the faculty of Exact Sciences Prof TABETI for his everlasting and unconditional support.

I am overwhelmed with gratitude to the jury members: Prof H. HAMZAOUI, Dr. A. OUARRAD, Dr. H. YAHYAOU, Dr. N. KIES, Dr. N. MOUHADJER for providing this work with valuable comments and useful insights.

I wish to express my appreciation towards, the trainers’ team ‘my teachers’:

- Prof. K. KORSO.
I am grateful to all the ESP teachers ‘trainees’ of the Physics department of Tlemcen University, who accepted to take part in this study and provided me with useful insights.

Last but not the least, I want to say: “THANK YOU” to my best ever seen friends: Dr. Sayed Qayuimi and his wife Prof. Marina.

Finally, I am grateful to you Aouicha for your help, valuable insights, useful comments, and worthy criticism.
ABSTRACT
This research work attempts to enhance ESP practitioners’ professional qualifications to respond positively to the demands of the ESP teaching/learning situation. It is recognized that teachers’ preparations, besides their qualifications, entail issues which are not exclusive to Algeria. Teachers around the globe face a set of obstacles which prevent them generally from functioning adequately in their target situation. Regardless of this, any newly appointed teacher is supposed to have enough knowledge, preparation, skills and motivation to start his long journey in the land of instruction. Nevertheless those fresh teachers, in most cases, are in great need of receiving real assistance, novel ideas and thorough training. Consequently, the actual work addresses this last point, i.e., training the newly recruited ESP teachers in the physics department of Tlemcen University in the hope of better coping with the expectations of their learners. To conduct the study, two semi-structured interviews were carried out before and after the training with the eight ESP practitioners; in addition, pre and post-tests were also administered with the same sample in order to evaluate their basic knowledge in physics. A third instrument ‘questionnaire for learners’ was also used to gain more in-depth information about the situation. The findings of the study proved the usefulness of the training and called for the implementation of such training in other department within the same faculty, i.e., exact sciences and even at other faculties.
TABLE OF CONTENT

DEDICATION I
ACKNOWLEDGEMENTS III
ABSTRACT VI
TABLE OF CONTENTS VII
KEY TO ABBREVIATIONS XVI
LIST OF TABLES XVIII
LIST OF DIAGRAMS XIX
LIST OF BAR-GRAPHS XX
LIST OF PIE-CHARTS XXI
LIST OF FIGURES XXII

Chapter One

INTRODUCTION AND CONTEXT OF THE STUDY

1.1. INTRODUCTION 2
1.2. BACKGROUND OF THE STUDY 3
1.3. ELT IN ALGERIAN HIGHER EDUCATION 4
1.3.1. ESP Teaching Situation at Tlemcen University 5
1.3.2. EST Teaching in the Physics Department 6
1.4. STATEMENT OF THE PROBLEM 7
1.5. PURPOSE OF THE STUDY 8
1.5.1. Research Questions and Hypotheses 9
1.6. SIGNIFICANCE OF THE STUDY 10
CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION 19
2.2 ESP INTERPRETATIONS 19
2.3 ESP Vs GENERAL ENGLISH 22
2.4 ESP GENESIS 23
    2.4.1 Demands of the Brave World 24
    2.4.2 Revolution in Linguistics 25
    2.4.3 Focus on the Learner 25
2.5 ESP EVOLUTION 26
    2.5.1 Register Analysis 26
    2.5.2 Rhetorical or Discourse Analysis 28
    2.5.3 Target Situation Analysis 29
    2.5.4 Skills and Strategies 30
    2.5.5 The Learning Centred Approach 31
2.6 ESP BRANDS 32
    2.6.1 English for Academic Purposes 33
    2.6.2 English for Occupational Purposes 33
    2.6.3 EAP Vs EOP 35
    2.6.4 English for Science and Technology 35
2.7 ESP COURSES CRITERIA 36
2.8 TEACHERS EDUCATION, TRAINING AND DEVELOPMENT 38
2.8.1. Teacher Training

2.8.1.1. Types of Teacher Training

2.8.1.1.1. Pre-Service Teacher Training

2.8.1.1.2. In-Service Teacher Training

2.9. Teachers’ Qualifications

2.9.1. Language Competence

2.9.2. Pedagogic Competence

2.9.3. Language Awareness

2.9.4. Specialised Knowledge

2.10. ESP Teachers’ Tasks

2.10.1. The ESP Practitioner as a Teacher

2.10.2. The ESP Practitioner as a Course Designer and Material Provider

2.10.3. The ESP Practitioner as a Collaborator

2.10.4. The ESP Practitioner as a Researcher

2.10.5. The ESP Practitioner as an Evaluator

2.11. Prominent Approaches to ESP Teaching

2.11.1. Content Based Approach

2.11.2. Task Based Approach

2.11.3. Lexical Based Approach

2.11.4. Content and Language Integrated Learning

2.12. A Review of ESP Teacher Training Programmes Worldwide

2.12.1. National/ Public Training Courses

2.12.1.1. EST Teacher Training Course Chile

2.12.1.2. Minimal Teacher Training for ESP Italy

2.12.1.3. Russian Education Support Project on Specialist English RESPONSE

2.12.2. Private Courses at Private Institutions

2.12.2.1. Introduction to Teaching English for Technical purposes ITELP, Germany
2.12.2.2. Certificate in International Business English Training, Hungary 68
2.12.2.3. The Business English Teachers’ Course, Spain 71
2.13. CONCLUSION 75

CHAPTER THREE

RESEARCH METHODS AND PROCEDURES

3.1. INTRODUCTION 79
3.2. THE RESEARCH METHODOLOGY 79
3.2.1. Action Research Overview 79
3.3. THE DESIGN OF THE STUDY 87
3.4. SAMPLING 89
3.5. THE ACTION RESEARCH PROJECT 97
3.5.1. The Pre-Training Phase 97
3.5.1.1. The Physics English Teacher Course Overview 98
3.5.1.2. Course Aims and Objectives 98
3.5.1.3. Course Materials 99
3.5.1.4. Course Syllabus 99
3.5.2. The Training Phase 101
3.5.3. The Post-Training Phase 102
3.6. INSTRUMENTATION 102
3.6.1. Interview 103
3.6.2. Test 109
3.6.3. Questionnaire 115
3.7. DATA ANALYSIS METHODS 119
3.8. CONCLUSION 120
CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION

4.1. INTRODUCTION 123

4.2. DATA ANALYSIS AND INTERPRETATION 123

4.2.1. The Pre-Training Phase Results 123

4.2.1.1. Pre-Training Interview Results 123

4.2.1.2. ESPTTP Evaluation Feedback Form Results 142

4.2.1.3. Pre-Training Test Results 153

4.2.2. The Training Phase Results 158

4.2.3. The Post-Training Phase Results 158

4.2.3.1. The Post-Training Interview Results 159

4.2.3.2. Learners’ Questionnaire Results 170

4.2.3.3. Post-Training Test Results 181

4.3. SUMMARY OF THE MAIN FINDINGS 188

4.4. CONCLUSION 189

CHAPTER FIVE
PRE-SERVICE TEACHER TRAINING: A PATHWAY FOR IMPROVING ESP TEACHERS PREPARATION

5.1. INTRODUCTION 195

5.2. PRE-SERVICE TEACHER TRAINING COURSE OVERVIEW 196

5.3. PRE-SERVICE TEACHER TRAINING COURSE AIMS 197

5.4. PRE-SERVICE TEACHER TRAINING COURSE OBJECTIVES AND FINAL OUTCOMES 197
5.5. COURSE MATERIALS

5.6. POSSIBILITIES OF EMPLOYMENT

5.7. STUDY UNITS

5.8. FACILITATORS

5.9. TRAINEES EVALUATION

5.10. RECOMMENDED READING

5.11. DETAILED PROGRAMME

5.11.1. Semester One

5.11.1.1. Module One: Dilemmas in ESP Teaching

5.11.1.2. Module Two: Needs Analysis and Identification

5.11.1.3. Module Three: Syllabus Design

5.11.1.4. Module Four: Applied Linguistics and TEFL

5.11.1.5. Module Five: Research Methodology

5.11.1.6. Module Six: Research Methods in ESP

5.11.1.7. Module Seven: Discourse Analysis

5.11.1.8. Module Eight: Technical Translation

5.11.1.9. Module Nine: ICT

5.11.2. Semester Two

5.11.2.1. Module One: Academic Writing

5.11.2.2. Module Two: Discourse Variation in Professional Communities

5.11.2.3. Module Three: Course Design

5.11.2.4. Module Four: Teacher
Development

5.11.2.5. Module Five: Research 221

5.11.2.6. Module Six: Case Studies in ESP 222

5.11.2.7. Module Seven: Intercultural Communication 224

5.11.2.8. Module Nine: Basic Knowledge in Science and Technology 225

5.11.2.9. Module Ten: The Use of ICT in ESP Teaching 226

5.11.3. Semester Three 228

5.11.3.1. Module One: Working from Authentic Materials 228

5.11.3.2. Module Two: Evaluation in ESP 230

5.11.3.3. Module Three: Programmes Management in ESP 231

5.11.3.4. Module Four: Errors Analysis and Learners Feedback 232

5.11.3.5. Module Five: Basic Knowledge in Engineering 234

5.11.3.6. Module Six: Research Methodology 235

5.11.3.7. Module Seven: Basic Knowledge in Business 236

5.11.3.8. Module Eight: Development of a Research Proposal 238

5.11.4. Semester Four 239

5.11.4.1. Module One: Dissertation Writing 240

5.11.4.2. Module Two: Teaching under 240
Supervision

5.12. CONCLUSION 241

CHAPTER SIX
THE WAY FORWARD

6.1. INTRODUCTION 244
6.2. AN OUTLOOK ON THE STUDY 244
6.3. LIMITATIONS 247
6.3.1. Participants 247
6.3.2. Financial Support 247
6.3.3. Methodology 248
6.3.4. Time 249
6.4. IMPLICATIONS FOR FURTHER RESEARCH 249
6.5. QUALITY TEACHER PREPARATION 249
6.6. THE WAY FORWARD 252

BIBLIOGRAPHY 255

APPENDICES 266

Appendix ‘A’: Course Syllabus 267
Appendix ‘B’: Instructions for Providers of EST Training …… 276
Appendix ‘C’: Pre-Training Interview ……………………………… 279
Appendix ‘D’: ESP In-service Teacher Training Programme Review Checklist ……………………………………………………
Appendix ‘E’: Pre-Training Test ……………………………………… 283
Appendix ‘F’: Post-Training Interview ……………………………… 285
Appendix ‘G’: Post-Training Test ……………………………………… 286
Appendix ‘H’: Learners Questionnaire ……………………………… 288
Appendix ‘I’: Pre-Training Self-Access Materials…………………. 293
Appendix ‘I’: Professor Thorold Seminar Tasks…………………. 295
Appendix ‘J’: Sample of Interviewees Answers (Pre-Interview) 304

Appendix ‘K’: Sample of Interviewees Answers (Post-Interview) ................................................................. 304

Appendix ‘L’: Sample of ESP In-service Teacher Training Programme Review Checklist Answers ...... 310

Appendix ‘M’: Master Bibliography........................................... 312
KEY TO ABBREVIATIONS

**EAP**: English for Academic Purposes

**EBE**: English for Business Purposes

**EFL**: English as a Foreign Language

**EGP**: English for Global Purposes

**ELT**: English Language Teaching

**EOP**: English for Occupational Purposes

**ESL**: English as a Second Language

**ESP**: English for Specific Purposes

**ESPTTP**: English for Specific Purposes Teacher Training Programme

**EST**: English for Science and Technology

**FL**: Foreign Language

**GE**: General English

**L1**: First Language

**L2**: Second Language

**LSP**: Languages for Specific Purposes

**NR**: Number of Respondents

**P**: Percentages
TEFL: Teaching English as a Foreign Language

TT: Teacher Training

TTP: Teacher Training Programme

UK: United Kingdom

USA: United States of America
LIST OF TABLES

Table 2.1. Traditional Vs Visionary Professional Development.. 42
Table 3.1. Selected Steps and Activities of Action Research ..... 85
Table 3.2. Quantitative Vs Qualitative Research Approaches .... 88
Table 3.3. Major Sampling Schemes in Mixed-Methods Approach......................................................... 95
Table 3.4. Sample Involved in the Study ......................... 100
Table 3.5. Course Syllabus................................................. 111
Table 3.6. An Overview of the Main Advantages and Drawbacks of the Three Types of Interviews ......................... 119
Table 3.7. A Sample of Items Used in the ESPTTP Evaluation Form ................................................................. 131
Table 4.1. Key-Concepts in Test Scoring .............................. 166
Table 4.2. Trainees Scores in the Pre-Training Test .............. 167
Table 4.3. Descriptive Statistics ........................................... 168
Table 4.4. Summary of the Trainees Pre-Training Test Scores... 169
Table 4.5. Trainees Scores in the Post-Training Test ............. 195
Table 4.6. Descriptive Statistics ........................................... 197
Table 4.7. Summary of the Trainees Post-Training Test Scores... 197
Table 5.1. The First Semester Study Units ............................ 213
Table 5.2. The Second Semester Study Units ...................... 214
Table 5.3. The Third Semester Study Units ....................... 214
Table 5.4. The Fourth Semester Tasks ............................... 215
LIST OF DIAGRAMS

Diagram 2.1. : Subdivisions of ESP……………………………35

Diagram 2.2. : Subdivisions of ESP…………………………………36

Diagram 2.3. : Teachers’ Qualifications……………………….46

Diagram 2.4. : Roles of the ESP practitioner………………….50

Diagram 2.5. : Components of ESP Teacher Training Programme Chile………………………………………………………….63

Diagram 3.1. : Action Research Model …………………..84

Diagram 3.2. : The Overall Design of the Study……………91

Diagram 3.3. : Trainers Profile………………………………100

Diagram 3.4. : Types of Tests…………………………………124
<table>
<thead>
<tr>
<th>Bar-Graph 4.1.</th>
<th>Trainees Scores in the Pre-Training Test</th>
<th>167</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar-Graph 4.2.</td>
<td>Class Materials</td>
<td>185</td>
</tr>
<tr>
<td>Bar-Graph 4.3.</td>
<td>Preparation for Classes</td>
<td>185</td>
</tr>
<tr>
<td>Bar-Graph 4.4.</td>
<td>Time Management</td>
<td>186</td>
</tr>
<tr>
<td>Bar-Graph 4.5.</td>
<td>Stimulation of Learners Interest</td>
<td>187</td>
</tr>
<tr>
<td>Bar-Graph 4.6.</td>
<td>Responsive to Students Problems</td>
<td>188</td>
</tr>
<tr>
<td>Bar-Graph 4.7.</td>
<td>Teachers Performance</td>
<td>189</td>
</tr>
<tr>
<td>Bar-Graph 4.8.</td>
<td>The Course Content</td>
<td>191</td>
</tr>
<tr>
<td>Bar-Graph 4.9.</td>
<td>The Course Materials</td>
<td>192</td>
</tr>
<tr>
<td>Bar-Graph 4.10.</td>
<td>Trainees Scores in the Post-Training Test</td>
<td>200</td>
</tr>
<tr>
<td>Bar-Graph 4.11.</td>
<td>Pre-Test and Post-Test Scores Comparison</td>
<td>192</td>
</tr>
</tbody>
</table>
LIST OF PIE-CHARTS

Pie-chart 4.1. Programme Overview ........................................... 156
Pie-chart 4.2. Programme Objectives ........................................ 157
Pie-chart 4.3. Programme Components ................................. 157
Pie-chart 4.4. Objectives of Each Module ............................. 158
Pie-chart 4.5. Tasks of Each Module .................................... 159
Pie-chart 4.6. The Organization of the Programme Sessions … 160
Pie-chart 4.7. Programme Structure ...................................... 161
Pie-chart 4.8. Time Allocation for the Programme.................. 161
Pie-chart 4.9. Time Allocation for Each Component............. 162
Pie-chart 4.10. The Adequacy of the Pre-Reading Materials..... 163
Pie-chart 4.11. The Choice of the Staff ................................. 163
Pie-chart 4.12. Testing Tools ............................................... 164
Pie-chart 4.13. Respondents Rate of the ESPTTP Experience … 173
LIST OF FIGURES

Figure 2.1. An ESP Approach to the Design of Teacher Training Courses 76

Figure 4.1. First Question Components 138

Figure 4.2. Respondents Comments 175
CHAPTER ONE

INTRODUCTION AND CONTEXT OF THE STUDY
CHAPTER ONE

INTRODUCTION AND CONTEXT OF THE STUDY

1.1. INTRODUCTION
1.2. BACKGROUND OF THE STUDY
1.3. ELT IN ALGERIA
   1.3.1. ESP Teaching Situation at Tlemcen University
   1.3.2. EST Teaching at the Physics Department
1.4. STATEMENT OF THE PROBLEM
1.5. PURPOSE OF THE STUDY
   1.5.1. Research Questions and Hypotheses
1.6. SIGNIFICANCE OF THE STUDY
1.7. DEFINITION OF KEY-TERMS
1.8. DELIMITATION OF THE STUDY
1.9. STRUCTURE OF THE THESIS
1.10. CONCLUSION
1.1. Introduction

It is widely acknowledged that teaching quality, and then, teachers’ professional growth should be at the heart of any educational reform. Today most world institutions, including universities, are continuously looking for ways to improve their teachers’ qualifications. In this regard, teaching/learning performance for them means to be a highly qualified teacher who is well-equipped with a set of competencies, and who is trained to handle different situations and manage his or her classes well. He is required to be an active member in the teaching community where it is supposed that he will contribute to improving his learners’ achievements in a wide range of areas. In this dissertation the focus is mainly placed upon preparing the teacher to be fully involved in teaching English for specific purposes.

As the title of the current work suggests, the study attempts to enhance ESP practitioners’ professional qualifications to respond positively to the demands of the Algerian teaching/learning situation. It is recognized that teachers’ preparations, besides their qualifications, entail issues which are not exclusive to Algeria. Teachers around the world face a set of obstacles which prevent them generally from functioning adequately in their target situation. Regardless of this, any newly appointed teacher is supposed to have enough knowledge, preparation, skills and motivation to start his long journey in the land of instruction. Nevertheless those fresh teachers, in most cases, are in great need of receiving real assistance, novel ideas and thorough training. Consequently, the actual study addresses this last point, i.e., training the newly recruited ESP teachers in the physics department of Tlemcen University in the hope of better coping with the expectations of their learners.
Therefore, this chapter tries to provide the reader with a comprehensive overview of this research study. To achieve this end, the researcher has started by locating this research work within its theoretical framework where the following aspects have been tackled: background to the study, statement of the problem, purpose behind choosing this area of research and hence, this issue. Moreover, it is essential to state the pertinent research questions in order to set a context for the main hypothesis. To explore the possible contribution of this particular research project to the general field of teaching and learning English for specific purposes and teachers’ preparation is important in this first part of the work. Of course, delimitations of the study must also be made explicit. To conclude, the researcher has also provided the reader with an outline of the thesis structure. This has been mainly done to facilitate the readers’ journey through this work.

1.2. Background of the Study

Based on the findings of the research work which is entitled “An Exploration of the Main Difficulties, Challenges and Requirements of the ESP Teaching Situation in Algeria: the Case of ESP Teachers at Abou-Bekr Belkaid University, Tlemcen” that has been broadly carried out by the researcher during the period (2009-2011), a set of difficulties and preoccupations have been identified at different levels, taking in various dimensions which devolve around the language teacher. That is, the language teacher is considered as a key-parameter in the teaching/learning process.

Accordingly, the most important issues facing our General English language teachers who are recruited to teach ESP courses are as follows:
Lack of specialised knowledge of the related field of teaching;
lack of ESP teaching methodology in the English department;
lack of specialised teacher training programmes at both pre- and in-service levels.

Apparently, the third factor is considered to be the most prominent issue a language teacher may complain about. Teachers’ inadequacy for such a position, i.e., teaching ESP and being ill-prepared for the area they are teaching, can be linked to this fact. This view is supported by that of Swales (1985:214) who strongly emphasizes that “one of the constraining factors to this progress is the lack of ‘specialised teacher-training’”. Therefore, this research acts as a response to the main prominent hindrances cited above which need to be urgently dealt with.

1.3. ELT in Algeria in Higher Education

Algeria, as in the rest of the globe, endeavours to implement and therefore, develop the use of technical English to insure better communication, as well as easy access to knowledge for students, workers, researchers, etc. At the tertiary level, English is introduced in different curricula in different departments nationwide. The focus may be as a main subject in the English department where students are required to attend the following modules: Literature, Civilization, Linguistics, Phonetics, Oral Expression, Written Expression, TEFL and so forth. Alternatively, English may simply be an additional but ‘compulsory’ module. In the Tlemcen English department, the majority of teachers who are in charge of these courses are full-time teachers who hold either a Magister or Doctorate degree. Part-time teachers can
also teach. They often hold a Licence degree in English, and are either first-year or second-year Magister students.

As mentioned above, apart from the English Department, English is also introduced in other departments and it holds the status of a ‘compulsory’ module. Students who belong to one of the following specialties: Mathematics, Physics, Chemistry, Sciences, Engineering, Economics, Political Sciences, are also required to follow ESP courses, depending on their area of research and their needs. Hence different ESP courses are provided nationwide under different labels. The most common ones are: EST ‘English for Science and Technology’, EBE ‘English for Business and Economics’, and ESS ‘English for Social Sciences’. As a result, English as a course module is studied along with other current student modules. The vast majority of these teachers are part-time teachers who are engaged in other situations and who have other duties, besides their permanent jobs such as teaching at other departments. For example, they may be employed by the English Department, or teaching at other levels, or in a secondary or middle school.

1.3.1. ESP Teaching Situation at Tlemcen University

The need to learn English is also associated with the need to form language teachers who are able to teach English either for General Purposes or for Specific Purposes. At Tlemcen University, the situation under investigation, where a rapid growth and expansion has taken place in recent years, English is taught in a separate department as a main subject. In this department, and after accomplishing either four years (in the classical system) or three years (in the LMD system) students are rewarded with a licence degree in English. With this they are allowed to work as English teachers. Hence, once they get a position as English language teachers they hold the status of EFL
teachers. In practice, during their general training, they receive no guidance on ESP teaching methodology. Therefore, one may say that an ESP teacher was originally a General English teacher who was recruited to teach ESP courses, and by which added skills he can apply for positions in different departments.

This research work begins with the premise that ESP is faced with a lot of contextual and pedagogical hindrances even though there is worldwide acknowledgment of the importance of English and even though ESP is one of the most prominent fields of ELT. Two features of ESP teaching are especially notable at Tlemcen. Firstly, the time which is allotted for English teaching is only a period of one and a half hours per week, and is often timetabled as the last course of the day, or even the last course of the week. The second common feature is the nature of the job: language teachers, in most cases, are only part-time practitioners.

1.3.2. EST Teaching Situation in the Physics Department

In the Physics department English is introduced as a compulsory module. Students are required to sit for EST classes and sit for examinations at the end of each semester, besides tests throughout the academic year. Learners are also invited to submit works and present papers during the English course. With the new educational reforms of 2013 provided by the ministry of higher education and scientific research, English has been introduced at the graduate level, or more precisely in the first-year Sciences and techniques field within the physics department. Trainees are supposed to attend the EST lecture once a week for a period of one and a half hours.

Apart from the graduate level, English is taught also at the Master and Doctorate levels. While undertaking the EST classes, Physics’ students are supposed to learn English in meaningful contexts.
To be instructed in English using themes of sciences, techniques and physics is regarded as the focus of the faculty and its dean to promote learners’ attendance, motivation and hence, achievements. This could be mainly explained by the fact that English starts to be the primary technical language in the faculty of Exact Sciences, and especially in the Physics department where almost all the data trainees may need to further their studies are provided in the English language.

The core of the current work is the language teachers in the Tlemcen physics department. It is therefore pertinent to note that before the reforms of 2013 subject specialists were the only instructors who had been asked to run ESP courses. Those field specialists are, in most cases, expert in the area of sciences in general and physics in particular. They have earned their degrees from either American or British universities, which means that they have been taught their speciality in English. This would explain the fact that they have mastered the terminology of their field and which most students are also supposed to have a full command of. As a moderate attempt to fulfil the current research work, the researcher has organised a series of meetings with the head of the physics department and the dean of the faculty of exact sciences. The aim was to explain the main rationale of the project and to negotiate recruiting part-time language teachers as ESP instructors to carry on the work.

1.4. Statement of the Problem

Evaluation and assessment only have real value as processes after metrics for determining progress, success or failure in any programme have been settled upon. In this vein, our central issue is teaching and learning a foreign language, but also more narrowly, for specific purposes. While trying to assess the progress of ESP as a
principal field of ELT, it is common to find that most researchers who are concerned with rating the growth of ESP instruction relate the failure of ESP courses to the lack of teacher training. According to them, being *ill-prepared* in the area they are engaged in may constitute the first reason for such a failure. At a lower level, they relate course collapse to the idea that ESP teaching is regarded as being an inherently difficult task for those who lack serious ESP teacher-training.

For the vast majority of language teachers, the shift from a general language environment to a more specific one is their first nightmare. This could be clearly seen in areas where sciences are promoted. In physics, chemistry, mathematics, language teachers are supposed to be engaged with adult students who, more or less, are master of their field of study. It is presumed that what these students require is the ability of their ESP instructors to respond constructively to their needs. Among those requirements, teachers are invited to answer questions related to the terminology of the field. This latter has been considered as a serious issue for most language teachers. To lack both knowledge of the field, and in-service teacher preparation could have a negative psychological effect on teachers. One outcome might be teachers’ hostility towards students’ field of specialism and a professional failure to properly monitor their classes. Most teachers, in this case, turn towards general English and grammar to disguise the gap between their own knowledge and preparation and their learners’ expectations.

### 1.5. Purpose of the Study

A better professional development outcome could be achieved through implementing what is theoretically known as an *in-service teacher training programme*. This latter can be achieved by attending
workshops and seminars through which ESP teachers are, more or less, assumed to cater for their own needs. Therefore the main aim of this study is to help ESP teachers who are already engaged in ESP teaching situations acquire a second field of expertise. That is, they have been and will be assisted to acquire specialised knowledge depending on the field they are taking part in. To meet this end, a set of seminars have been organised regularly and followed by a set of workshops to discuss teacher situations as insight gradually develops.

As a matter of fact, those seminars and workshops have not been limited solely to the acquisition of a specialised knowledge but might also lead to the improvement of the teachers’ professional skills for the areas in which they are teaching. This has been achieved through providing training for those teachers in other areas such as: ICT, ESP syllabus and curriculum design, ESP assessment, supervision and management. In summary, inclusive objectives of this research work are to help teachers to function more adequately in their target situation, i.e., physics, to respond positively to the demands of the faculty, and to satisfy the learners’ expectations.

### 1.5.1. Research Questions and Hypotheses

To achieve the aforementioned objectives, and for better teaching/learning professionalization, our research enquiries mainly fall on the following research questions:

- Does the theoretical training our Algerian ESP teachers have undergone while studying meet their professional needs?
- Do our ESP practitioners perform better when acquiring a second field of expertise?
To what extent does providing ESP practitioners with specialised in-service training help them function effectively in their target situation?

In hope to reach more or less adequate answers to the three above mentioned questions, the following hypotheses have been established:

1. Though our ESP teachers have undergone limited theoretical training in ESP, it still remains not enough for them as it does not meet their professional needs.

2. Acquiring a second field expertise is believed to be of value for our ESP practitioners. It may help them perform better while taking part in specialised language environments.

3. For ESP practitioners, to receive a range of specialised in-service trainings in different areas adjusted for their level of skill, may help them to function effectively in their target situations.

1.6. Significance of the Study

The actual project acts as a continuation of a research work the researcher conducted a number of years ago. The earlier work was a part of her magister thesis. The present study is an urgent response to the ESP teachers’ difficulties identified in that earlier study. The investigator has tried to focus on the organisation and delivery of a set of seminars and workshops presented for the benefit of ESP teachers at the faculty of Exact Sciences. In this sense, it is believed that the study will be of great help to those teachers. The opportunity to find ways to
cross a bridge between GE teaching and ESP teaching while acquiring a second field of expertise is one of the most important motives behind this investigation. To plan and organise in-service teacher training courses is known to help other teachers besides project managers and university researchers who conduct similar studies in their fields of interest. The research may assist both prospective and current teachers to reflect carefully upon the appropriate preparation they may need, and the techniques they should resort to insure ongoing professional development.

As a final consideration, this study has significance because of its potential contribution in those debates focusing mainly on understanding the real needs of those newly recruited ESP teachers in the Algerian context where French still mainly dominates all fields of language specialization. A better professionalization of our teachers, as well as better levels of achievement by our learners cannot be achieved unless a programme of such a nature is implemented, supported, discussed, reflected upon and carefully examined to fit our local context.

1.7. Definition of Key-terms

To avoid any misinterpretation of the terms that have been used in this study, which constitutes the core of the overall research project, a number of key concepts have been defined below;

a/ Teacher Training: One of the most intricate concepts, in this field of interest, has been briefly defined by Smith (2006:298) as “Preparation for teaching that enables the trainee to deal with predictable situations in the classroom.”
b/ Teacher development: According to Johnston (2003:95) the term is used in two rather different ways in the two professional contexts of Europe and North America:

- In North America: Teacher development is usually seen as something done by teacher educators and teacher trainers for (one might say) working teachers. It usually takes the form of in-service workshops, courses, summer institutes, and the like.

By contrast

- In Europe, in English Language Teaching (ELT) at least, teacher development is something that teachers themselves undertake and that is guided by the teachers concerned.

c/ Collaboration: Dudley-Evans and St John (1998:16) refer to collaboration as being “When there is some integration between specialist studies or activities and the language [being taught]”. According to them “the fullest collaboration is where a subject expert and a language teacher team-teach classes.”

d/ Cooperation: Dudley-Evans and St John (1998:16) say cooperation occurs “When the ESP teacher finds out about the subject syllabus in an academic context or the tasks the students have to carry out in a work or business situation.”

e/ Team-teaching: Based on its paramount importance, Richards et al (2002:544) maintain that team-teaching “is a term used for a situation in which two teachers share a class and divide instruction between them. Team-teaching is said to offer teachers a number of benefits: it allows for more creative teaching, allows teachers to learn through observing each other, and gives teachers the opportunity to work with smaller groups of learners.”
f/ Evaluation: According to Buller (2011) “is summative and results-oriented activity that measures the effectiveness of individual people, courses or programs; it helps the evaluator to decide whether the person or thing being evaluated is making the grade and bases a judgement on that decision.”

j/ Assessment: Buller (2011) goes a step further in defining the term assessment. According to him it “is a formative and process-oriented activity that determines whether entire programs are achieving an established set of goals and outcomes; when these objectives are not being met, assessment helps clarify how the program (not the performance of individual students, faculty members or administrators) should be modified.”

h/ Program Review: As the core of the current work is to review the program being implemented, the researcher has felt it useful to adopt Buller’s (2011) vision in defining the concept of ‘program review’ which “is a far broader process that raises questions not addressed by either evaluation or assessment… A solid program review process includes data obtained from both evaluation and assessment, but it also requires additional sources of information.”

i/ Professionalization and professionalism: These two concepts have been defined by Ivor (2003) in the following way: “Professionalization as concerned with promoting the material and ideal interests of an occupational group, in this case, teachers. Alongside this, professionalism is more concerned with the intricate definition and character of occupational action, in this case, the practice and profession of teaching.”
1.8. Delimitations of the Study

It is essential to establish a framework within which any research work can be put. The process of delimiting a framework entails identifying the main aims and objectives of the project and setting the boundaries of that study. Once a framework has been set the researcher has guidance while conducting that research, and the reader has a better understanding of the core of the investigation.

In the teaching/learning context, normally the pre-service teachers’ training sessions are considered to be the prime ingredient in the preparation of prospective teachers in any discipline. However the focus here has been on the delivery of training sessions for those teachers who are already engaged in ESP teaching situations. Hence, pre-service teachers’ training courses have not been within the scope of this study.

Even within the in-service teacher training course, a number of trainees have not been involved in the study. The rationale for such exclusion was that the present project was felt most likely to benefit only ESP instructors who had already undergone a theoretical pre-training phase in ESP, and who held a Magister in ESP. The third chapter will explain this matter further.

1.9. Structure of the Thesis

This research work has been divided into six chapters. This chapter is introductory. The second chapter explores the related literature about ESP and teacher training. The third chapter presents and describes the methodology that was used to conduct this study. It details the population of the study, the research design, and procedures that have been used while collecting and then analyzing the available data.
The fourth chapter attempts to analyse and interpret data which have been collected with a view to answering the primary research questions. The fifth chapter summarizes the findings of the research work while also making its limitations explicit, and points to future research. The last one acts as a concluding chapter.

1.10. Conclusion

In this first chapter, the researcher has presented the background of the study. The chapter briefly described the ELT situation in Algeria and the ESP teaching context, with close reference to Tlemcen University. The centre of the problem of ESP teaching at Tlemcen was indicated, and identified as the purpose of the study. Research questions and hypotheses were later presented.

Some basic relevant definitions were outlined to avoid any kind of misinterpretation. In the next chapter, the investigator will present a theoretical framework of the notions of ESP and Teacher Training.
CHAPTER TWO

LITERATURE REVIEW
Chapter Two

Literature Review

2.1 INTRODUCTION

2.2 ESP INTERPRETATIONS

2.3 ESP VS GENERAL ENGLISH

2.4 ESP GENESIS
   2.4.1 Demands of the Brave World
   2.4.2 Revolution in Linguistics
   2.4.3 Focus on the Learner

2.5 ESP EVOLUTION
   2.5.1 Register Analysis
   2.5.2 Rhetorical or Discourse Analysis
   2.5.3 Target Situation Analysis
   2.5.4 Skills and Strategies
   2.5.5 The Learning Centred Approach

2.6 ESP BRANDS
   2.6.1 English for Academic Purposes
   2.6.2 English for Occupational Purposes
   2.6.3 English for Science and Technology

2.7 ESP COURSES CRITERIA

2.8 TEACHERS EDUCATION, TRAINING AND DEVELOPMENT
   2.8.1 Teacher Training
      2.8.1.1 Types of Teacher Training
      2.8.1.1.1 Pre-Service Teacher Training
      2.8.1.1.2 In-Service Teacher Training

2.9 TEACHERS’ QUALIFICATIONS
   2.9.1 Language Competence
   2.9.2 Pedagogic Competence
   2.9.3 Language Awareness
   2.9.4 Specialised Knowledge

2.10 ESP TEACHERS TASKS
   2.10.1 The ESP Practitioner as a Teacher
   2.10.2 The ESP Practitioner as a Course Designer and Material Provider
   2.10.3 The ESP Practitioner as a Collaborator
   2.10.4 The ESP Practitioner as a Researcher
   2.10.5 The ESP Practitioner as an Evaluator

2.11 PROMINENT APPROACHES TO ESP TEACHING
   2.11.1 Content Based Approach
   2.11.2 Task Based Approach
2.11.3. Lexical Based Approach
2.11.4. Content and Language Integrated Learning

2.12. A REVIEW OF ESP TEACHER TRAINING PROGRAMMES WORLDWIDE

2.12.1. National/ Public Training Courses
   2.12.1.1. EST Teacher Training Course Chile
   2.12.1.2. Minimal Teacher Training for ESP Italy
   2.12.1.3. Russian Education Support Project on Specialist English RESPONSE

2.12.2. Private Courses at Private Institutions
   2.12.2.1. Introduction to Teaching English for Technical purposes ITELP, Germany
   2.12.2.2. Certificate in International Business English Training, Hungary
   2.12.2.3. The Business English Teachers’ Course, Spain

2.13. CONCLUSION
2.1. INTRODUCTION

In what follows, the aim is to throw light upon the notion of ESP and provide an overview of teacher training and development. In so doing one first chapter is presented. It embraces two parts where the first part deals with ESP as a main sub-field of ELT, affording deep insights on its main definitions, origins, and development overtime. In addition, the branches of ESP and the typical characteristics of its courses have been reviewed. The second part however, talks about teacher education, development, and training, where available literature related to teachers’ development was high-lighted as well as qualifications and main tasks ESP instructors are supposed to perform. A thorough discussion has been provided afterwards on those available approaches, which may be used as scaffolding to an ESP practitioner to better cope with his/her learners’ needs, wants, and lacks while teaching. Finally, a review of ESP teacher training programmes developed around the world has been discussed.

2.2. ESP INTERPRETATIONS

The advent of technology and the widespread of globalization have contributed tremendously in making English language at the fore front; the lingua-franca of today’s world communication which has become the focal point of academics who deeply believe in its vital role in the world of education. So learning English has become a must not only for scientists, researchers, and teachers, but also for different social strata, and for the Non-English speaking world as well. Algerian context, for instance, which is extremely influenced by the French language, shifted towards English Language Teaching (ELT) where a sub-field under the label of ‘English for Specific Purposes’ or ‘ESP’ for short was introduced to meet their needs.
As a first step towards building a critical reflection upon ESP as a main sub-field of ELT, a batch of definitions would be afforded to provide an accurate interpretation which is presumably relevant to the context of ESP.

Mackay defines ESP as the teaching of English for a “clearly utilitarian purpose” (Mackay et al, 1978:2). This denotes that the learners’ needs being either of academic, occupational or scientific character may determine these rationales. Munby (1978), in his turn, sustains that learners’ communication needs are worthwhile for the process of syllabus and materials’ design. He, therefore, (1978:02) writes: “ESP courses are those where the syllabus and materials are determined in all essentials by the prior analysis of the communication needs of the learners”.

According to Harmer (1983:1) ESP is “…situations where the student has some specific reasons to learn a language”. This may underline the fact that a myriad of learners want to learn the target language, i.e. English to execute their spurs being either scholastic or professional.

Moving further, Hutchinson et al (1987:19) consider ESP as “an approach to language teaching in which all decisions as to content and methods are based on the learner’s reason for learning.” The key idea here is that the teacher is invited to provide and reflect on the main needs and motives of students, and to sit for ESP classes to settle on the type of language to be taught.

As for Strevens (1988:1-2), he claims that “ESP is a particular case of general category of special-purpose language teaching. The same principles apply no matter which language is being learnt and taught.” Strevens also maintains that a definition of ESP needs to
establish a clear cut between absolute and variable characteristics which can be cited below.

**Absolute characteristics:**

“Absolute characteristics are listed as follows:

- Designed to meet specified needs of the learners;
- Related to content, to particular disciplines, occupations and activities;
- Centred on the language appropriate to those activities, in syntax, lexis, discourse, semantics, etc;
- In contrast with “General English”.

**Variable characteristics:**

*ESP may be, but is not necessarily:

- Restricted as to the language skills to be learned.
- Not taught according to any pre-ordained methodology.”

Another recent definition provided by Robinson (1991:23) links the acquisition of linguistic repertoire to the trend the learner is enrolled in. She points out that: “the nature of the relationship between context or domain and the learning and use of the language is clearly vital to ESP and highly worth investigating”.

A further modified and improved version of absolute and variable characteristics is that of Dudley-Evans *et al* (1998) in which they have removed the idea that ESP is “in contrast with General English” and incorporated the subsequent erratic characteristics;

- “ESP is likely to be designed for adult learners, either at a tertiary level institution, or in a professional work situation. It could, however, be used for learners at secondary school level.
• ESP is generally designed for intermediate or advanced students.
• Most ESP courses assume basic knowledge of the language system, but it can be used with beginners’.

In her turn, Basturkmen (2006:18) proclaims that: “ESP is understood to be about preparing learners to use English within academic, professional, or workplace environments and a key feature of ESP course design is that the syllabus is based on an analysis of the needs of the students”.

To sum up, the aforementioned definitions though provided by different linguists, they pour in the same basket and can tell that ESP is, basically, perceived as an urgent response to the needs of learners who are supposed to meet them in particular contexts; being academic, professional or vocational.

2.3. ESP VS GENERAL ENGLISH

The term ‘General English’ is different from ‘ESP’ in many points. A clear cut dichotomy may show the difference. ESP learners are almost adults that are highly motivated, possessing prior experience and background knowledge in English language. Their purpose behind attending ESP courses is to learn English effectively to accomplish the already set meticulous purposes; academic, professional or scientific. So they are deemed to be completely aware of their target needs, where their awareness is thought to be of major significance and, even, much higher than that of General English. This view has been already articulated by Hutchinson et al (1987:53) who sustain that: “What distinguishes ESP from General English is not the existence of a need as such but rather an awareness of the need.”

The central issue in this survey is the Algerian context where pupils start learning General English at middle school and are supposed
to be taught a set of language areas such as: grammar, phonology, lexis, etc... So, it could be stated that it is, basically, ‘language-centred’ because the English teachers are more concerned with conveying their messages, rather than to be responsive to their learners’ needs. Another divergence lies on the learners’ aim which tends to be too general, instead of being very pointed i.e., should concern examination at middle or secondary school or tests. This does not give much attention to learners’ level of proficiency whether they know how to speak in English or not, and whether they are able to communicate effectively in this language or not. As opposed to ESP whose main aim and focus is to help learners to better communicate in their target situations.

This view is supported by that of Mackay et al (1978:28) who deem that English is taught “not as an end itself but as an essential means to clearly definable goal.” The goal may vary according to the situation; academic, professional or scientific. It is also reinforced by Strevens (1980) who argues that: “ESP differs from general English in that, it is based on a close analysis of the learners’ communicative needs for a specific occupation or activity, as well as a detailed analysis of the language of that occupation or activity”.

As for McDonough, (1984) he maintains that the ESP practitioner needs to understand the requirements of other professionals either in academic or professional fields. For this reason, he should be open to adopt new means and ways, and flexible to accommodate new ideas.

2.4. ESP GENESIS

The demands of a brave new world, besides, a revolution in linguistics and a focus on the learners are believed to be the main
reasons for the emergence and the growth of ESP which have been clearly outlined in works such as of Hutchinson et al (1987).

2.4.1. Demands of the Brave New World

Hutchinson et al (1987), and other scholars including namely; Crystal (1997), Zughoul (2003) affirm that the end of the Second World War, and the oil crisis of the early 1970s were two key historical periods in the life of ESP. In this regard, the need to learn English after the end of the Second World War to meet the challenges of the ‘New World’ is of a significant importance in ESP emergence.

The progress of science and technology from the mid 1940s until the present time has influenced many fields and education in particular. Thus, learning English has become a must for all people because English is like oxygen that is required for breathing i.e., access in the technological term which is primordial for scientific researches and publications. This view is supported by Crystal (1997) who sustains that:

The world status of present day English is direct result of two factors: British colonialism and the emergence of the US as a strong economic and military power. The latter factor, states Crystal, is what continues to explain the position of English today. Quoted in (Zughoul 2003:118)

The emergence of ESP cannot only be linked to those demands of the new world and the changing status of English but it goes, even, beyond to reach other factors which have a strong relationship with what is labelled ‘the revolution in linguistics’ and ‘a focus on the learner’ who was and is still regarded as the key-parameter in ESP teaching/learning situation.
2.4.2. Revolution in Linguistics

Many linguists (Hutchison et al, 1987; Flowerdew et al, 2001) have agreed upon the fact that the revolution in linguistics is considered as one of the reasons which gave birth to ESP as a separate trend within English language teaching. Halliday, McIntosh and Strevens (1964) are believed to be the pioneers who have sought and launched this revolution, for they view language not only as an abstract set of elements under a system but rather “as a source of communication which may vary according to the situations or the contexts.” Flowerdew et al (2001:11)

Of a great importance to communication, the term register which was mainly introduced as a main part of linguistics’ analysis in addition to one another prominent type of analysis related to language description namely discourse analysis. In what follows much focus is made on register and discourse analysis while examining the different stages of ESP evolution.

2.4.3. Focus on the Learner

ESP context learners are believed to have an important role in the teaching/learning process. This is because they are considered as its key-parameters. The focus which is placed upon them, as mentioned by Hutchinson et al (1987) from the early beginning of ESP until nowadays, is that they are conceived as one of the significant reasons which gave birth, and flourish to ESP.

As far as needs and interests are concerned, they are seen as the hinges on which ESP rests on, in addition to the aforementioned key-parameters of learning (learners). Again, another element is worth mentioning, it is motivation, the turbine engine of learners, which is attached to learners, and related to needs and interests. This can be clearly seen in ESP courses where the focus on the learner is of a
fundamental value, and needs analysis is of equal importance as well. Therefore, the course content, materials and tasks are drawn upon a careful exploration of learners’ target aims and prospects. ESP courses, in this account, would be of great significance, where strong need emerges to define Needs Analysis. According to Basturkmen (2006:15) Needs Analysis can be seen as: “the type of investigation ESP curriculum developers use to identify the gap between what learners already know and what they need to know in order to study or work in their specific target environments”.

To put it differently, it can be stated that the ESP practitioners are supposed to achieve a triangle which consists of notably; the learners, their needs and the situation particularities. This latter is assumed to be the core-stones in the development of any ESP language course.

2.6. ESP EVOLUTION

ESP has witnessed expansions at different levels among various countries. It is thought to be an unplanned movement which was developed gradually and has contributed to the emergence of the notion of special languages. In what follows a clear explanation is provided about stages through which ESP has gone, thus relationship of stages with activities. Hutchinson et al (1987) identified five phases of its development, and tried to join each stage to one particular activity.

2.5.1. Register Analysis

The first stage of ESP development has dealt with Register Analysis. It has been associated with grammar and vocabulary of the language. Before embarking on explaining this phase, i.e., ‘register analysis’ or as Swales (1988:189) tends to label ‘lexicostatistics’ or ‘Frequency Analysis’ by Robinson (1991:23),it advisable to define first
the term *register*, then to move to register analysis. According to Spolsky (1998:34):

Register is a variety of language most likely to be used in a specific situation and with particular roles statuses involved. Examples might be a toast at a wedding, sports broadcast or talking to a baby. A register is marked by choices of vocabulary and other aspects of styles.

The analysis of register within ESP may show that materials’ writers tend to analyse the set of grammar and vocabulary of various registers, then, put forward the kind of courses, syllabi and curricula depending on their identification and judgement about a particular area.

*A Course in Basic Scientific English* compiled by Ewer et al (1969) is a good demonstration of the point. Ewer et al (1969:222) point out that: “In order to get a working idea of what this basic language is consisted of, a frequency analysis of English actually used by scientific writers was required.” They move further where they reveal that “In subject, it covered ten main areas of science and a large number of individual disciplines from anatomy to volcanology.”

The focal point of materials’ writers was on the words and sentence level. According to Dudley-Evans *et al* (1998) the assumption behind register analysis was that, while there is no difference between scientific and technical writing and General English; there was much focus on a certain grammatical and lexical forms which are often used. Basturkmen (2006:35) extends this view by stating the example of: “Analysis of scientific and technical texts by Barber (1962/1985) which showed that the passive tense is used more frequently in such writing than in general English and identified a set of sub-technical vocabulary items that were more likely to occur”.

27
As mentioned above, register analysis operates only on the word and sentence level, and does not go beyond these limits. This opened the door to the emergence of another approach which works beyond the sentence level and is best known under the label ‘Rhetorical’ or ‘discourse analysis’.

2.5.2. Rhetorical or Discourse Analysis

Contrary to the previous phase which focuses on words and sentence level, rhetorical or discourse phase puts its emphasis on the level above the sentence. According to Hutchinson et al (1987) ESP at this phase, became closely involved with the emerging field of discourse or rhetorical analysis, where the organization of sentences to form discourse is the core of this approach.

The importance of Discourse Analysis (DA), given that it is also a key-concept, makes it incumbent upon us to present an appropriate definition of the term. According to Dudley-Evans et al (1998:87) discourse analysis is defined as:

Any study of language or, more specifically, text at a level above that of the sentence is a discourse study. This may involve the study of cohesive links between sentences, of paragraph structure, or the structure of the whole text. The results of this type of analysis make statements about how texts –any texts- work.

It should be pointed that, this approach has been developed during the 1970s where the pioneers, as cited by Robinson (1991), are: H. Widdowson; L. Selinker, L. Trimble, L. John, and M. Todd-Trimble. According to Robinson (1991:24) “the focus was on the text rather than on the sentence, and on the writer’s purpose rather than on the form.”
Consequently, discourse Analysis is the way sentences are combined together to perform an act of communication, where the syllabus and the material are based on their findings, as well. Hutchinson et al (1987), in this respect, maintain that text-diagramming exercises constitute a means for teaching students to recognize textual patterns and discourse markers. The following examples are a good demonstration of the point. English was mentioned in Focus Series (1977) edited by Mountford and Widdowson, and the Nucleus Series was cited by Dudley-Evans et al (1998).

2.5.3. Target Situation Analysis (TSA)

Target Situation is the third phase of ESP development, where attention is shifted to the communicative approach, and main focus is to enable learners to function adequately in their target situation. Hutchinson et al (1987:12) define target situation as: “the situation in which the learners will use the language they are learning.” At this stage, ESP course design according to Hutchinson (1987) should proceed by:

- First: identifying the target situation.
- Second: carrying out a rigorous analysis of the linguistic features of that situation.
- Finally, the identified features will form the syllabus of the ESP course.

Chambers (1980:25) labels the name ‘Target Situation Analysis’ to this analytical approach. He states:

By the language I mean the language of the target situation. Thus, needs analysis should be concerned with the establishment of communicative needs and their realizations, resulting from an analysis of the
communication in the target situation – what I will refer from now on as target situation analysis (TSA).

One of the significant examples of Target Situation Analysis is the one developed by Munby in Communicative Syllabus Design (1978). According to Hutchinson et al (1987), Munby (1978) analyzed learners’ needs in terms of communication goals, the setting where a particular language would be used to communicate, means which can be either oral or written, and the language skills possessed by the learners, function, and structures.

2.5.4. Skills and Strategies

During its fourth phase of development, ESP has witnessed a radical change since no more attention was given to the surface of language’ forms; the main focus was on thinking processes that govern language use. Hutchinson et al (1987:13) argue that: “No need to focus closely on the surface forms of the language the focus should rather be on the underlying interpretive strategies, which enable the learner to cope with the surface forms”.

Dudley-Evans et al (1998) move a step ahead where they associated the focus on skills with the idea of communicative language teaching. According to Dudley-Evans, these interests have grown and developed naturally from what he has labelled ‘functional-notional material’. So while examining this phase, we may say that:

✔ Strategy analysis seeks to emphasize much more the learners’ expectations for the way they should learn than what they want to learn.

✔ Depending on the particular characteristics of a typical situation; there are priorities among skills, i.e., a skill which is emphasised in one situation such as reading is inappropriate for
another situation, consequently, another skill will be more adequate such as writing. In this regard, Dudley-Evans *et al* (1998:24) maintain that:

In many situations, especially when the medium of instruction was not English, for example in Latin America, this meant a focus on reading. In other situations it might involve a different skill, such as listening for international students embarking on academic courses in the UK.

As an example of this approach, Dudley Evans *et al* (1998) consider that the course which has been developed at *Malaya University* under the title of ‘*Skills for learning*’, focuses primarily on the reading skill.

ESP at this phase has dealt with the thinking processes which imply the use of language aiming at developing learners’ skills and strategies to acquire a second or a foreign language.

### 2.5.5. The Learning-Centred Approach

The learning-centred approach is the fifth stage, where ESP has rather shifted attention to the learner who is considered as the key-parameter in ESP teaching/learning process, and whose needs, wants, and lacks are viewed as the starting point in the process of syllabus design which should suit and fulfil precise purposes either for the learner’s present situation or his future career.

A syllabus, in this vein, has been defined by Hutchinson *et al* (1987:81) as: “what is to be learnt with some indication of the order in which the items should be learnt and the interpretation that is put to.”
The aforementioned definition can show that the syllabus should be designed according to the learners’ needs wants and lacks. This process is commonly known under the label ‘Needs Analysis’ which is the vital part in the process of materials’ preparation and production in the area of ESP.

Therefore, once materials designers and curriculum developers get a full idea about what learners want to learn, lack or simply need, as well as the related information about those apprentices; the socio-economic and cultural context in which the language programme is designed and for whom it is implemented. It will be possible for them, therefore, to set the course’ objectives and determine the content of the lecture.

This process will not, then, be achieved unless an assessment and evaluation of the learners’ abilities function easily in the target situation -to which the course syllabus and materials have been identified- occurred. Dudley-Evans et al (1998:26) argue that: “The concept of a learning-centred approach is outlined. This involves considering the process of learning and student motivation very fully and working out exactly what is needed to enable students to reach the end target”.

To put it differently, the ESP learner alongside the process of needs analysis became the main core of this approach, at this stage of ESP development.

2.6. ESP BRANDS

As has been mentioned earlier, ESP is a sub-field of ELT which has also its proper sub-sections. The most prominent two branches of ESP are ‘EAP’ English for Academic Purposes and ‘EOP’ English for
Occupational purposes. A third branch which has been a matter of debate few years ago is ‘EST’ English for Science and Technology.

2.6.1. English for Academic Purposes (EAP)

‘EAP’ refers, fundamentally, to learning or teaching English in Academic contexts, such as universities, institutes, centres and private schools in order to fulfil a set of Academic Purposes. This can be shown in the following quotation: Kennedy et al (1984:4) point out that: “EAP is taught generally within educational institutions to students reading English in their studies.” EAP may consist of teaching particular skills notably; reading texts, writing reports, taking notes, etc for apprentices at the tertiary-level institutions.

2.6.2. English for Occupational Purposes (EOP)

‘EOP’ is the abbreviation of English for occupational purposes. It refers to English used in some particular situations by learners or workers. The former means that the learners are already engaged in particular context performing particular jobs such as medicine, law, banking, administration...etc. The latter, however, stands for future workers seeking a wide range of domains which may help them later on fulfil occupational purposes, and hopefully function adequately in their target settings. Kennedy et al (1984:04), in this account, write: “EOP is taught in a situation in which learners need to use English as part of their work profession.”

A similar, but a more recent definition has been given by Dudley-Evans et al (1998:7) in which they assert that: “The term EOP refers to English that is not for academic purposes, it includes professional purposes in administration, medicine, law and business and vocational purposes for non-professionals in work or pre-study work”.
Based on the diagram mentioned below which is adopted from Johns (1991), one may say that ESP has been split into two major areas; EOP and EAP. The latter has two fundamental subdivisions; EST and EAP. A part from EAP which has been also divided into two main branches where EST appears as the oldest branch of ESP and EAP includes all other labels regardless EST. EOP has its own two chief fields, as well; EPP ‘English for Professional Purposes’ and EVP ‘English for Vocational Purposes.’

![Diagram 2.1: Subdivisions of ESP](image)

To sum up, it can be stated that EOP being either for professional or vocational purposes, aims to prepare learners to better cope with the different requirements of everyday working needs.
2.6.3. EAP Vs EOP

In 1987, Hutchinson et al while drawing a distinction between ‘EAP’ and ‘EOP’ as the main subfields within ESP state that “there is no clear-cut distinction” and they argue that “in many cases the language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job.” (Hutchison et al 1987:16). Years later, Robinson (1991:100) offers a distinction between these two subfields by stating that: “EAP is thus specific purpose language teaching, differentiated from EOP by the learner: future or practicing student as opposed to employee or worker”.

In other words, the main concern of both EAP and EOP is the learner where his either present or future situation may define his needs as well as the type of ESP course he may be involved in.

2.6.4. English for Science and Technology (EST)

The third branch of ESP is ‘EST’ which has been a matter of a hot debate among many researchers. Among them McDonough (1984), and Dudley-Evans et al (1998); whether it is a branch of its own or a sub-branch shared by both ‘EAP’ and ‘EOP’. The following diagram may clarify the point.

![Diagram 2.2: Subdivisions of ESP](Adapted from McDonough, 1984:6)
Diagram 2.2 shows EST (English for Scientific and Technological purposes) as a subdivision of EAP. It was put by McDonough (1984) as a subdivision of EAP in which he emphasized its academic orientation. In this trend, Kennedy et al (1984:6) argue that: “the term ‘EST’ presupposes a stock of vocabulary items, grammatical forms, and functions which are common to the study of science and technology”.

Kennedy go, further, attempting to provide the readers with more precision and clarification of this notion by stating that “EST is simply an important branch of ESP dealing with scientific content.”

2.7. ESP COURSES CRITERIA

ESP learners are often adult learners. They already have a background in English and seek to learn English for a “clearly utilitarian purpose” to meet specific target needs (Mackay et al 1978). In most cases, those learners are supposed to have an intermediate or advanced level. Yet, in this case, the use of authentic materials as a component of the ESP course adopted or adapted is inevitable. Therefore, it can be noticed that the use of authentic materials one feature is one of the features of the ESP courses among the other two features which were stated by Carver and are Purpose–related orientation and Self direction.

Therefore, the use of authentic materials is a common feature of the ESP course mainly in self-directed study and research tasks, thus while discussing the use of authentic materials, one may find that Robinson among many authors share the view that “Authenticity is a key concept in ESP courses.” (Kennedy et al, 1984; Robinson, 1991;
Chapter Two


Authenticity lies in the nature of the interaction between the reader (or hearer) and the text. Part of the process of needs analysis is finding out exactly how learners use different sources so that activities in the ESP class can reflect what happens in real life.

The second feature of the ESP course as mentioned before by Carver (1983) is: “purpose related orientation”, i.e., the situation of communicative tasks required by the target situation. According to Carver, the main aim of the ESP course is to enable learners to become communicatively competent in the target field through note-taking, conducting researches and presenting oral tasks.

The last feature as viewed by Carver (1983) is *self-direction*. It is defined as: “…turning learners into users”. Therefore, it is crucial for the ESP practitioner to base his course on a Needs Analysis procedure at the first step, while in the second step he is invited to encourage his students to decide what, when and how to study, that is, displaying a certain level of autonomy or freedom. In this respect, Kennedy *et al* (1984: 141) write: “A prime concern for the teacher is to enable a student to become more and more autonomous in his learning as the course goes on.”

It is, also, widely agreed among researchers (Robinson, 1991; West, 1994; Dudley-Evans *et al*, 1998; Basturkmen, 2006) that ESP courses are strongly subject to time. In other words, those learners, who seek to learn English for a specific purpose, have a limited period of time in which they are supposed to learn English. Therefore, need to be
taught only a limited range of language rules which they may need in the field of specialty they may be involved in.

To sum up, ESP courses hold specific characteristics which may differ from other courses. Learners’ needs, wants, and lacks constitute the primary step in the process of needs analysis upon which it could be possible for the language teacher, later on, to design an adequate and effective course.

2.8. TEACHERS EDUCATION, TRAINING AND DEVELOPMENT

Before tackling the core of this study, that is, searching for the possible ways to enhance teachers’ professional qualifications while trying to implement an in-service teacher training programme, a strong need has to be mentioned to provide a careful examination of the term, and to outline those differences, if any, between the three main labels; notably, education, training and development.

Given that education and development are the key-terms, instructors are concerned with, since they are supposed to be trained as a part of their educational process to help them later to achieve ‘self-development’ which can facilitate the way for those teachers to have a positive attitude towards not only the typical characteristics of different contexts they are believed to take part in, but also, to respond confidently to the learners’ needs, wants, lacks and their future expectations, as well.

As mentioned previously, the three terms may overlap, because there is no clear cut-distinction between them in terms of practice; despite a long debate between proponents and opponents regarding the aforementioned terms. Nevertheless, a thorough consideration of those terms is needed. To compare between and education, the following definitions are given: training “is the act of increasing the knowledge
and the skill of an employee [a teacher] for doing a particular job [teaching].” While education is “a broader term concerned with increasing the general knowledge and understanding of employees’ [teachers] total environments.” (Tripathi et al, 2008: 195)

To put it differently, it can be proclaimed that “education is directed towards the whole person; as it is a holistic learning experience.” Whereas, training is commonly regarded as “a structured means to bring about a set of changes in knowledge and skill level.”(Kuehl, 2002: 346). To equip teachers, then, with particular skills to perform particular task when training them, is different from educating them to deal with wide range of situations, because educating a teacher does not, only mean learning how to teach, but goes, even, further to reach other aspects such as dealing with situations, solving problems, mediating culture, establishing positive atmosphere to enhance students’ motivation which in most of cases may have either a negative or a positive impact on their attendance and achievements.

To frame accurately the three key-terms, another distinction is, almost, needed between training and what development. So training is regarded as different from development in the sense that it is as ‘one-shot affair’, however, development is presumed to be ‘a continuous process.’(Tripathi et al, 2008: 196). In other terms, if the former aims to instruct a meticulous skill, the latter endeavours to achieve a total improvement of the teachers’ character. Eventually, one may say that unlike training which can be regarded as an outcome of an external motive, development is a direct result of what someone needs and seeks as a part of his actual and future situation.

Above all, despite the already existed divergence between the three terms, in the literature related to the field of teaching and learning a great majority of researchers use both terms, i.e., training and
education interchangeably as synonyms to refer to the same concept as well, but in terms of delicate situations i.e., when scholars need to differentiate the two types of teachers’ preparation, they label the first as ‘the pre-service education’ ,which denotes preparation and education of prospective teachers, while the second under the umbrella term of ‘in-service training’ as those already engaged instructors need to be trained to overcome a set of obstacles they are facing in their daily situations. Homer (1953:14) argues that: “these two middle ground areas of education and training sometimes merge to such an extent that no clear-cut boundary separates them.”

Consequently other scholars do not only believe in the sharing land between education and training. They go further to deem that education is a process which comprises four main elements which according to Lapkin et al (1990) are: pre-service and in-service training, teacher qualification and certification.

If a prospective teacher has undergone a pre-service preparation and is appointed to teach, then he needs an additional help and undertake an in-service training or education programme to bridge the gap between what he has learnt before learning and what is currently facing. Furthermore, to look for better techniques to deal with own situation via conducting needs analysis, alongside, researches are almost needed. This ‘gradual progress’ or as Sithamparan et al (1992) named ‘continuous improvement’ may stand for the concept of ‘development’. Learning, in this vein, is regarded to be at “the heart of teacher development.” (Bell et al, 2005: 01)

In the following table, Maggioli (2004) has tried to list a set of characteristics relevant to the traditional professional development and compare it to the visionary one. These have been done mainly to show the shift from a traditional view to a more recent one where
collaboration, context particularities, evaluation and assessment are key-concepts.

<table>
<thead>
<tr>
<th>Characteristics of Traditional Professional Development</th>
<th>Characteristics of Visionary Professional Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Top-down decision-making</td>
<td>• Collaborative decision-making</td>
</tr>
<tr>
<td>• A “fix-it” approach</td>
<td>• A growth-driven approach</td>
</tr>
<tr>
<td>• Lack of program ownership among teachers</td>
<td>• Collective construction of programs</td>
</tr>
<tr>
<td>• Prescriptive ideas</td>
<td>• Inquiry-based ideas</td>
</tr>
<tr>
<td>• One-size-fits-all techniques</td>
<td>• Tailor-made techniques</td>
</tr>
<tr>
<td>• Fixed and untimely delivery methods</td>
<td>• Varied and timely delivery methods</td>
</tr>
<tr>
<td>• Little or no follow–up</td>
<td>• Adequate support systems</td>
</tr>
<tr>
<td>• Decontextualized programs</td>
<td>• Context-specific programs</td>
</tr>
<tr>
<td>• Lack of proper evaluation</td>
<td>• Proactive assessment</td>
</tr>
<tr>
<td>• Pedagogical (child-centered) instruction</td>
<td>• Andragogical (adult-centered) instruction</td>
</tr>
</tbody>
</table>

Table 2.1. Traditional vs. Visionary Professional Development
(Adopted from Maggioli, 2004:06)
2.8.1. Teacher Training

To leverage ESP teaching/learning practice, requires the implementation of specialized teacher-training programmes which are thought to be singularly important. Most of researchers who are concerned with assessing the progress of ESP teaching, relate the failure of ESP courses to the lack of training. According to them, to be ill-prepared is this one on the one hand. On the other hand, ESP teaching is regarded as a difficult task with regard to ESP teachers that lack it (Ouakrime, 1997).

This view is supported by that of Swales (1985: 214) who emphasizes that “one of the constraining factors to this progress is the lack of ‘specialized teacher-training’”. In what comes next, the term ‘training’ is tackled from different angles.

Trying to explore the term ‘training’ with close reference to ESP teachers, has lead to detecting a consensus among researchers which is as follow: teachers’ perception, as well as, their opinions may vary concerning this latter. According to Valdes (1986:103): “a better command of the target language by the teacher is a necessity but not a sufficient condition. Teacher training, for them, includes an important element of methodology, classroom observation, materials trial and development, and so on.”

To have a full or a native-like command of the target language is welcomed for not only ESP practitioners, but also for those who are appointed to be language teachers, as well. Nevertheless, it is not yet enough for them to claim that they have been effectively trained as one of their perspectives is to
have a careful consideration of their needs, wants, lacks and expectations. As a main part of these potentials is that their preparation process should respond directly to their prospects; to be prepared in a wide range of areas to cover, hopefully, their own needs, besides, their students’ needs in order to have, later on, a full command of their classrooms.

2.8.1.2. Types of Teacher Training

While tracing back the available literature about training as a process, it should be stated that ‘the formal preparation of prospective teachers’ may entail two phases, namely pre-service and in-service training courses. Taking the ESP teachers as a case study, it can be said that, an ESP practitioner needs to be trained before being engaged in the ESP teaching situation first as a language teacher. Later on, while he is involved in such a situation he/she may call for having an in-service training which should suit his/her needs and the field he/she is involved in.

2.8.1.3. Pre-Service Teacher Training

Before tackling pre-service teacher training programmes from the angle of ESP, it should be noted that those programmes are predetermined by ‘the decision-makers’. Those latter, in most of the cases, are far from real contexts. This could have a negative impact of the quality of programmes offered. In addition, the main aim which stands behind undertaking a pre-service preparation is “to help them [future teachers] enhance and improve language abilities, pedagogical skills, and cultural knowledge.” (Song et al, 2011: 100)

Therefore, from an ESP prospect, in order to function adequately as a teacher, an ESP practitioner should undergo a pre-service general training phase by which he is required to attend the
following lectures, including a variety of sciences relating to Teaching English as a Foreign Language (TEFL) as the case in Algeria. In this phase, a prospective ESP teacher should be well-equipped with a sound training which includes: phonetics; linguistics; psychology; pedagogy; methodology and so forth. Additionally, he should undertake a ‘specialized training’ where other areas such as needs analysis; syllabus design; materials production; specialized language ‘terminology’, should be, carefully, addressed. At last but not least, practice is almost needed.

Since any prospective teacher may feel inadequate if he seeks to rely on what he has learnt in theory, he, then, needs to find a way to practise what he has acquired during their theoretical years. This latter can be achieved through observing other teachers, and later on, he may be asked to run the course under their trainers’ monitoring. Trainers’ supervision may constitute a great help for a prospective teacher who does not only need supervision but a feedback, too, on his performance.

2.8.1.4. In-Service Teacher Training

As mentioned previously, pre-service teacher training is of great importance for prospective teachers. On the other hand, and for those who are already involved in ESP teaching situations, in-service teacher training may constitute a tremendous help for them. This can be achieved through attending workshops and seminars by which they seek to cater for a better professional development. Along the same line, Savas (2009:402) writes: “language teachers and prospective language teachers can attend professional development workshops to let themselves acquire a second field of expertise, such as medicine, engineering or law.”
To sum up, taking part in such training is fruitful with regard to become ESP teachers as “new teachers learn from veterans. They become oriented more quickly and effectively.” Buckley (2000:12)

2.9. Teachers’ Qualifications

Having investigated the area of ESP, it has been noticed that the ESP teacher being a key-parameter in the teaching/learning process has been neglected. It is presumably the main reason for such a failure in this process, irrespective of learner’s needs, wants and lacks, and their levels of proficiency, as well.

Furthermore, a better functioning in any teaching situation, ESP teachers; like general English language teachers, need first to acquire three types of competences, notably Language Competence; Pedagogic Competence and Language Awareness. In addition to another element that is related to the specialised knowledge. The following diagram may illustrate this view:

Diagram 2.3. Teachers’ Qualifications
(Adapted from Thomas, 1993)
If a teacher, then, lacks one of these competences, he won’t be able to function appropriately as a teacher. Accordingly, these four competences are believed to be of a vital value for those teachers.

2.9.1. Language Competence

According to Thomas (1993), Language Competence is prerequisite for the language teacher. Taking into consideration that an Algerian ESP teacher is not a native speaker of English, does not imply to have a native-like competence. His role, in contrast, is to help learners to function effectively in their target settings.

2.9.2. Pedagogic Competence

To throw light upon the second element, Thomas (1993) focuses on the need to be pedagogically competent which implies the ability to teach effectively. This is commonly due to the fact that, one may have a good command of a language but this does not mean that he is a good teacher. In this respect, Richlin (2006:135) writes:

A pedagogically competent teacher communicates the objectives of the course to students, is aware of alternative instructional methods or strategies, and selects methods of instruction that, according to research evidence (including personal or self-reflective research) are effective to achieve the course objectives.

To achieve this end, the teacher should keep in touch with the current research works about teaching/learning process. Attending
conferences and workshops may also constitute a great help for the instructor.

2.9.3. Language Awareness

One of the teachers’ duties is the ability to supervise both processes namely; language use and learning in the classroom. This can be achieved through a conscious reflection on language which can be accomplished by going beyond the ability to only use the language. Therefore, language Awareness is a key-parameter in ESP teacher training because “the language content of the ESP courses usually differs from that presented on general language courses” (Lomax et al 2002: 131). According to them, an ESP teacher does not teach a different type of English, they add: “It is simply acknowledges that those learning English for business, legal...wish to improve their proficiency in particular kind of discourse in English …therefore the language content of their courses reflects the particular linguistic features of these discourses”.

In addition to the three competences cited above, the investigator has felt the need to introduce a fourth element to better cope with the requirements of an ESP teaching situation which is characterized by having ‘a basic specialized knowledge’.

2.9.4. Specialised Knowledge

As mentioned previously, ESP is teaching English for a “clearly utilitarian purpose” (Mackay et al, 1978), depending on the learners’ field of study, current, and future situation, and needs too. Hence, an ESP teacher often faces adult learners who are supposed to
have specialised knowledge of their scope of research, seeking to learn one type of English to be encountered in their educational context.

Before tackling this fourth element, i.e., Specialised Knowledge, we find it advisable to define the current term. Ferguson (quoted in Brown et al 1997, 80) states that “the term ‘specialist knowledge’ is typically construed as knowledge of the subject matter of the discipline or profession of the students taught”.

As a consequence, the role of the ESP teacher is believed to help students communicate effectively in the target language while using their knowledge related to field of their speciality. To achieve this, a certain level of knowledge of the learners’ area of study is required. However, it should be pointed that the primary concern of teachers is to teach language and not the speciality. This has been clearly articulated by Bojovic (2007:493) “ESP teachers are not specialists in the field, but in teaching English, their subject is English for the profession but not the profession in English”.

2.10. ESP TEACHERS TASKS

In ESP, courses vary depending on the learners’ specific scientific field or profession. Therefore, practitioners that are engaged to teach such courses need to play different roles and acquire a specialized knowledge.

ESP teaching is extremely varied because “the role of the ESP teacher is a controversial issue” since “there is no single ideal role description.” (Robinson, 1991: 79). Swales (1980), Dudley-Evans et al (1998:13) and many others prefer to use the label ‘practitioner’ rather than ‘teacher’, “to emphasise that ESP works involve much more than
teaching”. Hence, playing a different role in each stage of the ESP programme starting from data collection and needs analysis, moving to the design of materials, and structuring the classroom; besides, preparing the learning environments, ending with evaluating the learners’ achievements the teaching materials; it should be obvious that ESP practitioners have to play various roles. In this regard, Dudley-Evans et al (1998:13) claim that: “the ESP practitioner has five key roles: Teacher, course designer and material provider, collaborator, researcher and evaluator.”

The following diagram summarises the different roles ESP practitioners tend to play:

**Diagram 2.4:** Roles of the ESP Practitioner

Accordingly, it can be stated that the ESP practitioner needs to perform different tasks while involved in an ESP teaching situation. Therefore, the first role that is attributed to him is that of the teacher.
2.10.1. ESP Practitioner as ‘Teacher’

The main point which most of the researchers (Kennedy et al, 1984; Hutchison et al, 1987; Robinson, 1991; Dudley-Evans et al, 1998; and so forth) agree on is that the ESP practitioner is a language teacher who should have good qualities of teaching such as the ability to generate communication, flexibility and showing interest in the learners’ specialty.

The role of the ESP practitioner as a teacher implies a set of sub-roles as: classroom organizer, consultor, and negotiator. In some cases, he is asked to work one-to-one; it depends on clients’ ‘learners’ demands and expectations. This could be mainly found in business settings and companies where they are asked to provide language courses for staff members. Moreover, he needs to be flexible. Dudley-Evans et al (1998:14) state that: “The willingness to be flexible and to take risks is one of the keys to success in ESP teaching”. Because of his works’ conditions and situations the ESP practitioner is required to play different roles together at the same time.

2.10.2. ESP Practitioner as ‘Course Designer and Material Provider’

The ESP practitioner does not only teach but also performs other duties. There has been an agreement among researchers (Mackay et al, 1978; Swales, 1980; Robinson, 1991; Dudley-Evans et al, 1998) that he is required to design, set up and administer the ESP course. For instance, he needs firstly to plan his course, and provides materials, secondly. This latter should be relevant to his learners’ needs. At this level of analysis, Dudley-Evans et al (1998) explain the role of the ESP
teachers in providing materials that constitutes of the following process:

- Selecting materials which have been published;
- Adopting this material if it is not suitable;
- Writing their own materials, when it is not possible for them to find something suitable for the target situation.

It should be stressed here that most of employers favour the kind of materials written by the ESP practitioner himself and ignoring at the same time the ready-made materials even though they suit the learners’ needs. Swales (1980) states:

The role of the materials writer has become such a desirable characteristic of the ESP teacher in the eyes of employers that there is a danger that the advantages of published material are ignored even when that material is suitable for a given situation.

Quoted in (Dudley-Evans et al 1998:15)

The overriding thing to mention is that apart from designing suitable materials for his course, the ESP practitioner is invited to work in either collaboration or cooperation with other language teachers, subject specialists, learners and so forth.

2.10.3. ESP Practitioner as ‘Collaborator’

Teaching ESP is best practised through either collaboration or cooperation with subject specialist or by cooperation with learners. Dudley-Evans et al (1998:16) refer to the term cooperation: “When the ESP teacher finds out about the subject syllabus in an academic context
or the tasks the students have to carry out in a work or business situation”.

And collaboration: “When there is some integration between specialist studies or activities and the language”. According to them “the fullest collaboration is where subject expert and a language teacher team-teach classes.”

Along the same line, Kennedy et al (1984) relate the success of team-teaching to cooperation from both sides that of the subject teachers and ESP specialists along with mutual trust. It should be noted that cooperation and trust are considered to be the most essential ingredients for the success of such process. To collaborate, cooperate or team-teach classes seem quite helpful for the ESP practitioner who needs to be updated, and this can be achieved through keeping in touch with research.

2.10.4. ESP Practitioner as ‘Researcher’

ESP practitioner needs to be informed about a wide range of researches and studies in different areas of ESP like EBP, EST, ESS and to include and use the findings of research in his own situation to better cope with the learners’ needs. According to Dudley-Evans et al (1998:15):

An ESP practitioner has to go beyond the first stage of Needs Analysis -Target Situation Analysis (TSA) which identifies key target events, skills and texts- to observe as far as possible the situation in which students use the identified skills, and analyse samples of the identified texts.
2.10.5. ESP Practitioner as ‘Evaluator’

Various types of evaluation can be applied to ESP courses. Therefore, ESP practitioners are required to evaluate and assess their courses; they need to evaluate their learners’ achievements as well as their courses, and the teaching materials they use. In addition, they need to assess themselves, the teaching methods and approaches they follow, to check how much success can be brought to their classes.

Evaluation and assessment hold a crucial significance in ESP. In this vein, Dudley Evans et al (1998:17) write: “it is important to follow up with students some time after the course in order to assess whether the learners have been able to make use of what they learned and to find out what they were not prepared for”.

They, even, go further to state that “Evaluation through discussion and on-going needs analysis can thus be used to adapt the syllabus”. To be updated in terms of research evaluation and assessment will help the ESP practitioner better cope with the requirements of his learners’ needs and that of the target situation.

2.11. APPROACHES TO ESP TEACHING

Traditionally speaking, the three following approaches, i.e., Content-Based Approach, Task-Based Approach, and Lexical-Based Approach were used separately. In this work, the researcher assumes the need to combine the three approaches under one common approach which will hold the label of an ‘Eclectic Approach’.
Before dealing with the Eclectic Approach, it is advisable to introduce each approach separately, with definitions, and discuss the pros and cons of the outcome resulting from combining the three perspectives.

### 2.11.1. Content Based Approach

Most researchers (Brinton et al, 1989; Jordan, 1997; Richards, 2001; Brown, 2001) agree on the fact that, through the use of the Content-Based Approach, the learners benefit in two ways, i.e., the content, as well as the language. Hence, this may help to acquire the needed language in a meaningful context which is closely related to their fields of study or profession. In this sense, Krahnke (1987:65 quoted in Richards et al 2001: 204) defines Content Based Approach as: “the teaching of content or information in the language being learned with little or no direct or explicit effort to teach the language itself separately from the content being taught”.

Within the Content-Based Approach, the language activities are associated with subject matter being taught. In this regard, Brinton et al (1989:2):

*In a content-based approach, the activities of the language class are specific to the subject matter being taught, and are geared to stimulate students to think and learn through the use of the target language. Such an Approach leads itself quite naturally to the integrated teaching of the four traditional skills.*
Since any approach has not only a set of advantages which should be acknowledged for but also a number of disadvantages a language teacher is required to be aware of, and which may help language instructors adapt the kind of approach to the particular situation they are taking part in. The most important drawback, in this view, of the CBA is that the language teacher is almost a teacher of language and not content teacher; being unfamiliar with the area he is teaching, and lacking the field knowledge may represent an obstacle for the ESP practitioner.

2.11.2. Task Based Approach

It is commonly agreed among researchers that TBLT is regarded as one of the most prominent approaches to ESP teaching which implies that specific tasks are designed to meet specific needs through the establishment and the practice of defined skills. To practise and develop each skill separately or in combination to meet specific needs of the learners being academic, scientific or occupational is of crucial interest. Task Based Approach is, therefore, defined by Nunan (2004:216) as follows: “an approach to language teaching organized around tasks rather than language structures.”

TBLT has its own advantages because it favours tasks related to real-life where authenticity is a key-term in such a process and the learner is its central interest; gaining autonomy for his learning will help him better learn. Its main drawback is that teachers who may lack innovation cannot implement correctly this approach in their classes.
2.11.3. Lexical Based Approach

The main focus of this approach is to develop learners’ proficiency through lexis. According to Richards et al (2002: 304) it is: “an approach to language teaching that is based on the view that the basic building blocks of teaching and learning are words and lexical phrases, rather than grammar, functions or other units of organization”.

This confirms the view of Lewis (1993 quoted in Moudraia, 2001: 01) who considers that “language consists of grammaticalized lexis, not lexicalized grammar” which is regarded as the main element on which this approach stands. Providing rich lexis for the learners may help them better communicate. This may ensure later on, the improvement of their language proficiency.

As for its main drawbacks, it can be said that though providing rich lexis that may help learners achieve easy and better communication, teachers often find difficulties while putting their emphasis on only this approach. For example, dealing with only one word may take a long time, in addition to the endeavour made by teachers in terms of preparation.

2.11.4. Content and Language Integrated Learning ‘CLIL’

Today, most of scholars (Marsh 2002; Maljers et al 2007; De Zarobe et al 2009; Savic 2012) agree upon the fact that CLIL is an ‘educational approach’ with a number of ‘methodologies’ aiming at enhancing learners’ knowledge of the field they are concerned with, in addition to their level of language proficiency. In this vein, Savic (2012) writes
CLIL is the term used to describe a methodological approach in which foreign language tuition is integrated within subject teaching. This is not a new approach in Europe - it has been practised for about three decades - but the term was first officially used in the 1990s.

This view strengthens the idea mentioned previously by Hafenstein (2008) one of the authors of Macmillan series, the leader of CLIL materials in which he stresses on the fact that CLIL is based primarily upon the content or simply the topic. In most cases, CLIL uses English as the tool to teach other subject areas. According to Hafenstein, ‘fluency’ and ‘Communication’ are the two critical key concepts CLIL is concerned with.

In terms of syllabi that are intended to be used, Hafenstein (2008) maintains that “there is no predetermined language syllabus in CLIL”. This could be regarded as the first challenge any language teacher may face because the language teachers often lack a specialised; this prevents often them from functioning adequately in the target situation, the absence, then, of that syllabus could add extra troubles to those language instructors. This could be, in fact, perceived as one of those drawbacks of this approach.

In this line of consideration, Savic (2012) summarizes the main disadvantages of CLIL in the following two headings; ‘teachers’ competences’ and the ‘lack of appropriate CLIL materials and resources’. The former deals with the teacher’s ability to handle both language and content and implies that the language instructor is supposed to develop a competence in a subject area alongside the one he is specialised in, i.e., language teaching. The latter denotes that there is a serious shortage in materials and resources developed mainly to cover topics in CLIL which could be regarded as another issue most of teachers may face if they wish to adopt this approach in their classes.
Nevertheless, this approach has been acknowledged for the following reason: to learn in a meaningful context where topics are almost familiar to students would have a positive impact on learners’ attendance, motivation and even on their achievements and language proficiency as they develop a type of knowledge relevant to their field of study where communication and fluency.

(Hafenstein 2008 and Savic 2012)

To conclude, it can be stated that implementing one of the previous cited approaches separately in teachers’ classes, or through a combination of those approaches under the label ‘eclecticism’ where matching learners’ content disciplines with the language being used, choosing appropriate tasks while addressing not only lexis, but surpassing this latter to reach other aspects, is a matter of the teacher choice. In this regard, Hutchison et al (1987: 51) write: “It is wise to take an eclectic approach, taking what is useful from each theory and trusting in the evidence of your own experience as a teacher”.

Therefore, to be aware of the learners’ needs may help our ESP teachers choose and later on adapt the course to the appropriate situation they are taking part in, will be of great benefit for them and their learners, as well.

2.12. A Review of ESP Teacher Training Programme Worldwide

To provide this work with solid foundations, a variety of ESP teacher training programmes have been reviewed and reflected upon in the following lines. Our attention will be confined to a set of examples from different parts of the world. This is done in a moderate contribution towards listing the available ESP teacher training courses
worldwide, in addition to providing a fresh look on the main components of those courses depending on a set of variables among them the level of support provided by the decision makers in each country.

Before tackling these examples, it is worth mentioning that there are two types of training: national or public training courses offered at public institutions and private programmes provided at private institutions. This could be mainly explained by the fact that today many private institutions are providing courses to train teachers in a wide range of areas including: ESP, EBE, EAP, etc. They offer, even, courses at companies to train workers either in small groups or one to one. Another category of those courses is called ‘tailor-made courses’ where those courses are tailored or designed to meet the trainees’ real needs, their level of English language proficiency, their actual situation and future prospects, in case the customer asks for a type of ESP courses which is not included in the list that the school or institution offers.

2.12.1. National/ Public Training Courses

In what follows, a number of national ESP training courses from different parts of the world will be reviewed respectively.

2.12.1.1. EST Teacher Training Course Chile (Ewer, 1983)

a. Audience

✓ Future EST teachers;
✓ Future teacher trainers;
✓ Practicing teachers.
b. Criteria for Admission and Financial Support

University of Chile at Santiago, English Departments, offers a specialised training in the English language where trainees are rewarded with the State Teacher of English degree to take up appointments in the secondary schools and universities.

c. Duration

Extensive course: at least 150 to 200 hours, i.e., several sessions a week for more than one term.

d. Course Aims

The course aims to help trainees remove their attitudinal, conceptual, linguistic, methodological and organisational difficulties.

e. Methodology and Course Structure

The course is divided into two main elements; practical and theoretical classes. The former aims to assist learners to widen their knowledge of the language of ‘Sciences and Technology’ and its main concepts. The latter endeavours to familiarize trainees with the work of science and scientists, and create a positive attitude towards Sciences and Technology. Practical classes in addition to microteaching component are used to put the students’ ideas on methodology into real practice. Eventually, learners are invited to work in pairs to prepare EST classes including the writing of a teaching material which they will teach it to their classmates, later on. The latter intends to provide learners with a working knowledge of the teaching of EST.

f. Course Outline/ Components

The following diagram illustrates the main components of the training programme developed by Ewer to the EST teachers at Santiago decades ago.
Chapter Two

Diagram 2.5. Components of EST Teacher Training Programme Chile
(Adapted from Ewer, 1983)
2.12.1.2. Minimal Teacher Training for ESP, Italy by
(Cortese, 1985)

a. Audience
EFL teachers

b. Duration
3 hours session towards the end of 100 hours in-service training course.

c. Course Aims
To provide trainees with some usable notions in ESP, to encourage participants evaluate teaching materials and discuss classrooms procedures.

d. Methodology and Course Structure

The training has started in a form of a seminar where an interview has taken place. Asking and answering questions revolving around knowledge in ESP while using a handout and a selected reading list is considered as the first path in this course. In this regard, oral treatment of the handout has created a relaxed atmosphere where trainees are supposed to grasp much better than those restricted environments. Presenting a case study followed by a group work which leads to a discussion has fully involved all the participants as they are invited to reflect upon the situation in question. The case here is that of “planning a course for hotel personnel”

e. Course Outline/ Components
The main components of the course can be summarised in the following headings:

✓ Basic information on ESP;
✓ Procedures for course design;
Criteria for selecting or establishing classroom procedures;
A case study “Planning a course for hotel Personnel”.

2.12.1.3. Russian Education Support Project on Specialist English RESPONSE Russia, (Scholey, 2005)

a. Audience
ESP teachers

b. Financial Support
Many organizations have taken part in sponsoring RESPONSE project at two levels; financially and logistically. It could be stated, then, without the support of the Ministry of Education, the British Council, the Volga Foundation, The United States Bureau of Educational and Cultural Affairs ‘BECA’ and participating university administrations.

c. Certification
A new certificate in Teacher Development for Teaching ESP (Cert TDESP) proposed by Marjon International Project consultant and the Russian Project Manager.

d. Course Duration
108 hours course with 72 contact and 36 self-study hours started in 2002 with 50 trainees and doubled in 2003, and reached 300 trainees by 2004.

e. Course Aims
The central focus of this current course is to provide teachers with assistance and invite them to reconsider and widen their own philosophy of teaching ESP which could be achieved through awareness activities, practice and reflective activities.
In doing so, theoretical and practical issues are clearly explained to engage ESP trainees in reflecting upon the teaching / learning situation they are taken part in. To generate new channels for participants to be fully involved in reviewing those techniques, activities and materials appropriate to ESP teaching. Eventually, increasing ESP teachers’ professional confidence through the exploration of a number of key strategies and skills for professional self-development is considered as one the most important aims the projects stands on.

f. A Pre-training Task
Trainees who have been judged to be weak in oral should take a Cambridge Certificate in Advanced English Examination CAE as a proof of proficiency.

g. Methodology and Course Structure
The project has been divided into three main parts where the course has been delivered in a form of seminars and workshops. The parts are:

1. Part one: includes seven parts with self-study materials.
2. Part two: reserved for classroom observations visits.
3. Part three: participants work on either materials or syllabus design and development.

h. Course Outline/ Components
The first part of the RESPONSE project includes the following seven modules:

- Discovery of Core Principles;
- The Learner and Learning;
- The Ways We Teach;
- The ESP Syllabus;
✓ The Potential of Materials;
✓ Classroom Practice;
✓ Rediscovering Principles.

2.12.2. Private Courses/ Private Institutions

Having presented an overview of the national ESP training courses, a significant outlook on those programmes presented at a number of private institutions worldwide is worth mentioning.

2.12.2.1. Introduction to Teaching English for Technical Purposes ‘ITELP’, Germany (PYRAMID Group, 2012)

a. Audience and Criteria for Admission
✓ Experienced teachers of Technical English;
✓ Teachers of English as a Foreign Language;
✓ Interested EFL teachers in starting a career in ESP teaching.

Minimal participants in the course are eight.

b. Financial Support

Participants outside Germany have the possibility to apply for funding through EU Grundvig programme. However, trainees based in Germany have the chance to ask for 50% of the course funding in the case they apply for Bildungss check programme. As for ordinary participants, the course costs 990 Euro.

c. Certification

At the end of the course, trainees are rewarded with a teacher training certificate to prove that they have taken part in the course.
offered by the PYRAMID Group entitled ‘Introduction to Teaching English for Technical Purposes’.

d. Course Staff

Five trainers with more than twenty years of teaching experience holding: CELTA, DELTA, DTESOL or MA in ELT and being active members in IATEFL Association, Technical writers and translators.

e. Course Duration

Five days intensive course.

f. Course Aims

☑ Develop trainees teaching skills;
☑ Learn new techniques;
☑ Meet new colleagues;
☑ Work with high quality materials designed by experts in the field of Technical English;
☑ To be affective teachers of Technical English.

g. Pre-training Tasks

Each participant is given a pre-training assignment which constitutes one of the difficulties he may face. e.g.: creating a placement test for Technical English students and the end of the course, one trainer is supposed to help the trainee solve the issue.

h. Methodology/ Course Structure

The course is delivered in a form of; seminars and workshops where group works are mainly favoured. As a result, practical and hands-on course content can easily be applied in the real situations.
i. **Course Outline/ Components**

The course is structured in the following way: five days and four components per day.

- **Day One**
  - Methodology;
  - Needs Analysis;
  - Course and Syllabus Design;
  - Creating a Course from Scratch;

- **Day Two**
  - Authentic Materials;
  - Technical English Vocabulary Development;
  - Language Form and Function in Technical English;
  - Technical Background and Knowledge for the English Teacher.

- **Day Three**
  - Using Games in Technie Classroom;
  - Reading Activities;
  - Materials Development;
  - Challenges for Technical English Teachers.

- **Day Four**
  - Teaching Writing Skills to Technical Professionals Part One;
  - Teaching Writing Skills to Technical Professionals Part Two;
  - People Skills Language in Technical English Part One;
Day Fives

- Shared Lesson Ideas and Digital Resources with each other (Pre-Course Assignment);
- Online Resources;
- Pre-Course Task Analysis and Materials Development;
- Feedback.

2.12.2.2. **Certificate in International Business English Training, English UK / Trinity College London, Hungary** (MARK POWELL, 2012)

**a. Audience and Criteria for Admission**

Both Native and Non-Native Speakers of English have the chance to attend the course. Yet, they need to meet a set of criteria determined by the institution. Among these criteria trainees are asked to have at least a Bachelor degree level, CELTA or a first degree from a recognised institute of Higher Education in English. One year of teaching experience, i.e., English, with a minimum of 15 hours per week over a 32 week period. Previous experience of around 40 hours of teaching Business English is also recommended but not a must. For Non-Native speakers of English, a Cambridge Proficiency Test is almost needed.

**b. Financial Support**

Participants have two possibilities either to apply for EU funding or to pay 900 Euro as the fees of the course attendance.

**c. Certification**

After almost attending 100% of the course sessions and submitting their post-training tasks trainees will be rewarded with the certificate Cert IBET Course.
d. Course Duration

It is an intensive course. Nine days with fifty hours plus six additional hours is the amount of time reserved for the course.

e. Course Aims

The aims of the course adopted from POWELL (2012) are listed as follow:

✓ to inform, stimulate and motivate teachers moving into or moving on in a career in Business English teaching;
✓ to introduce participants to current theories in professional language learning, human resource development and Business English language and communication analysis;
✓ to familiarise participants experientially with Business English teaching techniques and procedures together with a wide range of published and unpublished materials in text, cassette/CD, video/DVD, CD-ROM or online format;
✓ to foster the skills of conducting needs analyses and language audits, planning, and evaluating courses and designing and/or adapting Business English materials;
✓ to equip participants to teach in a number of typical training situations: in the in-work and tertiary sectors, extensively in-company and in class, intensively on residential courses, in large and small classes and one to one, through tele-lessons, e-lessons, and blended learning;
✓ to deepen and extend participants' ability to tackle key professional skills areas: meetings and videoconferencing, presenting and web presentations, e-
mail, correspondence and report writing, telephoning and teleconferencing, networking and socialising;
✓ to introduce participants to so-called 'hard' Business English specialist areas: HR, finance, marketing, production and operations, IT and technical support;
✓ to give participants a basic background in the world of international commerce, business practice and current management 'hot topics';
✓ to promote intercultural awareness in a business context.

f. Post-Training Tasks
Trainees are invited to submit an assignment of no more than 3000 words within twelve weeks of the course accomplishment date to claim their eligibility for the course certificate.

g. Methodology/ Course Structure
The proposed course is in a form of a combination input discussion workshops sessions.

h. Course Outline/ Components
The course is divided into seventeen modules which could be listed in the following order:

1. Introduction to Business English;
2. A Lexical Approach to Business English;
3. Meetings and Interviews;
4. Roleplays, Simulations and Case Studies;
5. Telephoning;
6. E-Mail, Faxes, Letters, Reports;
7. Exploiting Authentic Materials;
8. Intercultural Awareness;
9. Presentations;
10. Q&A Sessions;
11. Negotiations;
12. Teaching Business English One to One;
13. Learning Styles;
14. Business Background;
15. Business English Exams;
17. Needs Analysis, Course Planning and Evaluation.

2.12.2.3. The Business English Teachers' course, IH Barcelona (Brian, 2012)

a. Audience
Qualified and practising teachers who are either already working in this field, i.e., Business English or interested in doing so. The number of trainees is between six and twelve participants. They must have either CELTA or equivalent and at least two years teaching experience.

b. Financial Support
IH Barcelona is a private institution where there is no possibility for funding through governmental and non-governmental scholarships. Hence, participants are supposed to pay their training sessions which revolve around 700 Euros.

c. Certification
After accomplishing the tasks and the training sessions candidates are rewarded with IHTT Certificate.

d. Course Duration
Five days intensive course with 35 working hours.

e. Course Aims
The training aims to increase both the competence and confidence of those teachers working in the area of Business English Teaching.
f. Pre-training Tasks

As a part of the pre-training assignments, trainees are required to read the following:

- Dudley-Evans & St John: *Developments in English for Specific Purposes* (CUP 1998)
- Ellis & Johnson: *Teaching Business English* (CUP 1994)
- Frendo, Evan: *How to Teach Business English* (Longman 2005)
- Council of Europe: *Common European Framework of References for Language* (CUP/Council of Europe 2001)
- Wilberg, Peter: *One to One: A Teacher's Handbook* (LTP, 1987)

g. Methodology/ Course Structure

The course is delivered in a wide range of forms including seminars, workshops, group and pair work, presenting case studies, courses and developing syllabus.

h. Course Outline/ Components

The content of the course is mainly divided into three parts: Basic Business Awareness, Professional Skills, and Methodology and Materials. The following list includes all the modules trainees are supposed to be trained in:

1. An introduction to ESP;
2. Business Vs General English;
3. The design and administration of needs analysis;
4. Course design & extended simulations;
5. A review and evaluation of published materials;
6. Published & authentic video material for Business English;
7. Sourcing material from the Internet;
8. Approaches and techniques for teaching one to one;
9. The use of case studies and simulations;
10. Teaching lexis for Business English;
11. Using the telephone in a business context;
12. Delivering oral presentations;
13. Error analysis: working from students' mistakes;
14. Participating in meetings, negotiations and discussions;
15. Language analysis, the nature of certain types of business discourse;
16. Working from authentic materials;
17. Learner feedback: listening to your students.

After almost having a look at the main components in a number of programmes developed and implemented worldwide in both sectors; public and private one, it can be stated that having a careful look at the major ingredients in those training is of paramount importance. Nevertheless, to claim the success of any training other parameters should be taken into serious consideration. In this line of consideration, Kennedy 1983 lists a number of factors of equal importance in the design of any teacher training programme. Those factors can be summarised in the following way:

✓ The status and the use of English;
✓ Teaching situation the teacher comes from, to which he may be returning and for which he is being prepared;
✓ Teacher himself: Native or Non-Native Speaker of English. What his competence in English is on joining the course, what level is expected to be achieved at the end of the course?
✓ Whether the course provides initial, in-service or post-experience training?
✓ The administrative factors common to all planning: time, personnel, resources and finance.

As a final connotation to this section, it could be stated that among those possible approaches to the design of ESP teacher training programme is the one suggested by Kennedy 1983. This could be clearly seen in the next figure:

![Diagram](https://via.placeholder.com/150)

**Figure 2.1. An ESP Approach to the Design of Teacher Training Courses** (Adopted from Kennedy, 1983: 9)

As mentioned in the previous figure, the approach suggested by Kennedy (1983) undergoes five main levels. These latter may vary according to the nature of the situation and the characteristics of the learners. To put it differently, being a Native or Non-Native Speaker of English with a high or a low command of the language may have further impacts on the proposed approach. According to Kennedy
(1983), Native Speakers with a full command of English language may need assistance only in level one and two; no need to go further. Others may extend this latter to level three, i.e., to help them acquire a set of skills appropriate to their ESP teaching/learning situation. On the other hand, Non-Native Speakers of the target language need special assistance in levels three, four and even five. This could be explained by the fact that in most of the cases, many Non-Native instructors of English have a low command of the language itself, then, they do not need only assistance in acquiring professional skills but also a further consolidation of their linguistic competence.

Although Kennedy (1983) has proposed the current approach decades ago, none would deny its importance which constitutes, today, an addition to the main literature concerned with the design of ESP teacher training programmes. Moreover, after listing the main important training programmes offered worldwide, one may say that a combination of those programmes and approaches could be seen of crucial value to the current work. This could be clearly noticed in the next chapter, where this short review is regarded as the first stone in developing and implementing a training designed mainly to ESP teachers working at the Physics department of Tlemcen University.

2.9. CONCLUSION

It could be wise to state that reviewing the available literature revolving around ESP as a field of study along with teachers’ preparation set sail in uncharted waters is believed to be a challenging task. The review of relevant literature of both lands, i.e., teacher training and ESP has shown that there is still a lot to know about those areas of research. Learners’ needs may vary; their expectations may go beyond teachers’ knowledge and readiness which could be accepted as the initial phase in a very long trip. Its clear direction cannot only be
drawn unless language instructors could put the first path in its right scene to choose what is appropriate and what is not, and pave the way for other practitioners to adopt other positive attitudes towards the land, its inhabitants, and its internal and external surrounding circumstances.
CHAPTER THREE

RESEARCH METHODS AND PROCEDURES
Chapter Three

Research Methods and Procedures

3.1. INTRODUCTION

3.2. THE RESEARCH METHODOLOGY
   3.2.1. Action Research Overview

3.3. THE DESIGN OF THE STUDY

3.4. SAMPLING

3.5. THE ACTION RESEARCH PROJECT
   3.5.1. The Pre-Training Phase
      3.5.1.1. The Physics English Teacher Course Overview
      3.5.1.2. Course Aims and Objectives
      3.5.1.3. Course Materials
      3.5.1.4. Course Syllabus
   3.5.2. The Training Phase
   3.5.3. The Post-Training Phase

3.6. INSTRUMENTATION
   3.6.1. Interview
   3.6.2. Test
   3.6.3. Questionnaire

3.7. DATA ANALYSIS METHODS

3.8. CONCLUSION
3.1. INTRODUCTION

The primary aim of this chapter is hopefully to provide the reader with a clear picture of the research design and procedure. It attempts to describe the informants and the main instruments of data collection which have been adopted, implemented and tested while carefully addressing the validity and reliability of the research tools, and later on the results.

3.2. THE RESEARCH METHODOLOGY

The present section attempts to provide answers to the three essential questions in conducting any research work in whatever area of interest, notably for whom, why, and how the present study has been conducted. The purpose of the action research is to check whether the procedures adopted have facilitated the task for those practitioners by helping them to function adequately in their target situation or not. The case study revolves around an in-service teacher training programme which is conceived to be an effective means to enhance the professional qualifications of the already engaged ESP practitioners in a scientific context, i.e., physics.

The next section is an overview of action research including its main definitions, characteristics, and its models which seem to be appropriate for the current study, as well as the main steps and activities which such Action Research may undergo.

3.2.1 Action Research Overview

While trying to trace back the available literature related to action research, one may notice that there is no unique definition. Most researchers have not agreed upon one accepted common interpretation. For the purpose of the current study, an eclectic definition is believed to be an acceptable alternative. The eclecticism may act as a facilitating
tool for better grasping the task at hand. In this vein, Action Research will mainly be seen as ‘self-reflective enquiry’ (Kemmis et al, 1986) where the central aim is to bring change to a situation (Bogdan et al, 1982) as the process of collecting data is fulfilled mainly in a systematic way (Wallace, 1998) and it is regarded as a highly flexible research process. (Burns, 1999)

To go further in establishing this eclectic definition, the main characteristics of action research should be outlined in the following ways. It is ‘situational’ as it is concerned with a particular milieu. It is ‘collaborative’ as it encompasses not only practitioners but goes beyond to reach academics, decision makers, experts, i.e., those who are classified and labelled ‘the outsiders’. It is ‘participatory’ as the researcher is fully involved in this process of diagnosing a particular problem, and then providing remedies after achieving a set of definite phases. It is ‘critical’ since the focus is to bring change. It is ‘self-evaluative’ in the sense that it is an ongoing process where evaluation and assessment are key-concepts. It is ‘theoretical and practical’; the central issue for the investigators is to establish a bridge between theory and practice which can mainly be set via ‘research into teaching’ as part of a ‘continuous professional development’ of the already engaged practitioners for the sake of a better professionalization of the teaching/learning process. (Bell, 1987; Winter, 1989, Zuber-Skerritt, 1992, 1997; Cohen et al, 1994; Willcoxson, 1994)

It is also vital for the researcher to outline the set of shortcomings of the approach adapted to carry out this investigation. In this vein, many scholars (Popkewitz, 1984; McNiff, 1988; Adelman, 1989; Robson, 1993; Teddlie et al, 2000) have viewed action research as subjective based on the researcher’s own experience because he seeks innovation for his own better change. It is context specific as it is based on an
observed phenomenon in a particular situation where generalization of findings seems to be difficult, time consuming, and even impossible.

Recent researchers however have argued that action research can be regarded as a source of ‘scientific knowledge generation’ (Greenwood et al, 2007; Coghlan et al, 2010; Coghlan, 2011) where a wide variety of research tools, methods, techniques and procedures are all encompassed in a larger unit called simply a study. Informants are considered, in this case, the source of knowledge while sharing their experiences, reflecting upon their situations and providing feedback. Implementing this type of research may aim either at activating their background knowledge of the field they are concerned with, or acquiring new knowledge. In this dissertation the focus is chiefly placed upon gaining knowledge in sciences and technologies, particularly physics, which can be tested and reflected upon. This may help the researcher, later on, to claim the validity of the study. Expanding on this idea, it can be said that with the adoption of this type of research theory, data can be generated from practice, and cyclically that the process is also reversed because through practice theory can be formulated.

The following diagram outlines the theoretical framework for the current study. Its relevance and usefulness could not initially be verified until the different steps of the research itself had proceeded through a cycle. This model is taken from O’Briens (1998) who has adapted it from Susman (1983)
Diagram 3.1. Action Research Model  
(Susman, 1983 quoted in O’Brein, 1998)

In the following table, one may clearly see the five essential steps this study and similar studies may go through:
<table>
<thead>
<tr>
<th>Steps</th>
<th>The Main Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosing</td>
<td>✓ Analysing the situation;</td>
</tr>
<tr>
<td></td>
<td>✓ Stating the problem;</td>
</tr>
<tr>
<td></td>
<td>✓ Establishing a general idea about the framework of the study;</td>
</tr>
<tr>
<td></td>
<td>✓ Asking questions to provide answers.</td>
</tr>
<tr>
<td>Action Planning</td>
<td>✓ Providing answers to three important questions: why, how and for whom, i.e., the reason behind the implementation of such a study, procedures, methods, tools and population;</td>
</tr>
<tr>
<td></td>
<td>✓ Outlining the actions which should be done;</td>
</tr>
<tr>
<td></td>
<td>✓ Defining the remedies.</td>
</tr>
<tr>
<td>Taking Action</td>
<td>✓ Implementing action for the sake of insuring remedies for this particular case.</td>
</tr>
<tr>
<td>Evaluating</td>
<td>✓ Observing, collecting, classifying and analysing data.</td>
</tr>
<tr>
<td>Specifying Learning</td>
<td>✓ Identifying, evaluating, assessing and reflecting about general findings;</td>
</tr>
<tr>
<td></td>
<td>✓ Outlining the set of limitations;</td>
</tr>
<tr>
<td></td>
<td>✓ Calling for further research.</td>
</tr>
</tbody>
</table>

*Table 3.1:* Selected Steps and Activities of Action Research
Debate about the value of action research is likely to continue. In particular, questions are frequently asked about which research method is better and which one suits the researcher’s own needs, views and expectations. This debate has revolved around two prominent research approaches: qualitative Vs quantitative.

As it is shown in the table below, five elements have been compared to provide an understanding of the most important foundations each approach depends upon.
<table>
<thead>
<tr>
<th>General Framework</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Seeks to confirm hypotheses about phenomena.</td>
<td></td>
<td>Seeks to explore phenomena.</td>
</tr>
<tr>
<td>• Instruments use a more rigid style of eliciting and categorizing responses to questions.</td>
<td></td>
<td>Instruments use a more flexible, iterative style of eliciting and categorizing responses to questions.</td>
</tr>
<tr>
<td>• Uses highly structured methods such as questionnaires, surveys, and structured observation.</td>
<td></td>
<td>• Uses semi-structured methods such as in-depth interviews, focus groups, and participant observation.</td>
</tr>
<tr>
<td>Analytical Objectives</td>
<td>• Quantify variation.</td>
<td>• Describe variation.</td>
</tr>
<tr>
<td>• Predicts causal relationships.</td>
<td>• Describes and explain relationships.</td>
<td></td>
</tr>
<tr>
<td>• Describes characteristics of a population.</td>
<td>• Describes individual experiences.</td>
<td>• Describes group norms.</td>
</tr>
<tr>
<td>Question Format</td>
<td>• Closed.</td>
<td>• Open-ended.</td>
</tr>
<tr>
<td>Data Format</td>
<td>• Numerical (obtained by assigning numerical values to responses).</td>
<td>• Textual (obtained from audiotapes, videotapes, and field notes).</td>
</tr>
<tr>
<td>Flexibility in Study Design</td>
<td>• Study design is stable from beginning to end.</td>
<td>• Some aspects of the study are flexible (for example, the addition, exclusion, or wording of particular interview questions).</td>
</tr>
<tr>
<td>• Participant responses do not influence or determine how and which questions researchers ask.</td>
<td></td>
<td>• Participant responses affect how and which questions researchers ask.</td>
</tr>
<tr>
<td>• Next Study design is subject to statistical assumptions and conditions.</td>
<td></td>
<td>• Next Study design is iterative. That is, data collection and research questions are adjusted according to what is learned.</td>
</tr>
</tbody>
</table>

**Table3.2.: Quantitative Vs Qualitative Research Approaches**

(Adopted from Mack et al, 2005:03)
Based on the above mentioned table and for the sake of insuring the reliability of this study, the researcher has decided to adopt the view of Burns (1999: 24) who strongly argues that: “Neither these two broad approaches [i.e., qualitative and quantitative] should be seen as superior to the other. They each take a different view of the nature of knowledge and have different goals and functions”.

She moves even further, maintaining that: “The key point is that different methods and procedures need to be selected according to the three different kinds of purposes for undertaking the research”. (p,24)

To restate then, the research objectives are regarded as a first step in deciding upon the most suitable research methods for this work. In practice it was found that both types of research methods were needed due to the nature of the ‘action research’ study. For that reason, the researcher had recourse to the use of interviews, questionnaires and tests to gather qualitative and quantitative data.

Most researchers agree that quantitative and qualitative data are of equal importance. The aim behind the selection of quantitative design in this project is, essentially, to afford numerical data which can be easily, systematically and objectively measured. Qualitative methods, on the other hand, are used to get a deeper insight into the EST teaching situation at the level of the physics department under study before, during and after the training sessions. In this regard, measuring the training effectiveness and the degree of our informants’ satisfaction is mainly done to draw a clear picture of the situation. To meet this end, Dörnyei (2007:43) maintains that: “the qualitative should direct the quantitative and the quantitative feedback into the qualitative in a circular, but at the same time evolving process with each method contributing to the theory in ways that only each can.”
Consequently, and based on the nature of the actual research work which has required different types of research data, tools, and techniques, a mixed-method approach seemed to be the most appropriate. This was primarily reflected in the combination of both quantitative and qualitative methods within a single research project to provide answers to the already established research questions.

3.3. THE DESIGN OF THE STUDY

The following diagram displays the overall research methodology which was adopted in the study and reveals how data were collected from different sources using a variety of procedures, and research instruments, and later on how their analysis proceeded. One must know that a set of tasks evolved simultaneously with the project as it was designed, implemented, evaluated and reflected upon.
Diagram 3.2. The Overall Design of the Study
3.4. SAMPLING

A quick look at the available literature in the field of research methodology has shown that selecting an appropriate sample which meets the overall objectives, structure and the nature of the work is of vital importance. In this vein, Dörnyei (2007:96) defines a sample as: “the group of participants whom the researcher actually examines in an empirical investigation” and the population as “the group of people whom the study is about”.

Selecting a sample can be accomplished following two methods; a *probability* or a *non-probability* one. In this case, the investigator is the only one who can reliably settle on the method which suits his or her research work. Cohen *et al* (2011) maintain that the differences between those two methods can be seen in the ‘chances’ of being selected. For ‘a probability sample’ those chances are ‘known’ while in a ‘non probability sample’ they ‘are unknown’. According to Cohen, ‘inclusion’ and ‘exclusion’ are the key-concepts; either to include members or exclude others by chance for a probability sampling or to decide ‘definitely’ which to include and which to exclude.

A final element required for those who want recourse to the use of a non-probability sampling is that they need to be aware of limits to generalization: the sample “does not represent the wider population; it simply represents itself.” (Cohen *et al*; 2011: 155). Other researchers (Remenyi, 1998; Patton, 2002; Singh and Bajpai, 2008; Cohen *et al*, 2011) have shared the view that a non-probability method of sampling is mainly used in qualitative research, action research and in small-scale projects.
As the researcher has opted for a mixed-method approach to collect data, the following table serves to outline and define the major techniques used in sample selection. The table should minimize any chance of ambiguity about procedures.

<table>
<thead>
<tr>
<th>Sampling Scheme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>Every individual in the sampling frame (i.e. desired population) has an equal and independent chance of being chosen in the study.</td>
</tr>
<tr>
<td>Stratified</td>
<td>The sampling frame is divided into subsections comprising groups that are relatively homogeneous with respect to one or more characteristics and a random sample from each stratum is selected.</td>
</tr>
<tr>
<td>Cluster</td>
<td>Selecting intact groups representing clusters of individuals rather than choosing individuals one at a time.</td>
</tr>
<tr>
<td>Systematic</td>
<td>Choosing individuals from a list by selecting every $k^{th}$ sampling frame member, where $k$ typifies the population divided by the preferred sample size.</td>
</tr>
<tr>
<td>Multistage Random</td>
<td>Choosing a sample from the random sample schemes in multiple stages.</td>
</tr>
<tr>
<td>Maximum Variation</td>
<td>Choosing setting, groups and/ or individuals to maximise the range of perspectives investigated in the study.</td>
</tr>
<tr>
<td>Homogeneous</td>
<td>Choosing setting, groups and/ or individuals based on similar or specific characteristics.</td>
</tr>
<tr>
<td>Critical Case</td>
<td>Choosing setting, groups and/ or individuals based on specific characteristic (s) because their inclusion provides the researcher with compelling insight about a phenomenon of interest.</td>
</tr>
<tr>
<td>Theory-based</td>
<td>Choosing setting, groups and/ or individuals because their inclusion helps the researcher to develop a theory.</td>
</tr>
<tr>
<td>Confirming/ Disconfirming</td>
<td>After beginning data collection, the researcher conducts subsequent analyses to verify or contradict initial results.</td>
</tr>
<tr>
<td>Snowball/chain</td>
<td>Participants are asked to recruit individuals to join the study.</td>
</tr>
<tr>
<td>Extreme Case</td>
<td>Selecting outlying cases and conducting comparative studies.</td>
</tr>
</tbody>
</table>
analyses.

**Typical Case**
Selecting and analysing average or normal cases.

**Intensity**
Choosing setting, groups and/or individuals because their experiences relative to the phenomena of interest are viewed as intense but not extreme.

**Politically Important Case**
Choosing setting, groups and/or individuals to be included or excluded based on their political connection to the phenomena of interest.

**Random Purposeful**
Selecting cases from the sampling frame and randomly choosing a desired number of individuals to participate in the study.

**Stratified Purposeful**
Sampling frame is divided into strata to obtain relatively homogeneous subgroups and a purposeful sample is selected from each stratum.

**Criterion**
Choosing settings, groups and/or individuals because they represent one or more criteria.

**Opportunistic**
Researcher selects a case based on specific characteristics (typical, negative or extreme) to capitalise on developing events occurring during data collection.

**Mixed Purposeful**
Choosing more than one sampling strategy and comparing the results emerging from both samples.

**Convenience**
Choosing settings, groups and/or individuals that are conveniently available and willing to participate in the study.

**Quota**
Researcher identifies desired characteristics and quotas of sample members to be included in the study.

**Multistage Purposeful Random**
Choosing settings, groups and/or individuals representing a sample in two or more stages. The first stage is random selection and the following stages are a purposive selection of participants.

**Multistage Purposeful**
Choosing settings, groups and/or individuals representing a sample in two or more stages in which all the stages reflect purposive sampling of participants.

<table>
<thead>
<tr>
<th>Table.3.3. Major Sampling Schemes in Mixed-methods Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopted from (Teddlie and Tashakkori, 2010: 359)</td>
</tr>
</tbody>
</table>

91
After examining sampling options, the researcher decided to use a form of criterion sampling. The reason for this was that selecting participants based on a set of criteria meets the overall character of the research, i.e., the design and implementation a formal training process. The project’s major aim could be summarised as finding the best way to enhance the professional qualifications of a number of ESP practitioners being recruited into the Department of Physics.

Therefore selecting one or more suitable criteria could be the first step for the researcher in choosing the best participants. In this regard Dorney (2007: 128) writes: “The researcher selects participants who meet some specific pre-determined criteria (for example, company executives who failed an important language exam).”

For the purposes this research work, the investigator decided to determine a set of particular criteria by which the participants could be selected. Trainees were chosen based on two main criteria, notably their educational background and their personal and professional commitment. In other words, they were eligible for the study and hence recruited only if they met the following criteria:

1. Had a magister in ESP and had undergone a pre-service ESP teacher preparation program.
2. Showed a positive attitude towards science in general and physics, in particular.
3. Accepted a requirement to attend all the training sessions; seminars and workshops.
4. Agreed to be fully involved in the study, i.e., to answer both pre- and post-test tasks besides, pre- and post interview questions.
5. Accepted an offer to be recruited with a one year renewal contract by the Faculty of Exact Sciences, Physics Department.

As for the language learners (as distinct from the teachers), the two following additional criteria were taken into serious consideration while selecting them:

1. They should attend all their courses with only three absences maximum during the whole academic year.
2. They should agree to fill in the form and answer all the questions in order to provide feedback on the teaching performance of their instructors.

Consequently, the informants for this study consisted of eight (08) language teachers who agreed in the actual work, and who fulfilled the already mentioned criteria.

Another essential parameter to evaluate when analysing who took part in this project was the actual learners because their presence was of equal importance to that of their teachers. That is, the language learners were considered to be a mirror which reflected the teaching experience and thus offered useful insights. Their observations and remarks, the degree of their satisfaction with the content, and the way the course is conducted were all significant. Their feedback was regarded as an additional tool which could be used to test their teachers’ professional evolution. In total, eighty (80) learners were enrolled in this study. The researcher recognized of course that each learner had particular characteristics which would affect their response to any classroom situation. That is, the mirror metaphor has its limitations. Nevertheless, in aggregate the responses of the students were felt to provide strong signals about the effectiveness of the teaching.
This research work dealt with the ESP practitioners in the study as a sample population of those teachers who worked at the physics departments of Tlemcen University during the academic year 2011-2013. In this context, it is necessary to mention that due to the expectations of the department, eleven teachers were recruited, but only eight teachers were included in the present study. This could be further explained in the following way: three teachers additional did attend the training sessions but were considered not to fulfil the full criteria for the research. Their participation was disregarded because their background education did not meet the first condition, i.e., to have a Magister in ESP. The three participants held either a magister in Sociolinguistics, American Studies or TEFL.

A further point of contextual background is that before implementing this current project the researcher conducted another study as a part of her magister thesis. This earlier work was carried out during the period (2009-2011) and aimed at diagnosing the particular situation and conditions under which Algerian tertiary language teachers worked in three faculties: Law and Political Sciences, Economics and Commercial Sciences, and Exact Sciences. This prior study constituted a type of needs analysis and the starting point for the current work.

To insure continuity of the project, to test its effectiveness, and to reflect upon its main achievements and drawbacks, the researcher organised a series of meetings with the dean of the faculty, the head of the physics department and a number of subject specialists. The involvement of these external parties helped to embed the project in the wider plans of the institution and gave it a realistically practical orientation. In particular, it was found productive to expose the results of the needs analysis and further explain the motives, rationales, and
expectations behind the implementation of this research, and to ask for institutional assistance as far as the following issues were concerned:

- The need to recruit teachers for more than one academic year, or less ambitiously to at least offer a renewal of their contracts;
- The need to collaborate with subject specialists to design tests for the language teachers to test their basic knowledge in physics;
- The need to train language teachers in physics.

A last point which cannot be missed out in sample selection is the oversight of the trainers themselves and the project evaluators. Before, fully activating the research programme, the researcher discussed the programme components and the tasks with a number of pioneers in the field. Four foreign reviewers accepted a request to send their feedback. Those who are called in the present work ‘the programme reviewers’ are well known in the area of ESP worldwide. Among them is Brian Brennan, the Head of IhBarcelona, where the researcher was trained in the summer of 2012.

The actual training was delivered and the tasks were supervised by trainers who showed a positive attitude to this study and who agreed to participate voluntarily.

The trainers’ team was selected based on a set of suitable criteria. Among those criteria were the participants’ experience in teaching ESP and their area of expertise. Hence, every trainer was asked to run a set of seminars which were relevant to his or her professional knowledge.

As the following diagram shows, the trainers’ team was composed of five (05) specialist language teachers. Namely, the group comprised four (04) local trainers, two of whom are Professors, one
(01) a Doctor and one (01) an Assistant Professor. All of these individuals have very long teaching experience and are regarded as highly experienced ESP practitioners. Amongst the foreigners was one (01) professor who is acknowledged for his long and solid experience in teaching and running ESP courses and training sessions worldwide. He was also invited and agreed to run a set of seminars using video-conferences methods, and was one of the project evaluators, as well. A subject specialist, who is a professor of physics, also took part in the project as a content trainer. His task was to provide trainees with a basic knowledge in physics and help the researcher in the design of the pre- and post research tests.

Diagram 3.4.: Trainers Profile

To conclude, the following table is an attempt to summarise the sample involved in this study:
The sample | Number
---|---
Trainees | Eight (08)
Trainers | Six (06)
Project Evaluators | Three (03) + One (01) who is also a trainer
Learners | Eighty (80)
Total | Ninety Seven (97)

| Table 3.4: Sample Involved in the Study |

As table 3.4 shows, ninety seven participants took part in the actual work. They were subdivided into four groups, notably eight trainees, six trainers, three project evaluators, in addition to, one who was already a trainer, and eighty learners who provided their feedback on the teaching performance of their instructors. The role of the researcher in this case was to mediate between trainers and trainees and to organise the ongoing process of the training.

3.5. THE ACTION RESEARCH PROJECT

This section is considered to be the core of this chapter as the different phases the work has undergone are clearly detailed below:

3.5.1. Pre-Training Phase

As a first step, the researcher tried to develop a project manual named *The Physics English Teachers’ Course* which contained the following sections:

- Introduction, including the main motives behind the current project;
- course aims and objectives;
- course materials;
- course syllabus;
3.5.1.1. The Physics English Teachers’ Course Overview

It is hoped that our newly appointed teachers will benefit from the training sessions. The current guidebook is a modest contribution towards providing an overview of the main components which will be tackled in this course.

3.5.1.2. Course Aims and Objectives

By the end of the training sessions, it is intended that participants will be able to:

- make a clear distinction between General English and EST;
- discuss and reflect critically upon the approaches and techniques for teaching ‘EST’;
- acquire a basic knowledge of physics as taught in the institution’s program;
- analyse different types of scientific discourse;
- learn how to conduct different types of needs analysis;
- learn how to source materials from the internet;
- learn how to benefit from the use of ICTs in classrooms;
- examine different approaches to course, syllabus and materials design;
- evaluate and review the published materials in the field of ‘EST’;
- design their own syllabus, course, and materials;
- solve problems in EST contexts;
- test, evaluate and assess learners’ errors and achievements;
- provide a final feedback;
3.5.1.3. Course Materials

Participants will use following materials for the sake of completing the course:

- Regular handouts;
- pdf, PPT files;
- textbooks;
- videos;
- tasks completed as homework.

3.5.1.4. Course Syllabus

The current course is divided mainly into four main sections: basic physics and science awareness, professional skills, methodology, and materials. Twenty-eight modules of two hours for each section are included see appendix A. A trainer-team composed of local trainers and the international contributor are expected to run the course. The course takes the form of seminars and workshops where trainees are encouraged to evaluate, reflect and discuss the content provided for them.

After outlining most of a general framework for the current project while clarifying its main components, aims and objectives, the researcher progressed to the next step of offering a number of more expanded instructions to trainers. The aim was to further explain the nature of the programme: its type, structure, location, duration, etc.

The researcher aimed to provide trainers with a set of worthwhile instructions not only to guide them but also to help them form an adequate overview of the structure of the programme itself. For further information, see appendix B.
In the pre-training phase, a number of instruments were used including: the pre-training test, a pre-training interview, and a project evaluation sheet to prepare the ground for the research work. Related to this material, an introductory seminar was presented by the project organiser.

The seminar included the following objectives:

a) to explain the main points the study revolved around;

b) the chief outcomes intended to be achieved by the end of the sessions;

c) a discussion of the main components of the programme. The tentative program components included i) A statement of the main project objectives; ii) the way the training was supposed to be delivered, and iii) the tasks the trainees were expected to fulfil.

At the end of the first session, the trainees were given the opportunity to review the programme components based on their previous preparation in ESP, as well as on their actual needs and future expectations. An evaluation template to fill in was given to each participant.

After receiving the reviewers’ feedback in a form of evaluation templates as well as the trainees’ direct responses, the researcher proceeded to adjust and modify the content of the training programme further, prior to launching the official start of the project. In what follows, the summary of the pilot phase of the research is presented:

1. The interview questions were answered;

2. Test design was finalized and preliminary tasks completed;

3. Participants’ needs were determined;
4. Trainees received a detailed programme including the schedule of the sessions.

5. Participants were also invited to do extensive reading on the topic, not only from the selected pre-reading materials (see appendix J) but also from any kind of documents they judge to be relevant to their next seminars.

In the next section, the actions taken during the training phase will be outlined.

3.5.1. The Training Phase

The actual teaching procedures behind the action research process were motivated by the idea of enhancing ESP teachers’ professional qualifications through the implementation of an in-service teacher training programme. It was therefore worthwhile to consider the impact of those organised seminars and workshops on the teaching performances and the delivery of everyday teaching tasks by the trainees.

To assist with this review process, a set of seminars and workshops were organised regularly every Thursday from nine to twelve o’clock. The time was chosen because the trainees had other teaching duties to handle during the week but happened to be collectively free on Thursday the mornings. The training sessions were done during the academic year 2013-2014. The researcher is grateful for having received official support in the form of a room with all its equipment including data-show facilities, and a desk top computer especially reserved for the project.

During the training phase, trainees received the training feedback sheet which they were asked to fill in whenever they finished their seminars. It was hoped that the immediate feedback opportunity
would encourage trainees report small details which might otherwise be forgotten, but which could be of great value for the researcher. Trainees were also asked to review a set of published materials for the area of English for Science and Technology as a part of their tasks.

3.5.2. Post-Training Phase

At this final stage, participants were invited to fulfil a set of tasks including primarily the design of a syllabus relevant to their students’ specialism, and the selection of a theme to be the core of the course they were required to develop. Those trainee syllabuses, in addition to the course itself, were reviewed later by one of the project reviewers. Trainees were also asked to return the training feedback questionnaire on which they had provided their feedback about the training sessions. Contingent upon the reliability of questionnaire responses, their satisfaction or disappointment could more or less be measured. To cross check this latter, the researcher had recourse to the use of a post-training interview. It was relevant to evaluating trainee questionnaire responses that towards the end of the academic year, feedback questionnaires were also administered to the actual language students in the study.

3.6. INSTRUMENTATION

For the sake of illuminating, corroborating, and later on claiming validity for the research findings, the researcher opted for the use of a number of instruments and methods under the label of a mixed-method approach. The mixed-method approach implies that usually both quantitative and qualitative data have been introduced and dealt with at the levels of both data collection and analysis. To meet this end, careful selection of the research instruments is needed to make possible a triangulation of data sources, instruments, and methods. Thus Denzin (1978) states that: “The term triangulation refers to the
generation of multiple perspectives on a phenomenon by using a variety of data sources, investigators, theories, or research methods with the purpose of corroborating an overall interpretation”. (Quoted in Dörnyei 2007: 165)

In the next section, the instruments which seemed to be the most appropriate for the project as it evolved are presented and discussed below.

3.6.1. Interview

Interviews are believed to be one of the most important tools for collecting data from individuals. The interview mode partly simulates a conversation and may be used to either understand a situation, or a topic that the researcher is interested in. Gillham (2000:1) defines an interview as: “a conversation usually between two people. But it is a conversation where one person - the interviewer - is seeking responses for a particular purpose from the other persons: the interviewee”.

Interviewing, as noted by the majority of researchers (Nunan, 1992; Gilham 2001; Dorney, 2007), is not an easy task. That is, the interview format involves complex choices. Different types of interview are available with each type varying in terms of characteristics and levels of formality. According to Nunan (1992: 149): “Interviews can be characterised in terms of their degree of formality, and most can be placed on a continuum ranging from unstructured through semi-structured to structured”.

Lincoln et al (1985: 269) goes even further when they link the type of the interview one may use to the researcher’s knowledge about the subject he or she needs to have insight about:
the structured interview is useful when researchers are aware of what they do not know and therefore are in a position to frame questions that will supply the knowledge required, whereas the unstructured interview is useful when researchers are not aware of what they do not know, and therefore, rely on the respondents to tell them!

Other researchers including principally Hitchcock and Hughes (1995: 153) relate the different types of interviews to a number of elements which could be summarized in the following way:

- “The nature of the questions to be asked;
- the degree of control over the interview exercised by the interviewer;
- the numbers of people involved;
- the overall position of the interview in the research design itself.”

Keeping the last fact in mind, the researcher felt the need to present an outlook on the different types of interviews while conducting research work. This would help her select the appropriate type of interview at each stage of the study. The following table summarizes the main advantages and drawbacks of the three common types of interviews, notably structured, semi-structured and unstructured interviews:
<table>
<thead>
<tr>
<th>Type</th>
<th>Advantages</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured</td>
<td>➢ Misunderstanding can be, instantly, resolved during the interview. (Wallace, 1998)</td>
<td>For Wallace (1998: 146)</td>
</tr>
<tr>
<td></td>
<td>For Cargan (2007: 108) structured interviews is useful because it is ➢ Easy to administer ➢ Simple to analyze ➢ Inexpensive</td>
<td>➢ It takes much longer to implement a questionnaire orally than in writing ➢ Less possibility of anonymity (unless the interviewer and interviewee are complete strangers) For Cargan (2007: 108) ➢ Simplicity leads to many disadvantages Fixed alternative answers may force respondents to indicate opinions that they really do not hold, discrepancies in interpretation may not readily evident with fixed replies and no information will be available as to the reasons for the answers given.</td>
</tr>
<tr>
<td>Semi-structured</td>
<td>For Nunan (1992) and Wallace (1998) ➢ A great amount of flexibility is given to the interviewer ➢ A certain power and control is given to the interviewee ➢ It provides more privileged access to more in-depth information</td>
<td>For Mitchell and Jolley (2013) ➢ It is Time consuming which can be mainly related to freedom and flexibility, the two most important characteristics of the semi-structured interview; ➢ The follow-up questions may cause problems for the researcher while analyzing and interpreting data as those questions may not be</td>
</tr>
</tbody>
</table>
the same for all the interviewees.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>➢ A maximum flexibility may motivate respondents to provide more in-depth and detailed information than under any other formal circumstance.</td>
<td>➢ Novices in the area of research may not succeed in this type of research as they lack experience.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➢ It takes a very long time and may involve a lot of content. Much freedom may have a negative impact as the interviewee may provide details which are not useful and make data analysis more difficult for the researcher.</td>
</tr>
</tbody>
</table>

**Table 3.8:** An Overview of the main Advantages and Drawbacks of the Three Types of Interviews

Despite the differences cited above, a shared procedure is followed in much existing research. This encompasses four undemanding steps:

➢ Putting the interviewee at ease;
➢ Explaining the nature of the research;
➢ Outlining how data will be used;
➢ Gaining permission for the interview to be taped or for you (the interviewer) to take notes.

Norton (2009:101)
The preceding points suggest that interviews cannot be conducted appropriately unless the researcher is fully prepared to provide thorough answers to four basic questions cited by Hitchcock and Hughes (1995):

- **Why interview?**
  As far as this current study was concerned, the researcher was seeking to get more in-depth data.

- **Where do I interview?**
  The researcher decided to conduct the interview at the Department of Physics where trainees were recruited.

- **Whom do I interview?**
  ESP teachers who agreed to take part in this study and participated before the training sessions and after they ended.

- **When do I interview?**
  Interviews were scheduled in two main phases: in the pre-training and post-training phases.

The researcher decided to conduct a semi-structured interview in both phases, i.e., in the pre and the post-training phases (see Appendix D and E) because *degrees of freedom* added to a certain amount of *control* (Wallace, 1998) elicited the best cooperation, and the kind of flexibility the researcher was seeking while attempting to get as much in-depth information as possible.

Interviews, firstly before the start of the training sessions and secondly after the end of the training seminars, were further clarified
by considering motives and objectives. For the pre-training interview, the investigator aimed to:

✓ outline a careful project profile for the trainees;
✓ be well aware of real trainee needs;
✓ check what areas of interest could be included in the training programme;
✓ discuss with the trainees the components which could be either added or adjusted in the programme.

In the post-training interview, the researcher endeavored to explore more in-depth ideas of the following kind:

✓ training sessions effectiveness; the main weaknesses and strengths;
✓ trainees’ degree of satisfaction;
✓ trainees’ main expectations. In other words, what components could be changed in future training sessions?

For both the earlier and later interviews, the researcher decided to divide the questions to a number of sections. Each section encompassed a set of questions of mixed types, i.e., open-ended and close-ended. As examples of open-ended questions, the following questions are drawn from both pre and post-training interviews:

❖ According to you, who should be responsible for the organization of ESP practical training courses to better overcome the absence of a specialized ESP teaching methodology?
❖ How do you describe the changes, if any, in your teaching practices as related to your participation in ESP in-service teacher training programme?
As for the close-ended questions, the items below can serve as illustrations:

- Is there any gap between the original literary stream from your background training and the scientific stream where you are supposed to explore a new kind of experience?
- Do you think that the ESPTT programme has met your real needs?

A semi-structured interview during the two research phases assisted the project organiser in the following ways:

- It helped the organiser to keep in touch with the teachers and stay updated about their day-to-day situations;
- It identified the central issues for the language teachers before, during and after the training;
- It adjusted the training sessions depending on the teachers’ needs, want and deficiencies.

Interview research tools: Audio-recording and note-taking were found to be indispensable tools in the field while conducting interviews. Of course, later transcription and analysis were more computer focused.

### 3.6.2. Test

One of the most common tools used to gather data about a target situation and the informants’ level of expertise (in this case, in ESP) is some form of test. Testing has been widely accepted as an effective instrument to evaluate and assess the ability, knowledge or simply performance of respondents. (Seliger and Shohamy, 1989; Bachman, 1990; Nagaraj, 1996). According to Nagaraj (1996: 204) tests are not limited to only academic contexts, and hence academic
courses, but they are also often used in any situation where “the performance of people or things needs to be measured and discriminated”.

Bachman (1990) stresses three key concepts related to testing: *diagnosis, assessment* and *assistance*. Diagnosing the situation is the first step in the process of testing. In this regard, to outline the informants’ main *weaknesses* and *strengths* is vital for any research work. Assessment could be seen as a second step in the testing process. The wish to check the improvement of your informants leads to a third stage that aims to assist participants to perform better. That is, the third stage of the cycle helps those who scored weaker grades by highlighting their difficulties. In the case of ESP, if language performance can be improved, students will also experience a better grasp of the content of their specialist courses.

Before administering any test, the researcher should be prepared to offer answers to the following questions as outlined by Raman (2004: 183):

- What is the purpose in testing the students?
- What is the test expected to achieve?
- What is being taught?

Being fully aware of the purpose of testing, the final outcomes hoped for, as well as the actions and content which should be taught, would help any investigator to decide on the appropriate type, form and the content of a test. A review of the literature (Richards, 1990; Nagaraj, 1996; Harmer, 2001; Roman, 2004) has shown that four major types of tests are available. The following diagram illustrates this idea:
As diagram 3.5 outlines, available tests take the following forms: placement, diagnostic, achievement and proficiency tests.

The placement test, as its name indicates, attempts to place informants at their accurate level. It is, generally, used at the beginning of the academic year when students are supposed to be grouped according to their level. Diagnostic tests, on the other hand, aim to diagnose the situation by outlining which hindrances students face. The third category, however, stresses the current achievement of students whether they have progressed in a given area or not. The last kind of test, proficiency testing, is delivered with the aim of measuring a learners’ level of language proficiency, and that may be global proficiency, as distinct from measuring purely what was taught in a course.
Harmer (2001: 321) argues that the difference between a diagnostic and a placement test can be determined in the following way:

while placement tests are designed to show how good a student’s English is in relation to a previously agreed system of levels, diagnostic tests can be used to expose learners’ difficulties, gaps in their knowledge, and skill deficiencies during a course. Thus, when we know what the problems are, we can do something about them.

Testing was used while evaluating and later on assessing the teachers’ current competencies before they started the preparation process. This was done in an effort to provide training which aimed to improve those competencies for better teaching/learning professionalization. During the first phase, which was named the pre-training phase, a diagnostic test was administered. After the end of the training sessions, the investigator opted for another test to analyse outcomes. That is, the post training test was a useful tool to check the teachers’ improvements. In research methodology, such a post training test is called an achievement test. An achievement test attempts to measure the specialised knowledge growth of candidates (trainees in the present case) based on “the syllabus they have been following”. (Harmer, 2001: 321)

Harmer (2001) goes further to distinguish between the types of items used in such a test. According to him, two main question types can be identified, and hence used: direct and indirect questions. The difference according to Harmer (2001: 322) is “ Whereas direct test items try to be as much like real-life language use as possible, indirect
items try to find out about student’s language knowledge through more controlled items such as multiple choice questions or grammar transformation items”.

The tests implemented in this study were adapted from the one developed by Ministry of Education in the Philippines. In the pre-training test, i.e., the diagnostic one, indirect items in a form of multiple choice questions were used for eight questions. The following item is an example:

- All of the following are physical sciences except
  - a. physics
  - b. chemistry
  - c. botany
  - d. astronomy

For the two remaining questions, informants were asked either to arrange or classify statements as the following examples indicate:

- Below are the processes of the scientific method. Arrange these steps chronologically.
  
  - a. make predictions
  - b. formulate an hypothesis
  - c. identify and state the problem
  - d. accept the hypothesis or theory conditionally
  - e. gather observations, facts, and data
  - f. test predictions by experiments
  - g. pass all tests / fail all tests completely or partially
Classify whether each item represents technology or pure science.

a. improvised Boyle’s Law apparatus
b. improved procedure on determining the relative density of solids
c. the density of water is 1 g/cc
d. devices for measuring length
e. mass is the quantity of matter

In the post-training test, i.e., the achievement test, ten questions were asked. Eight of them were multiple choice questions. In the two remaining questions trainees were asked to arrange statements and to list five scientific attitudes scientists (hopefully) possess. This could be clearly seen in the next models:

- Who formulated the laws of motion?
  a. Sir Isaac Newton
  b. Robert Boyle
  c. Albert Einstein
  d. Benjamin Franklin

- Arrange the different processes of the scientific method chronologically
  a. Formulate an hypothesis.
  b. Make predictions.
  c. Accept the hypothesis or theory conditionally.
  d. Identify and state the problem.
  e. Gather observations, facts, and data.
  f. Pass all tests / fails completely or partially.
  g. Test predictions by experiments.
Suggest 5 scientific attitudes that scientists are expected to possess:

1. 
2. 
3. 
4. 
5. 

Clearly the two tests are similar to each other in terms of form and structure. The use of the indirect items in multiple choice questions, classifying and arranging statements is important simply because they are “often quicker to design, and crucially, easier to mark and produce greater scorer reliability.” (Harmer, 2001: 322)

3.6.3. Questionnaire

The two research instruments discussed to date, interviews and tests, had certain limitations. For the sake of gathering reliable data for this research, while ensuring at the same time triangulation of data sources, the researcher decided to use a third tool which was the questionnaire to collect more in-depth information. The practice of employing questionnaires is often regarded as a vital tool to elicit available information from a precise situation, and for a more or less definite purpose. According to Nunan (1992: 231): “A questionnaire is an instrument for the collection of data, usually in written form consisting of open and / or closed questions and other probes requiring a response from subjects”.

The questionnaire administered to students was mainly adapted from the one developed by Morris (1994) at the university of Hong Kong, Department of English, which is cited in the work of Richard (2001). The questionnaire contained questions of both types, i.e.,
close-ended and open-ended, which were chosen carefully and later administered to the actual language learners who acted as a key parameter in the teaching/learning process.

The use of both open and closed questions is explained by Ruane (2005: 131) as follows: “With closed-ended questions, the researcher provides a set of pre-determined (fixed) response alternatives for the respondent to use when answering the question. With open-ended questions, respondents are free to devise their own unique answers to the questions posed”.

The learners’ questionnaire was divided into two main sections. In the first section eight questions were asked, while five questions were asked in the second section. In addition to the open and closed questions, the questionnaire included a facility for rating questions based on a Likert Scale which has been defined as “a summated rating scale used for measuring attitudes.” (Jupp, 2006: 161)

According to the literature (Likert, 1932; Desselle, 2006; Jupp, 2006; Ary et al., 2014) Renis Likert was the developer of this method. This technique for measuring attitudes was first employed in 1932. This scale often includes five values starting from strongly agree, agree, undecided, disagree and strongly disagree, and vice versa.

One example of the Likert scale used in the actual work is:

- In general, I have found that the teacher:
  - Has communicated class materials clearly

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following; however, is an example of an open question used in the questionnaire:

- Which aspects of the teaching were most useful?

In this regard, the researcher benefited from learners’ answers while using both types of questions. Moreover, the participants were informed about the pedagogical purposes of the study in order to be aware of the nature of the investigation, and this helped them to contribute relevant responses. Having a deep insight about the situation from our learners’ perspective was of great importance for the researcher.

The questionnaire was administered with the three following rationales in mind:

- To add information that would otherwise be missing;
- To cross-check the results of other instruments;
- To establish the validity of the findings.

Designing the questionnaire involved not only considering the main objectives and the rationales but also taking care to avoid pitfalls that are well-known in questionnaire construction. For example, the researcher tried to pay careful attention to every single question in order to avoid the kind of leading questions which may influence the informants’ points of view. Nunan (1992:143) points out that: “It is particularly important that the researchers not reveal their own attitudes through leading questions.”

Complex and confusing questions were avoided too in order to avoid discouraging respondents. Another factor which can affect the reliability of the data that have been gathered is respondents who may lack motivation either to complete or give back the questionnaire.
In addition to the learners’ questionnaire, the researcher administered another type of questionnaire programme evaluators and trainees in the form of a checklist to review the main components of the programme as a vital part of the pre-training phase.

In the ESP TTP, the researcher focused on twelve (12) items where she asked the reviewers to rate each item by ticking the box which matched their evaluation. A rating scale was used which ranged from poor, average, good to excellent. Two other sections were left empty and participants were invited to add any comments or suggestions for the improvement of the project components. To reiterate, the aim of this form was to help the investigator determine the final design and components of the training based on the experience of the programme reviewers and the trainees previous preparation in ESP, and on their actual needs as well as future expectations. The following are examples of the items used in the form. For more details see appendix D:

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Avg.</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The overview of the programme is clear, specific and relevant.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The objectives of the programme are well established.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The components of the programme are relevant to teachers needs as well as to the work.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.7. A Sample of Items Used in the ESPTTP Evaluation Form
3.7. DATA ANALYSIS METHODS

A mixed-method approach was chosen for this study both for data collection and data analysis. This section deals with data analysis. Dörnyei (2007:268) suggests that: “… the analysis of data should proceed independently for the QUAN and QUAL phases and mixing should occur only at the final interpretation stage”. This has been done to illuminate and corroborate findings which emerged from both approaches.

The investigator did not anticipate a lot of difficulties in analysing the quantitative data since “Well defined procedures, guided by universally accepted canons are available; to address research issues and the computer will do most of the detailed mathematical work for us, producing relatively mathematical straightforward results.” (Dörnyei, 2007: 197)

Of course, the caveat with quantitative data is that its analysis presents an appearance of precision. That apparent precision and certainty is always only as reliable as the actual numbers which were put into the calculation.

The availability of a wide variety of software packages may facilitate the task of analysing data. Therefore choosing the appropriate statistical program to fulfill this task was considered as a first step in the process of data analysis. The next step was to focus on data preparation. This implied a need to undertake a series of staged procedures to be ready for the analysis. Dörnyei best summarizes these different steps (2007: 199) while explaining that:
The first principle of preparing our data for analysis is that quantitative data needs to be stored in a computer file. This requires the system coding of data, creating a data file, and then inputting the coded data. Once we have our data online, we need to screen, clean and possibly manipulate it, before it is ready for analysis.

Analyzing qualitative data may differ from the analytical processing of quantitative data in terms of steps to be followed, due to the nature of information which has been gathered from qualitative data sources, i.e., from the pre and the post-training semi-structured interview, the trainees feedback form and the project evaluation form. Dörnyei (2007) suggests that an analytical process for qualitative data should go through four (04) phases, starting from transcribing the data, moving to pre-coding and coding, then interpreting the data and ending with drawing conclusions.

The above-mentioned data analysis methods constituted a great help for the investigator in summarizing, comparing, and later on discussing the findings.

3.8. CONCLUSION

This chapter has summarized both the theory and practice by which the research proceeded. The researcher has sought to elucidate a number of elements including a detailed description of the programme including its main objectives, components, duration, and structure as well as the final outcomes she planned to reach by the end of the training sessions. The project could not be fully understood without providing this kind of explicit statement of the methodology adopted, the instruments used and the way data were gathered and analysed.
CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION
CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION

4.1. INTRODUCTION

4.2. DATA ANALYSIS AND INTERPRETATION

4.2.1. The Pre-Training Phase Results
   4.2.1.1. Pre-Training Interview Results
   4.2.1.2. ESPTTP Evaluation Feedback Form Results
   4.2.1.3. Pre-Training Test Results

4.2.2. The Training Phase Results

4.2.3. The Post-Training Phase Results
   4.2.3.1. The Post-Training Interview Results
   4.2.3.2. Learners’ Questionnaire Results
   4.2.3.3. Post-Training Test Results

4.3. SUMMARY OF THE MAIN FINDINGS

4.4. CONCLUSION
4.1. INTRODUCTION

This work was implemented with a major aim which is to check whether providing teachers with an in-service training will help them better cope with the requirements of their target situation and hence, enhance their professional qualifications as ESP practitioners or not. The rationale of this fourth episode is to provide answers to the already mentioned research questions and hypothesis. This could be done through unfolding the analysis and interpretations of the data gathered during the three phases of this action research.

4.2. DATA ANALYSIS AND INTERPRETATION

The current work was divided into three main phases: before, during and after the training sessions. A combination then of qualitative and quantitative data approaches seemed to be appropriate for data collection and analysis. Reporting the analysis and interpretation of data at these three levels following the same order of the previous chapter is important for the actual study.

4.2.1. The Pre-training Phase Results

During this first phase, the researcher opted for the use of a number of instruments: a pre-training interview, a pre-training test and project evaluation sheet. In the section below the results gained from each instrument will be outlined carefully.

4.2.1.1. Pre-Training Interview Results

As a first step in this diagnostic phase, a semi-structured interview was carried out. The main aim was to draw a clear profile for
the trainees and to discuss the set of components which can be added or adjusted in the programme. The interview was divided into four rubrics. Rubric one entitled: Trainees profile and preparation consisted of ten questions. Rubric two: ESP teaching/ learning situation contained eight questions. The third rubric: Trainees attitudes and expectations in the physics department comprised four items. In the last rubric: Trainees future prospects/ ESP teaching suggested remedies seven items were asked. In sum, twenty-eight items were verified in this first interview.

The interview was conducted with eight informants. To guarantee then reliability of data and anonymity, the participants were given the following signs respectively to refer to them R1, R2, R3, R4, R5, R6, R7, and R8. The R stands for Respondent then 1, 2, 3, 4, 5, 6, 7, 8 are numbers used to refer to them. The analysis as well as the interpretation of each question is presented below:

**Rubric One: Trainees Profile and Preparation**

This first set of questions aimed to draw a careful profile of our trainees including their experiences, their preparation, and whether they have taught in EST contexts or not. In the first question, respondents were invited to talk about their background as ESP and language teacher.

**Question One: Can you tell us about yourself and your background as a language teacher first, then as an ESP practitioner?**

The answers of the first question were subdivided into five elements: major, category, department, experience and the teaching fields. The following diagram illustrates this idea:
As the answers revealed, the eight informants hold a magister in ESP, seven of them were PhD candidates and only one respondent was not yet enrolled to further her PhD studies. For their teaching categories, four interviewees were full time teachers which represents (50%) of the entire population and the four others were part-time teachers (50%). Among the full-time teachers, only one who was recruited in ESP context, the three other respondents were working in General English contexts, i.e., in English departments in different universities. As far as the teaching experience is concerned, candidates’ experiences varied from two to eight years of teaching experience as ESP practitioners. As language teachers, interviewees taught either in middle or secondary school level from a period of one year to ten years. Two informants, however, did not undergo such experience.
The sharing feature was that all the informants being a part-time or full-time teachers worked in different departments as ESP instructors. Among those departments, we may list the following:

- Economics and Commercial Sciences department;
- Political Science and Law department;
- Science and Techniques in the preparatory school of ST;
- Mathematics and Computing Sciences department;
- IT and Communication department;
- Physics department;
- Preparatory school of Economics and Commercial Sciences;
- Psychology department;
- French Language Section.

One interviewee worked also in private institution and also in the British Council.

**Question Two: What is your area of expertise?**

The answers of respondents included different areas of expertise. The common area was ESP as they were all prepared during their Magister in ESP. The difference lied in the sub-areas of ESP based on their research themes: Business English, English for Aviation, EAP, Legal English, Needs Analysis, English for Computing Sciences and EST.
Question Three: Have you gained any further qualification in ESP Teaching since being accomplished your Magister? If yes, please state which?

When the participants were asked whether they have gained further qualifications or not the entire sample population (100%) commented that they did not achieve additional credentials after they accomplished their Magister in ESP.

Question Four: Have you undergone any specialized training in ESP before?

The answers revealed that five teachers did not receive specialized training before being appointed in such positions. One candidate R2 considered being enrolled in PhD besides, reading and being in contact with experts in the field in foreign countries can be considered as a specialized training. Two respondents namely R1 and R7 stated that they received a theoretical training during their initial preparation as ESP Magister holders in areas such as needs analysis, materials production and so forth. R7 went further and she stated: “Apart from Magister I have not undergone any other training in ESP whether general or specialized”.

Question Five: Do you need any further training in this area of research?

All the respondents agreed on the necessity of having further training in ESP to consolidate the set of competences they acquired earlier.
Question Six: Does the English department offer any in-service training or professional development courses on this issue?

Talking about the issue of offering any in-service training or professional development courses in the English department, the eight informants agreed on the fact that this institution did not offer any training, seminars or workshops aiming to enhance EST teaching quality and teachers’ qualifications.

Question Seven: Do you know of any other providers, institutions mainly offering courses in this field?

As far as this question is concerned, the answers show a discrepancy: two informants stated that Algerian institutions do not offer courses in ESP. One interviewee mentioned “few internet blogs and websites”. Two others tackled the ESP Centers and they questioned their existence today. R2 suggested LSA “Language Solution Algiers” a private institution which offers English training courses in different fields for students, workers and most importantly for teachers. R5 and R8 referred to the British Council as an institute which provides training courses. Based, however, on the experience of R5 as a former teacher in the British Council she stated that this organization “offers a set of seminars to provide further assistance for General English teachers …. But there is no real training programme which is designed to ESP instructors”.

Question Eight: What do you think of your preparation as a language teacher?

The majority of those who responded to this item felt that are not enough prepared to be fully involved as language teachers and hence, they cannot claim to be 100% effective language instructors.
Expressions like: “still needs a lot”, “I am still PhD student I am still not prepared to manage well my classes”, “I am neither good nor bad teacher… I am simply still learning” where often used by respondents. They have also called for further consolidation of a set of areas in ESP teaching as they are supposed to be ESP practitioners. In this vein, Respondent one ‘R1’ stated that ‘we are prepared to teach General English ... We still lack the specialized knowledge.”

**Question Nine:** Apart from the English department, have you taught before at the physics department or at any other EST context?

The main aim behind this question was to depict those practitioners with an EST teaching experience. Over half of those interviewed reported that they have not worked in EST context including the physics department. Others, on the other hand, mentioned IT and communication, computing sciences department and the preparatory school of Science and Technology as forms of EST settings. Interestingly, only one interviewee worked in the physics department as ESP teacher.

**Question Ten:** Do you think that your theoretical training had prepared you for that situation, i.e., teaching ESP in real context?

70% of the informants agreed on the fact that they have been prepared theoretically to teach ESP but whenever they are appointed in a real context things change. In this vein, R7 stated that “during our initial preparation we have gained theory what we need, in fact, to put that theory into practise.” Moreover, R1 argued that “our ability to handle our ESP classes depends on the field we are teaching …. Teaching ESS is not like EST”. It was also suggested that they need to
search for fresh ideas, flexible content, and experts’ advice. Respondents also stressed on the fact they lack practise and the content knowledge which are two important parameters in the teaching/learning process. In this regard, one respondent ‘R2’ said: “we still need further training to be well prepared because we are not familiar with specific jargon.”

**Rubric Two: ESP Teaching/ Learning Situation**

This section of the interview required informants to provide deep-insights about ESP teaching/learning situation. Themes like teachers’ difficulties, roles of ESP teacher, classroom management, evaluation and assessment, ESP practitioners’ needs, etc were discussed below

**Question One: As a language teacher could you list please the set of difficulties you encounter in ESP context?**

A number of issues were identified by the interviewees: the lion-share was devoted to the specific knowledge. Respondents often face difficulties because they lack the appropriate specialized knowledge. R1 listed the following hindrances:

- Lack of practical training;
- lack of specialized knowledge;
- lack of learners’ motivation;
- lack of pedagogical materials then, ESP teacher must rely on his own adapted materials.

Talking about this issue, R3 added: “as an ESP teacher we may lack: experience, confidence, skill and comprehension in the class with the learners.”
R6 reported that the problems faced by ESP teachers can be further divided into two main categories: Internal and external.

Problems related to administration I may call them external problems and others related to the language teacher are the internal difficulties. For the former, our course is often scheduled as a last course of the day and students often escape. Taking in this case the Computing Science department, there is a huge number of students and to monitor them is often impossible. In almost all our departments, there is no placement test, then, the logical result is to have those heterogeneous groups which add extra problems to the language teachers. The lack of motivation is the shared feature.

This view was echoed by two other informants namely R7 and R8 who stressed on nature of the job which is “a part-time position with a low income and other duties to handle”.

Question Two: How did you plan to overcome those obstacles?

Respondents were asked to highlight the set of strategies they adopt/adapt to overcome the obstacles cited earlier. In this vein, six broad concepts emerged including:

- Collaboration and cooperation;
- Authenticity;
- Needs Analysis;
- Integration of ICT;
- Rewarding;
- Background knowledge.

Among those strategies, R1 reported that “the use of modified and authentic materials to raise my students’ motivation and awareness….Collaboration with subject specialist to understand the
subject knowledge.” R6 on the other hand, stated that “I use to rely on my own experience. I focus on an area I am familiar with: technical writing.”

R3 identified a whole process to overcome the daily obstacles. She suggested the following steps:

- Identify our learners needs;
- determine their level of English proficiency;
- find out their field knowledge;

[These could be done], to promote their motivation and have self-access and autonomy while using available resources and technology.

**Question Three: How do you describe your role as an ESP teacher?**

Interviewees agreed upon the five prominent roles performed by an ESP teacher: instructor, course designer and material provider, collaborator, researcher and evaluator. R6 went further and added a six element. According to her: “we have learned that the ESP teacher performs five common roles…. Depending on my experience, I will add another role which is the ‘learner’. This latter depends heavily upon the context particularities.”

**Question Four: Describe, briefly, how do you manage your classes?**

Talking about the issue of classroom management interviewees stressed on the necessity of conducting a needs analysis, involving students in real-life tasks and working in groups. They added that the course should undergo the following steps:

- Warm-up phase;
✓ the core of the lecture: using learning strategies and teaching materials;
✓ tasks to be solved: writing essays, discussing topics, playing games in English, etc;
✓ individual and group works.

Question Six: Describe, briefly, how do you evaluate and assess your students’ achievements?

Evaluation and assessment are key-concepts in ESP teaching. Informants associated these latter with the process of needs analysis. According to them, “ongoing needs analysis and formal written tests” (R2) are the essential means to evaluate and assess their learners’ performance.

To fulfill this task, R1 identified three types of tests:
✓ Placement test at the beginning of the year;
✓ proficiency test at the middle of the year to check how well the course is achieved;
✓ evaluation test at the end to assess the learners’ achievements.

Respondent 6 on the other hand stressed on “the absence of a formal entry test.”

At the end, “further tasks are designed based on the marks of the administered tests and learners’ fully involvement in the tasks and assignments….to enhance their level of language proficiency while addressing their weaknesses’, informant 7 maintained.
Question Seven: Is there any specific methodology to follow while teaching ESP?

Over half of the interviewees (50%) stated that there is no precise methodology to follow while teaching ESP. The other half on the other hand, stressed on a set of elements including fundamentally Needs Analysis, materials selection, the criteria of an effective course designer and most importantly, eclecticism to choose the best approach “based on the learners’ needs and context requirements while selecting texts and tasks for ESP teaching.” (R3)

Question Eight: What are your main needs as an ESP teacher? Technical skills? Reflective practice? Specialized knowledge? Other?

By the end of this second rubric, interviewees were asked to highlight their main needs. Throughout the discussion, the informants identified six broad concepts:

- Guidance;
- classroom management;
- specialized knowledge;
- practical training;
- team teaching;
- permanent position in ESP context.

Rubric three: Trainees Attitudes and Expectations at the Physics Department

As the majority of the trainees were supposed to start a new teaching career in a new context, four questions were asked with the following purpose in mind; to unveil participants’ first attitudes and expectations.
Question One: Is there any gap between the literary streams your background and the scientific stream where you are supposed to start a new experience?

Informants agreed on the fact that they come from a field which is far from the one they are supposed to start a new journey in. Statements such as: “they are two distinct fields of research”, “we are not familiar with technical terms”, “there is a gap as I lack the appropriate knowledge” were often repeated. Though, R8 believed in the existing gap but she suggested to “rely on her own experience in the preparatory school of Science and Techniques” to bridge, hopefully, this gap.

Question Two: What do you expect from the experience of being appointed in the physics department as an ESP teacher?

The majority of those interviewed reported that they will face difficulties as they lack specialized knowledge. In this regard, informant 1 asserted that she will “be able to teach only general physics-based topics.” Other interviewees revealed further expectations. “Lot of work, additional duties, and a challenging phase” were the main points respondent 6 talked about.

Question Three: How could you, then, describe your first attitude?

Respondents’ answers ranged from being impressed, excited, motivated, positive attitude, to afraid and having negative one toward the field they will be appointed in. One interviewee said: “I am afraid to be unable to handle my classes”. Other informants, however, revealed positive attitude where R6 pointed out the following: “afraid with a positive attitude to go through this experience”. This view was
echoed by respondent’s answer who maintained: “positive attitude. I will try to enjoy the experience”.

**Question Four: To which extent you think that the lack of specialized knowledge in physics would have a negative impact on your teaching performance?**

Having specialized knowledge in physics is a pre-requisite for interviewees. For R2 “it is something essential to interact with students and to be fully involved as ESP teacher.” Problems would emerge in the case teachers lack this component. In this vein, R1 argued that “teachers will face problems in materials selection, course content and conduct and students questions”. R6, on the other hand, admitted the fact that “it will have a negative impact but I am fully aware that my task is to teach English not physics. Then, I will try to manage everything based on this idea.” Along this, informant 8 suggested learning with students to overcome this obstacle. She stated that “I am ready to learn with my students as we are supposed to share knowledge.”

**Rubric Four: Trainees Future Prospects/ ESP teaching Suggested Remedies**

Throughout the interview, a number of issues were discussed. In this last rubric, trainees’ future prospects were revealed. Qualities of good teacher, strategies to acquire those skills, the main changes which should be incorporated in initial preparation of teachers, and the organization that might be responsible for the training courses, were enlightened below.
Question One: According to you, what makes a good teacher?

Qualities of a good teacher as summarized by interviewees are: open-mindedness, looking for change, being in touch with other fields of research and other researchers, seeking an endless preparation and training. According to R1 a good teacher is the one who is able to “handle well the process of Needs Analysis, choose appropriate syllabus, design courses and provide enjoyable activities”. For her to be a good teacher is “associated with the performance and the achievements of the learners”. To achieve this, R7 stressed on having “an effective preparation and practice”.

Question Two: How can novice develop or acquire these skills and qualities?

To achieve the already cited qualities, a teacher should:

- Endeavor to have a continuous preparation: pre and post-service training;
- function as a real researcher;
- attend training seminars and workshops;
- learn from colleagues, friends and students;
- have the positive attitude;
- gain experience;
- develop an intercultural awareness;
- work in collaboration with subject specialists.


Question Three: What makes professional development effective? And not effective?

Depending on respondents’ answers, a professional development can be either effective or ineffective. Ineffective when “it has nothing to do with learners’ expectations”. In order to be effective, then, it should include ‘practical training’ and ‘reflective teaching’ and it should be also “tailored to respond effectively to their needs”, (R2) stated. Along this, R7 added the term ‘sessions’ to professional development. She argued that to have effective professional development sessions “our supervisors and trainers should focus more on practice and not only on theory because we need practice and reflection upon a set of elements encountered in our teaching contexts”.

Question Four: What are the main changes you would like to be incorporated in your initial preparation at both graduate and postgraduate studies as a language instructor?

In their initial preparation, interviewees stressed on their need to have a practical preparation in a form of intensive training courses and to acquire a basic knowledge in different fields of research including chiefly sciences and techniques. They also asked to teach under supervision where they should be involved in ESP real teaching situations. R6 focused on the idea of team teaching “both language teachers and a number of subject-specialists from different fields of research present together courses at both graduate and post-graduate levels.”
Question Five: According to you, who would be the responsible for the organization of ESP practical training courses to better overcome the absence of a specialized ESP teaching methodology?

When asked this question, 90% of the informants reported that it is the English language department duty to handle the organization process of the ESP training sessions. As an attempt to reduce the number of obstacles faced by language teachers, the faculty of letters and languages and more precisely the department of English language should organize regularly practical training courses for ESP instructors under different forms: seminars, workshops, conferences and so on. A minority of participants (10%) suggested the private institutions as an alternative to the institute of languages.

Question Six: What are the main areas you wish the ESP in-service teacher training programme covers?

As a final connotation, participants suggested a number of areas they wish to be included in their training:

- Basic knowledge in Physics;
- tips to teach specialized terminology;
- classroom management;
- needs Analysis;
- course and syllabus design;
- approaches to ESP teaching;
- testing and evaluation;
- teaching under supervision.
Comments on Teachers’ Pre-Training Interview Main Results

As it has been stated earlier, the pre-training interview aims to draw a careful profile for the trainees and to discuss the set of components that can be added or adjusted in the programme. In this regard, a number of conclusions can be drawn:

Trainees who share the same preparation, i.e., Magister in ESP lack also specialised knowledge and expertise as they face a set of difficulties. Those latter do not allow them to perform adequately their roles which have caused a negative impact on the way they manage their classes. For them evaluation and assessment were not that easy tasks they thought about. Trying in this case, to evaluate and assess a huge number of students in the same way is almost impossible. In this vein, informants have called for incorporating the following elements: guidance, tips for classroom management, specialised knowledge, team teaching in a practical training which aims to enhance their professional qualifications and to promote the ESP teaching/learning situation.

This combination of findings provides some support for the conceptual premise that teachers with no specialised in-service training and who lack a specific knowledge often face difficulties once they are involved in real life teaching situations. These results further maintain the idea of Hutchinson and Waters (1987: 160) who believe in the fact that teachers do not only need: “To cope with the uncertain values of the strange land of ESP, [they] may also have to struggle to master language and subject matter beyond the bounds of their previous experience”.
However, it should be stressed on the fact that our informants are not those real “strangers in the strange land” as Hutchison and Waters (1987) used to call them. During their initial preparation, they have gained a general training in English for Specific Purposes which facilitates, to a certain extent, their tasks as ESP instructors. Once language instructors acquire the needed skills, their role will be considered in helping students to communicate effectively in the target language while using their knowledge related to that field of specialism. To achieve this purpose, a certain level of knowledge of the learners’ area of study is required.

As it is almost known, the gap between different fields of specialism namely physics, chemistry, mathematics, IT, etc, and the literary field still exists and it is almost impossible for an initial training to incorporate all those areas. It should be advisable then during the in-service training that acquiring specialised knowledge and hence, fill in the existing gap, would be limited to a specific area of research trainees are mainly concerned with. This view has been supported by Northcott (1997: 189) who suggested that: “ESP teacher training should be essentially located within the context of the field of operations and that the academic study of ESP should be put to work to equip the teacher within this context”.

In this case, any ESP training programme developer should bear in mind the following fact: “ESP teachers are not specialists in the field, but in teaching English, their subject is English for the profession but not the profession in English” Bojovic (2007:493). Then, the primary concern of those teachers is to teach language and not the specialty.
4.2.1.2. ESPTTP Evaluation Feedback Form Results

In the ESP TTPEF, the focus was placed upon twelve (12) items. Reviewers were asked to rate each item by ticking the box which matched their evaluation. A four points rating scale was used which ranged from poor, average, good to excellent. One section was left empty and participants were invited to add any comments or suggestions for the improvement of the project components.

The administration of this form to the twelve participants was to help us determine the final design and components of the training based on the experience of the four programme reviewers and the eight trainees previous preparation in ESP; on their actual needs as well as future expectations. As a final connotation, the use of this questionnaire was done to cross-check the answers of the pre-training interview.

Item One: The overview of the programme is clear, specific and relevant.

Programme reviewers and trainees were asked to provide their feedback about the project overview. Results indicated that over half of the participants found it relevant, clear and specific. The pie-chart below illustrates this view.
Item Two: The objectives of the programme are well established.

In the second item, participants were asked to rate the objectives of the programme, whether they were clear enough or not. Their answers revealed that (65%) of the sample ticked number two which means average. On the other hand, (35%) of the reviewers expressed their satisfaction with the objectives which ranged from good to excellent. Further details are presented below:
Item Three: The components of the programme are relevant to teachers needs and then to the work.

The overall response to this question was positive, (83%) of the participants stressed on the fact that the components of the programme are relevant to teachers needs and then to the work.
Item Four: The objectives of each module are clear and relevant.

To outline the set of objectives relevant to each module is believed to be important to any project being implemented or aimed to be implemented. In this regard, (67%) of the respondents assumed that the objectives were average which means they still need modification. The rest of the sample (33%) felt that they were enough explained and good.

Pie-Chart 4.4. Objectives of Each Module

Item Five: The tasks of each module are relevant.

When the participants were asked about the tasks devoted to each module, the majority commented that they were relevant. This showed an overall satisfaction with the tasks, trainees were supposed to fulfil during and at the end of the training sessions.
Item Six: The organization of programme sessions consisting of seminars presented by trainers and workshop monitored by trainees’ participation and feedback is relevant to the overall aim of the work.

To be aware of the organisation of the training sessions which any individual is supposed to take part in is an essential element. Hence, participants were asked to review the framework of the project which consisted of seminars presented by trainers and workshop monitored by trainees’ participation. Over 12 who reviewed this programme, 10 participants which represent (83%) revealed their satisfaction with the project organization. Further details are displayed in the next pie-chart:
Item Seven: The programme structure; basic knowledge in Physics and sciences, Professional skills, Methodology. Materials satisfies the academic standards.

The programme was divided into three main areas: basic knowledge in Physics and sciences, Professional skills and Methodology. Participants were asked to review those three components in addition to the materials being used if they satisfy the academic standards, or not. Out of the 12 being questioned, 11 showed the importance of dividing the programme to those areas. The surprising fact is that none of the participants disagreed with this element.
Item Eight: Time allotted for the programme, i.e., number of weeks is adequate/ sufficient

Informants’ answers were divided equally; (50%) stated that they were average, and the other half, i.e., (50%) revealed that the time allocation was good. Two programme reviewers commented that “the time allocation depends on the teachers, trainers and trainees.”
Item Nine: Sufficient time allotted to each component, i.e., basic knowledge in Physics and sciences, Professional skills, Methodology, Materials

As stated before, the programme was divided into a number of areas. A specific period of time was devoted to each area. Respondents, then were asked to rate this latter. Answers ranged from average (34%), good (58%), to excellent (8%). The below mentioned pi-chart presents an illustration:

![Pie-Chart 4.9. Time Allocation for Each Component](image)

Item Ten: Pre-reading materials are appropriate and relevant to the work.

When asked about the pre-reading materials, the majority of those surveyed (83%) stated that were useful. Only 17% said that they were average. According to them, the list of the pre-reading materials should be updated and modified.
Item Eleven: The choice of the Staff including local trainers and foreigners is relevant to the work.

The choice of the staff was not that easy task one may think of. The researcher decided to include a number of foreigners depending on their experience in ESP teaching. A big part of the work was given to local a staff that was considered to be experts in their field of study. Proportions were presented in the next pie-chart:

Pie-Chart 4.11. The Choice of the Staff
Item Twelve: Testing tools; tests, checklists, interview, developed syllabus, developed course are appropriate to the work.

Evaluation and assessment were considered as pre-requisite in any project. To claim the validity and reliability of the work, a number of testing tools were used. Among them, the researcher decided on the inclusion of tests, checklists, interview, developed syllabus and a developed course. Results as shown below demonstrated that over half of the respondents think that they were appropriate. The other half, however, stressed on the need to exclude a set of elements as it seems a long list of testing tools and it will take lot of efforts and a long time to fulfil all those needed tasks.

![Pie-Chart 4.12. Testing Tools](image)

Pie-Chart 4.12. Testing Tools
Item 13: Suggestions for Improvement

To improve the present course, a number of suggestions were offered:

✓ To reduce the number of modules;
✓ to adjust a number of seminars;
✓ to add elements to a set of seminars;
✓ to exclude a set of testing tools.

Comments on ESPTTP Evaluation Feedback Form Main Results

After almost outlining the main profile of the trainees, their needs, lacks and expectations, the researcher has recourse to analyse the results gained from a second tool. At this level, the present form was designed to determine the overall organisation of the training besides the main components which can be added or adjusted in the programme.

Information gathering, in this case, is very essential for the design of an effective training which responds positively to the trainees actual needs and futures prospects. This view is shared by that of Ellis and Johnson (2003: 71) who suggest for the development of a well-organized course: “We need to select key components, appropriate materials, and relevant tasks and activities which will develop the learners and achieve the objectives. This requires a much more detailed knowledge of the learners’ needs.”

The results showed a general satisfaction with both the content and the form of the course. Nevertheless, a number of modifications were recommended as cited earlier in this work. To respond positively then, to our informants’ expectations is assumed to be that corner-stone any programme should be built upon.
4.1.1.3. Pre-Training Test Results

Before starting the training programme, participants were invited to sit for a test to measure their basic knowledge in physics. The total score of the task was 14 points. The time allotted for test completion was only one hour because of the nature of questions, i.e., multiple choice questions which did not need a long reflection. After correcting the trainees’ answers, the investigator calculated the median, mode, mean, range and the standard deviation. This method was also employed for the post-training test.

The table 4.1. presents a concise definitions of the five key elements cited earlier, i.e., the median, mode, mean, range and the standard deviation adopted mainly from Dorneyi (2007: 214).

<table>
<thead>
<tr>
<th>Element</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>Middle Point in a set of scores that have been arranged in a rank order.</td>
</tr>
<tr>
<td>Mode</td>
<td>Most frequently occurring score.</td>
</tr>
<tr>
<td>Range</td>
<td>The difference between the highest and the lowest score. It is the maximum value.</td>
</tr>
<tr>
<td>Mean</td>
<td>It is the minimum value.</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>Average distance of the scores from the mean.</td>
</tr>
</tbody>
</table>

**Table 4.1. Key Concepts in Test Scoring**

Adapted from Dorneyi (2007: 214)

Scoring trainees achievements in this pre-training test was considered as the first step in the process of analyzing the test and reporting the results. The next table summarizes their grades:
<table>
<thead>
<tr>
<th>N° of Respondents</th>
<th>The scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>R 1</td>
<td>07</td>
</tr>
<tr>
<td>R2</td>
<td>07.5</td>
</tr>
<tr>
<td>R 3</td>
<td>05</td>
</tr>
<tr>
<td>R 4</td>
<td>08</td>
</tr>
<tr>
<td>R 5</td>
<td>06.50</td>
</tr>
<tr>
<td>R 6</td>
<td>09</td>
</tr>
<tr>
<td>R 7</td>
<td>04.5</td>
</tr>
<tr>
<td>R 8</td>
<td>05</td>
</tr>
</tbody>
</table>

**Table 4.2: Trainees’ Scores in the Pre-Training Test.**

For a clear distribution of trainees scores in their placement test the following bar-graph is offered:

**Bar-Graph 4.1. Trainees Scores in the Pre-Training Test**

Turning now to the detailed analysis of trainees’ scores in this first test, it should be mentioned that the researcher used a set of
statistical techniques such as: measuring central tendency and variance as a part of the quantitative analysis. The results obtained from this preliminary analysis are presented in the table below:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>04.50</td>
</tr>
<tr>
<td>Maximum</td>
<td>09</td>
</tr>
<tr>
<td>Range</td>
<td>4.5</td>
</tr>
<tr>
<td>Count</td>
<td>8</td>
</tr>
<tr>
<td>Sum</td>
<td>52.5</td>
</tr>
<tr>
<td>Mean</td>
<td>6.5625</td>
</tr>
<tr>
<td>Median</td>
<td>6.75</td>
</tr>
<tr>
<td>Mode</td>
<td>05</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.6132819255879</td>
</tr>
<tr>
<td>Variance</td>
<td>2.6026785714286</td>
</tr>
<tr>
<td>Mid Range</td>
<td>6.75</td>
</tr>
<tr>
<td>Quartiles</td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>5</td>
</tr>
<tr>
<td>Q2</td>
<td>6.75</td>
</tr>
<tr>
<td>Q3</td>
<td>7.75</td>
</tr>
<tr>
<td>Interquartile Range (IQR)</td>
<td>2.75</td>
</tr>
<tr>
<td>Sum of Squares</td>
<td>18.21875</td>
</tr>
<tr>
<td>Mean Absolute Deviation</td>
<td>1.3125</td>
</tr>
<tr>
<td>Root Mean Square (RMS)</td>
<td>6.7337768005778</td>
</tr>
<tr>
<td>Std Error of Mean</td>
<td>0.57038129477444</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.06658385194033</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>1.4846004872179</td>
</tr>
<tr>
<td>Coefficient of Variation</td>
<td>0.24583343628006</td>
</tr>
<tr>
<td>Relative Standard Deviation</td>
<td>24.583343628006%</td>
</tr>
</tbody>
</table>

**Table 4.3 : Descriptive Statistics**

As far as this research work is concerned, the only following statistics will be taken into consideration:
To report the results of both the central tendency and the standard deviation was regarded as a central focus for the investigator who aimed to see the total distribution of the scores accomplished by the ESP trainees. This table shows that the most frequently score achieved in this first test was five (05), the median was (06.75) and it represented the midpoint of the scores of the trainees group. As for the S.D which was used to point out whether the learners possessed more or less the same level of achievement or not their scores showed that they ranged from 04.50 to 9 this latter means that they were far from the mean, i.e.; 06.56. This implies that the S.D 1,613 was far from the mean which denotes the low performance of the majority of the trainees.

**Comments on the Pre-Training Test Main Results**

Taken together, the previous cited results, suggest that the majority of the scores were below the central value. According to Norton (2009) this means that the bulk of the informants found the test difficult to be solved and it was positively drawn. This confirms the first idea of the researcher that trainees lack a specialized knowledge of the basics in physics and sciences in general which explains their low achievements.

A possible explanation for this might be the gap in their preparation. Teachers who are not familiar with specific concepts, who lack a basic knowledge of the field and who were trained in other fields.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Mean</th>
<th>median</th>
<th>Range</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>05.000</td>
<td>06.562</td>
<td>06.750</td>
<td>04.500</td>
<td>02.602</td>
<td>01.613</td>
</tr>
</tbody>
</table>

*Table 4.4: Summary of the Trainees’ Pre-Training Test Scores.*
of study that have almost no relation with sciences often achieve low grades in tests related to specific fields of specialism. This could be in fact, regarded as the first step in increasing their hostility towards those fields and then creating that negative attitude which most of our language teachers claim about.

For more in depth investigation, results showed that trainees answered questions of general knowledge; those they are familiar with such as item five:

**Item Five: Suppose you performed an experiment on specific heat of metals but you forgot to record the initial temperature of the metal. Which of the following ways of action would you take?**

a. Present data that are not based on the experiment.
b. Start over again as soon as you realize your mistake.
c. Copy the data of the other groups who worked on the same activity.
d. Continue with the experiment to see if the mistake makes any difference.

Items underlying a specific knowledge of physics and sciences were answered wrong. For example, item ten where they were asked to classify elements depending on their nature:

**Item Ten: Classify whether each item represents technology or pure science.**

- improvised Boyle’s Law apparatus
- improved procedure on determining the relative density of solids
- the density of water is 1 g/cc
- devices for measuring length
- mass is the quantity of matter
4.2.2. The Training Phase Results

The conduct of the actual project was motivated by the idea of enhancing ESP teachers’ professional qualifications through the implementation of an in-service teacher training programme. It was hence useful to consider the impact of those organised seminars and workshops on the teaching performance and the delivery of everyday teaching tasks by the trainees. In this vein, it was hypothesised that trainees with the same preparation will benefit a lot from a training that can match their needs and respond positively to their expectations.

In the training phase, a set of seminars and workshops were organised regularly every Thursday from nine to twelve o’clock. The time was chosen because the trainees had other teaching duties to handle during the week but happened to be collectively free on Thursday the mornings. Participants were also asked to attend a set of video-conferences with Prof. Thorold May who taught them a number of seminars. The training sessions were done during the academic year 2013- 2014. Throughout the training phase, trainees were asked to review a set of published materials for the area of English for Science and Technology as a part of their tasks, in addition to other tasks they were required to perform.

4.2.3. Post-Training Phase Results

This phase was known as the evaluating phase that aimed to evaluate and assess the impact of the in-service teacher training programme on trainees’ performance. This was undertaken through the
submission of three following instruments: achievement test, learners’ questionnaire and a semi-structured interview.

### 4.2.3.1. Post-Training Interview Results

In this post-training phase, a number of research tools were adopted. The semi-structured interview was used as a mean to test trainees feedback about the training programme. It was divided into two main rubrics. The first one was dedicated to trainees’ perception about the programme. The second one, however, was devoted to participants’ insights about their professional development. In what follows, the analysis of the first rubric is reported.

**Rubric One: Trainees Perception about the Programme**

In the first rubric, five questions were asked.

**Question One: How do you rate you experience in ESP Teacher Training Programme?**

Respondents were asked to rate their experience and to indicate whether they were satisfied or not with the programme. The results showed positive rate of the training as seen in the following pie-chart. The majority of those interviewed (80%) revealed that they enjoyed the experience. Only one candidate stated that it was not enough.
One informant reported that “To be in touch with all those experts in the field of ESP is important for us the beginners. I personally enjoyed the experience. I benefited a lot and I wish to pursue other training courses.” (R8)

Question Two: Do you think that the ESPTTP has met your real needs?

Of the eight teachers who were involved in this project, six reported that the training met their needs “as professionals who seek further assistance.” (R3) In this vein, one informant (R5) stressed on the inclusion of two essential elements: the basic knowledge in physics and Needs Analysis. She stated that “to be aware of a number of strategies and tips will help you create a friendly environment where students are engaged and motivated.” Another interviewee (R7) acknowledged the efforts done by the project coordinator to include seminars that respond positively to their needs. Respondent two on the other hand, stressed on the need to have more practice.
Question Three: What are the main changes you would like to be incorporated in your ESP in-service teacher training programme?

Respondents answers varied from “nothing to be changed” (R3) to have “face-to face meetings with foreign experts as Thorold May and more practical sessions” (R6), to “week-end workshops” (R5) to change the form of the training from being ‘intensive course to regular course’ (R7) and most importantly to adjust the schedule of the sessions to have “intensive course during the holiday”, respondent eight revealed.

Question Four: What are the main components you would like to add to the ESP in-service teacher training programme?

Participants’ answers were summarized in the following headings:

- The integration of ICT as the interactive whiteboard;
- the use of Statistical packages.

And more focus on

- teaching under supervision;
- evaluation and assessment in ESP;
- practical ways of designing syllabus.

One interviewee focused on the need to elaborate and publish a course manual and workbook for English for physics to graduate and post-graduate students. She stated that “Other component will be useful as a part of the recognition of their works is the elaboration and the publication of a training manual, a course manual in addition to a textbook and a workbook for learners of English for Physics.”
Question Five: Any other comments, would you like to add about the ESPTT Programme?

One fact which should be revealed is that 20% of those interviewed preferred not to add a comment. 80% of participants however stressed on a number of elements. Their answers were subdivided into four elements: regular seminars, week-end workshops, a common curriculum and the implementation of the ESPTTP in other departments. The following diagram illustrates this idea:

![Diagram showing respondents' comments]

**Figure 4.2:** Respondents Comments

In this regard, one interviewee revealed: “I wish that the English department takes full responsibility of organizing such training programmes and it won’t be only part of doctorate research, it ends when the candidate submits her work.”
Rubric Two: Trainees Perception about their Professional Development

In the second rubric, eight questions were asked.

Question One: What can you say about acquiring a basic knowledge in physics the science or the field which is far from your of study, i.e., the literary stream?

The overall response to this question was very positive. 100% of participants agreed on the importance of acquiring a basic knowledge of Physics which helped them in reducing a number of obstacles. Talking about this issue respondent five said:

It is an essential element in an ESP context. Now, I can say that I have a basic knowledge in sciences in general and physics in particular. This helped me a lot while dealing with topics like: power, materials, motions, engines and so on. I am not obliged to escape my students’ questions or to deal with General English topics. Dealing with themes related to their field of study attracted more and more students as they become motivated and keen to learn.

This view was echoed by another participant, i.e., respondent six who revealed that: “There is a big difference before and after acquiring this knowledge. Before, I used to focus on grammar now; I can tackle topics related to my learners’ field of specialty. I can use also authentic materials and I simply enjoy being a learner.”
Question Two: How do you describe the changes, if any, in your teaching practices as related to your participation in ESP in-service teacher training programme?

Interviewees’ answers were summarized in the following points:

- We have the needed knowledge and confidence;
- we have learned to work as a team;
- we can manage well our classes;
- we can use the principles of CLIL;
- we can analyze our learners needs;
- we can adopt materials to our learners’ level, needs and expectations;
- we can provide our learners with the accurate feedback.

Question Three: Briefly describe how do you manage now your classes?

In response to this question, most of those interviewed indicated that they have agreed to work as a team and to follow a set of phases while managing their classes. These steps were summarized as follow:

- Phase One: Breaking the ice, i.e., the warm-up phase;
- Phase Two: Course: Involving students in every task;
  Setting-up friendly environment;
  Using authentic materials;
- Phase Three: Evaluation: Asking for students’ feedback;
In this vein, respondent six revealed that:

I have learned lot of tips to manage my classes starting from the warm-up phase to the feedback phase. Now, I often ask my students to work in groups. I select learners from different backgrounds Algerians and foreigners with different levels of language proficiency so they can help each other.

Question Four: Briefly describe how do you now evaluate and assess your students’ achievements?

Talking about the issue of evaluation and assessment, interviewees agreed on the fact that they are working as a team and they have decided to mark students’ achievements based on two parameters:

✓ Formal tests and examinations: including a placement test at the beginning of the semester and an achievement test at the end of the semester.

✓ Participation, attendance, discipline, research works to be handed.

For the assessment: Extra teaching hours were devoted to assist those who scored fewer grades and have difficulties in understanding English. Participants have acknowledged the efforts of the dean to facilitate their tasks as ESP teachers in the physics department.

Question Five: Now can you say that you have a specific methodology to follow while teaching ESP?

Team teaching was the dominant-key. They all shared the view and the need to work as one group. For instance, respondent eight
stressed on the fact that they “have agreed upon a general framework to conduct courses and manage classes.” Eclecticism was the key to ESP teaching as they can use a variety of approaches in a form of an eclectic one. Respondent one, on the other hand, said that her aim “is to simplify knowledge while searching always for effective strategies and methods for language learning.”

**Question Six:** After finishing the ESPTT programme, would you like to list the set of elements which have the greatest influence on your teaching, besides your students learning?

The participants on the whole demonstrated the effect of the following parameters upon their teaching performance:

- Specialized knowledge;
- reflective teaching;
- learners’ motivation;
- learners’ attendance;
- learners’ discipline;
- teachers’ positive attitude;
- team teaching;
- availability of updated materials;
- administration support;
- the availability of syllabus to follow;
- learning how to manage classes;
- training.

**Question Seven:** As far as you professional growth is concerned, how do you compare yourself now with the past?

While addressing the issue of professional growth, informants reported that they developed a set of competences and skills by the end
of the training and now they are fully involved as ESP practitioners. They do no more escape their students’ questions as they have the ‘needed knowledge and confidence’. In this vein, Respondent three stated that: “I am no more isolated. We all work together. We help each other. We know the field, our learners’ needs, lacks and expectations. We have the positive attitude as we know the basics of physics and sciences. We are much better than the past.”

Another interviewee (R7) explained that “I was afraid before starting my career in the physics department and now after accomplishing the training sessions which have taken our needs into consideration I have a full command of my classes and I am no more afraid.”

**Question Eight: Should teachers continually endeavor to improve classroom performance?**

The majority of those who responded to this item felt the need to improve continuously their classroom performance. For them it is a must. They believed that a true and effective teacher is the only one who can keep learning. Teachers should be life-long learners who seek a continuous development “by attending seminars, workshops, conferences, study-days and training.” (R6)

**Comments on Teachers’ Post-Interview Main Results**

To determine the impact of the in-service training on our teachers’ performance was considered at the heart of this third phase. The results of this second interview indicate an overall satisfaction with the programme implemented. Informants showed a positive attitude towards the training, its content and the form.
These results mentioned above are consistent with the findings of the pre-training interview. This could be probably because it met their needs outlined during the first phase of this project where informants claimed that the lack of specialised knowledge caused the gap between the different fields of research and called for the introduction of a module to fill in that gap.

In this regard, it is assumed that if a course is tailored-made it will increase learners’ motivation and will have a positive impact on their performance. These can be revealed through trainees’ answers that did not only enjoy the experience, but also benefited from the idea of acquiring a second field expertise through attending the set of seminars entitled ‘basic knowledge in physics’ which was considered as one element among others that helped them in reducing the number of obstacles they have mentioned in the first diagnostic phase.

One surprising element is that after the end of the training trainees use to follow the same steps in evaluating and assessing their students. This latter gave them credibility. More than this, ‘team teaching’ becomes for them a key-parameter. This view reinforces that of Buckley (2000:4) who believes that “team teaching involves a group of instructors working purposefully, regularly, and cooperatively to help a group of students to learn”.

Founding an ESP network was just a recommendation I proposed years ago which turns to be reality in this work. Today, it is part of our trainees’ daily teaching life. A number of obstacles have been reduced once teachers accept to work as a team and to find a network where they can share their experiences, discuss issues and look for possible solutions.
Another important finding was that the acknowledgment of the administrative support the dean provided the participants with. For them, it is essential to have that support as it acts as an important parameter in reducing a number of obstacles they have outlined during the first interview. In this regard, administrative support as the availability of updated tools and materials including: the free access to internet in their offices, laboratories with the needed equipments, the open access digital libraries, etc, is believed to be essential elements in motivating our teachers and promoting the quality of teaching.

To provide teachers with the needed support is considered, today, to be a must. This view is echoed by that of Bailey and Springer (2013) who believe that it is the institutions duty to encourage teachers to perform their tasks and reflect upon their teaching which can take different dimensions including: paid release time, workshops, etc.

At last but not least, the most obvious finding to emerge from the analysis is that trainees shared the view that they are no more isolated as they have gained the needed knowledge and the confidence which contributed in their professional growth. These results confirm the association between three elements: needs identification and analysis which has been done during the first stage of this project. Programme components which have taken the already outlined needs into serious consideration in its second phase and the positive results which can be generated from this project and that have been reflected in the trainees’ views about their professional growth.

However, to claim that you have achieved a professional growth is not that final point that most language teachers may think. In fact, a lot is needed. This could be related to many parameters among
them the daily development of all fields of study where teachers are invited to be updated while keeping an eye on the different researches in multidisciplinary fields. This latter can be grouped under one rubric which is entitled ‘teacher development’.

These results, in fact, corroborate the ideas of Richards and Farrell (2011:169) who maintain that:

Once you complete you teacher education program, however, and take-up full-time work as a language teacher in a school or institute, you will soon realize that there is still great deal to learn, and that teaching practice cannot fully prepare you for the reality of full-time language teaching.

Hence, looking for your own professional development is believed to be a suitable solution.

In the next section, results drawn from learners’ questionnaire will be mainly discussed below.

4.2.3.2. Learners Questionnaire Results:

Having a deep insight about the situation from our learners’ perspective was of great importance for the researcher. The learners’ questionnaire was administered to one hundred students who accepted to take part in this study but only eighty students filled in and returned back the questionnaire. It was administered with the three following rationales in mind:

- To add information that would be missing;
- to cross-check the results of other instruments;
- to establish the validity of the findings.
As a matter of fact, students’ questionnaire was divided into two main sections. In the first section eight questions were asked, while five questions were asked in the second rubric. A five-point Likert Scale was used.

**Rubric One: Teaching**

In this first rubric, the focus was placed upon the teaching. Elements such as: management of materials, time, and classes were discussed in addition to teachers’ performance and stimulation of students’ interests and response to their problems. At last but not least, students were asked to highlight the aspects of teaching which were most or least useful for them. In what follows, the analysis of the eight questions will be presented.

**Question One: Has communicated class materials clearly**

Talking about this first issue, students answers varied from strongly disagree (05), disagree (03), to neutral (13), agree (30) and finally, strongly agree (24). The following bar-graph illustrates this idea:
Bar-Graph 4.2. Class Materials

Question Two: Has been well prepared for classes

In response to this question, over half of the students (46, 25%) agreed on the fact that the teachers were well prepared for classes. Only, (06, 25%) demonstrated that their instructors were not fully ready for their courses.

Bar-Graph 4.3. Preparation for Classes
Question Three: Has organized class time effectively

Time management is a crucial element in any teaching/learning context. While asked students to rate whether their teachers succeeded in the organization of their teaching time, or not. The majority showed a positive response and their answers varied from agree (47 responses) to strongly agree (22). Only, 11 informants preferred to keep neutral. The bar-graph below exemplifies this idea:

![Bar-Graph 4.4. Time Management](image)

Question Four: Has stimulated my interest in the subject

Selecting topics based on the students’ field of specialty was believed to attract their attention, stimulate their interests and motivate them. In response to this issue and as seen in the next figure, (26, 25%) expressed their complete satisfaction as topics meet their needs and
stimulate their interests. In addition to this, (72, 50%) agreed on the fact that the selection of themes was appropriate for their courses.

Bar-graph 4.5. Stimulation of Learners Interest

Question Five: Has been responsive to students problems

Out of the eighty students involved in this study, 14 students showed that their teachers were not responsive to their problems. The other 14 students preferred not to comment on this case; as they tick number 3 which means to be neutral. Yet, 52 learners agreed/ strongly agreed on the fact that their instructors were very cooperative and they responded to their problems. For a detailed analysis, the following bar-graph best illustrates this thought.
Bar-Graph 4.6. Responsive to Students’ Problems

**Question Six:** Having considered various aspects of your teachers’ performance, how would you rate the teaching overall? (Circle one grade. Do not circle the description.)

Of the 80 participants who responded to this question, 52 (65%) reported an increase in their teachers’ performance. More than this, 19 (23, 75) participants stressed on the effectiveness the teaching. The remaining nine participants were neutral.
Question Seven: Which aspects of the teaching were most useful?

- Determination and commitment of the teacher;
- the focus on English where students devoted extra efforts to understand;
- the focus on the four skills: reading, writing, speaking and listening;
- the debate where students interact with each other and with their teacher too;
- teacher is responsive to students’ problems;
- teacher respects students;
- tasks to be performed such as: exercises, research works, home works and Group-work;
- few students attending the course. This latter reduced a number of problems and created a friendly environment with the teacher.
Question Eight: Which aspects of the teaching were least useful?

- Missing illustrations;
- Difficulty in understanding English as the teachers’ level is higher than students;
- Difficult lessons;
- The absence of translation;
- Time is not enough.

RUBRIC TWO: COURSE

In the second rubric, the researcher stressed upon the course content. Learners were asked to rate the topics, skills, materials, and to reflect upon the most and least useful aspects in their courses. Students were also provided with the opportunity to suggest a set of elements to improve their English course.

Question One: How do you rate the content (topics, skills, etc) of the course?

In response to this question and as shown below, (23, 75%) revealed a strong agreement and satisfaction with the course content including topics and skills. (62, 50%) joined the first group and agreed on this fact. Yet, (13, 75%) were neutral.
Question Two: How do you rate the course materials (textbook, readings, audio, videos, etc) in this course?

The use of a wide variety of materials in the course is regarded as an essential element to stimulate students’ interests and enhance their motivation. Out of the eighty learners involved in this study, 56 shared the view that their teachers use a wide range of tools including textbooks, handouts, and audio files. The surprising element was that only one respondent completely disagreed with this idea. An illustration is offered below:
Question Three: Which aspects of the course were most useful?

- The availability of materials such as: handouts, textbooks;
- the selection of topics such as: temperature, technology and society, how to be a good scientist, etc.
- physics terminology;
- updated information.

In this regard, one informant stated that “I think all the aspects of the course were useful for me.” Another one added that “We love English may be this is the reason why I found the course very useful and interesting. I don’t get bored at all. I just enjoy the course. It gives us more ideas about English of physics.”

Question Four: Which aspects of the course were least useful?

- Writing a CV;
- Terms which are not translated to French.
Question Five: Any suggestions about how the course could be improved?

In all cases, the informants reported the following suggestions:

- Involve more students in conversation and debate;
- Focus more on speaking;
- More focus should be given to EST;
- Use other textbooks;
- The inclusion of other ICT tools such as data show;
- The practice of English in laboratories;
- Tackle more scientific topics and themes;
- To include topics about general chemistry;
- To include translation to help those who cannot understand English;
- Extra hours twice per week;
- Have texts to be prepared in advance to have the possibility to search for difficult words;
- Change the time-table (beginning of the week);
- Improve the pronunciation and speaking (audio and video files).

Comments on Learners’ Questionnaire Main Results

As outline above, the main rationales behind the inclusion of learners’ questionnaire as another tool in this work is to have deep insights about the situation from our learners’ angle and to cross-check the results of other instruments mainly the interview and the tests. In this vein and based on the results outlined before, a number of conclusions can be drawn:
Learners’ satisfaction with their teachers’ management of materials and time besides, their preparation for their classes may all reveal a progress in teachers’ performance. This fact has been also cross-checked in the sixth question as the majority of informants reported an increase in their teachers’ performance.

In this vein, the bulk of learners acknowledged the determination and the commitment of their teachers. Responding then, positively to the learners’ problems, stimulating their interests, managing effectively their time while including a variety of materials are believed to be among those essential signs that can reflect a real progress in the teachers’ performance which also confirms the findings of the post-training interview. Informants who attended the courses were very motivated to fill in the questionnaire, and they stressed on the fact of including translation as an essential component which facilitates the task for them.

Another important conclusion is that learners who developed an awareness of their needs and who enjoyed their lectures proposed a number of suggestions as they were fully aware that their teachers will take them into serious consideration. To provide a number of suggestions may reflect a positive relationship between the teachers and their learners. This could be clearly seen in their request to have extra hours, twice per week and to have texts before the start of the lectures to be prepared in advance. This latter shows a growing interest in the module which was almost absent before.

4.2.3.3. Post-Training Test Results

After the end of the training programme, participants were invited to sit for a second test to measure once again their basic
knowledge in physics. The total score of the task was 14 points. The
time allotted for the test completion was only one hour because of the
nature of questions, i.e., multiple choice questions which did not need a
long reflection. After correcting the trainees’ answers, the investigator
calculated the median, mode, mean, range and the standard deviation.

The next table summarizes their grades:

<table>
<thead>
<tr>
<th>N° of Respondents</th>
<th>The scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>R 1</td>
<td>09</td>
</tr>
<tr>
<td>R2</td>
<td>08.5</td>
</tr>
<tr>
<td>R 3</td>
<td>08</td>
</tr>
<tr>
<td>R 4</td>
<td>07.50</td>
</tr>
<tr>
<td>R 5</td>
<td>08</td>
</tr>
<tr>
<td>R 6</td>
<td>13</td>
</tr>
<tr>
<td>R 7</td>
<td>11</td>
</tr>
<tr>
<td>R 8</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 4.5: Trainees’ Scores in the Post-Training Test.

For a clear distribution of trainees’ scores in their
achievement test the following bar-graph is offered:
Bar-Graph 4.10. Trainees Scores in the Post-Training Test

Following the same steps as the first test, in this post-training test detailed analysis of trainees’ scores focused on measuring: central tendency and variance as a part of the quantitative analysis. The results obtained from this preliminary analysis are presented in the table below:
### Table 4.6 : Descriptive Statistics

As for this study, only the six mentioned below elements will be taken into consideration:

<table>
<thead>
<tr>
<th>Central tendency</th>
<th>Mode</th>
<th>Mean</th>
<th>median</th>
<th>Range</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>08,000</td>
<td>09,375</td>
<td>08,75</td>
<td>07,500</td>
<td>03,482</td>
<td>01,866</td>
</tr>
</tbody>
</table>

**Table 4.7: **Summary of the Trainees’ Post-Training Test Scores.
This table shows that the most frequently score achieved in this first test was eight (08), the median was (08.75) and it represented the midpoint of the scores of the trainees group. As for the S.D (1.866) which was used to point out whether the learners possessed more or less the same level of achievement or not their scores showed that they ranged from 07.50 to 13 this latter means that they were close to the mean, i.e.; 09,375. This denotes the high performance of the majority of the trainees.

**Comments on Post-Training Tests Main Results**

The main aim behind the implementation of a second test is to check whether informants have acquired a basic knowledge in physics or not. Another important rational is either to confirm or disapprove the results gained from the previous cited tools. In other words to cross-check the already mentioned findings. To report, then, the results of both the central tendency and the standard deviation were regarded as a central focus for the investigator.

Taken together, these results suggest that the majority of the scores were above the central value. This means that the majority of the participants found the test easy to be solved. This confirms the researcher vision that trainees should be exposed to seminars which provide them with the necessary knowledge in the field of general physics. In this case, it can be claimed that ESP instructors working at the level of the physics department are no more considered to be the ‘strangers in the strange land’ Hutchison and Waters (1987) have talked about decades ago.

For more detailed analysis, results revealed that after the end of the training sessions, trainees were able to answer broad questions, i.e., those items they are familiar with such as item three:
Item 3: Jose saw big crabs crawling on the sand. He wondered where they came from so he started investigating. What scientific attitude did Jose show?

a. open-mindedness
b. resourcefulness
c. curiosity
d. patience

Items underlying a specific knowledge of physics and sciences were also solved. For example, items eight and nine where they were asked about leaders in the field:

Item 8: Who formulated the laws of motion?

a. Sir Isaac Newton
b. Robert Boyle
c. Albert Einstein
d. Benjamin Franklin

Item 9: Who was responsible for the discovery of geothermal energy?

a. Melecio S. Magno
b. Christopher Bernido
c. Arturo P. Alcaraz
d. Henry Ramos

After accomplishing both tests; pre and post, the researcher compared results to check the degree of progress of her informants. The following bar-graph clarifies and shows the difference in trainees’ achievements in both phases; before and after the training:
As it is clearly displayed in the above mentioned bar-graph, there was a considerable growth in trainees’ achievements. Taking respondent six (R06) for instance, she scored nine (09) in the first test and thirteen (13) in the second test. Respondent seven (R07) who achieved four and a half (04.50) which was regarded as the lowest mark in the pre-test, she attained eleven in the post-test. This was considered as the second best mark after the one achieved by informant six (R06).

The results, in fact, are consistent with data obtained from the two other tools, namely: the post-training interview and learners’ questionnaire. Both parameters teachers and learners revealed a noticeable progress in teachers’ performance. Trainees have already mentioned their ability to tackle topics of close interest to their students, besides their ability to select authentic materials. These latter can be perceived as a difficult task to be achieved in the case language teachers know little or nothing about a given field of specialism. These
final results support previous findings drawn from various training courses worldwide that have been reviewed in the second chapter (See 2.12. A review of ESP teacher training programmes worldwide), which aim to enhance the specific knowledge of language teachers appointed to teach in ESP context.

4.3. SUMMARY OF THE MAIN FINDINGS

Results drawn from various tools and resources showed that there were a positive correlation between trainees’ needs and the delivery of the training that aimed to enhance their professional qualifications as a moderate path towards responding positively to their learners’ expectations.

The first research question was proposed to check whether the theoretical training informants have undergone during their magister preparation meet their needs or not. Results showed that trainees still lack consolidation of a number of areas. Tests results confirmed this view, the majority of participants scored low marks which denoted that they need to acquire a basic knowledge in physics and sciences. Trainees also claimed that whenever they were appointed in a new environment they were obliged to reinvestigate the field to form a general overview and to search for possible ways to reduce the number of issues they often face.

As for the second question, it aimed to check whether ESP practitioners perform better when acquiring a second field of expertise or not. Data analysis revealed that having a basic knowledge of a specific field is a pre-requisite in ESP context. This facilitates the teaching/learning process. After attending the training sessions, teachers admitted that they consider their selves to be real ESP practitioners as they can tackle different topics students are familiar
with, comment on a number of issues and open further debates aiming to enhance their level of language proficiency while tackling topics such as: power, engines, motions, etc.

The last question aimed however, to confirm the idea that providing ESP practitioners with specialised in-service training help them function effectively in their target situation. Data derived from various sources displayed that attending the seminars and performing all the tasks helped trainees in their teaching careers. Nevertheless, this does not mean that training is the magic device which brings change to teachers’ situation. As language instructors, they should strive for a continuous development that could be achieved by different means and following a wide range of techniques including most importantly the following specific characteristics: modesty, curiosity, open-mindedness, flexibility and the positive attitude towards all the fields of research.

4.4. CONCLUSION

In this investigation, the aim was to check whether providing teachers with a specialised in-service training will help them function adequately in their target situation or not. This chapter is considered at the heart of this study as it revealed the practical part of this project. It endeavoured to answer the already established research questions and described the results through three stages, including pre; while and; post-training phases. The findings outlined above draw our attention to the importance of assisting novice ESP teachers in their daily tasks through the delivery of a tailor-made training that meets their needs, lacks besides, expectations.

The next chapter, therefore, moves on to discuss the importance of providing future teachers with the necessary knowledge and confidence before the start of their careers as ESP instructors. This
could be best practiced in a form of a pre-training programme which is
designed and delivered in the institute of English Language under the
form of a Master in English for Specific Purposes.
CHAPTER FIVE

A PATHWAY FOR IMPROVING ESP TEACHING
CHAPTER FIVE

A PATHWAY FOR IMPROVING ESP TEACHING

5.1. INTRODUCTION

5.2. PRE-SERVICE TEACHER TRAINING COURSE OVERVIEW

5.3. PRE-SERVICE TEACHER TRAINING COURSE AIMS

5.4. PRE-SERVICE TEACHER TRAINING COURSE OBJECTIVES AND FINAL OUTCOMES

5.5. COURSE MATERIALS

5.6. POSSIBILITIES OF EMPLOYMENT

5.7. STUDY UNITS

5.8. FACILITATORS

5.9. TRAINEES EVALUATION AND GRADING STUDENTS ACHIEVEMENTS

5.10. RECOMMENDED READING

5.11. DETAILED PROGRAMME

5.11.1. Semester One

5.11.1.1. Module One: Dilemmas in ESP Teaching

5.11.1.2. Module Two: Needs Analysis and Identification

5.11.1.3. Module Three: Syllabus Design

5.11.1.4. Module Four: Applied Linguistics and TEFL

5.11.1.5. Module Five: Research Methodology

5.11.1.6. Module Six: Research Methods in ESP

5.11.1.7. Module Seven: Discourse
Analysis

5.11.1.8. Module Eight: Technical Translation

5.11.1.9. Module Nine: ICT

5.11.2. Semester Two

5.11.2.1. Module One: Academic Writing

5.11.2.2. Module Two: Discourse Variation in Professional Communities

5.11.2.3. Module Three: Course Design

5.11.2.4. Module Four: Teacher Development

5.11.2.5. Module Five: Research Methodology

5.11.2.6. Module Six: Case Studies in ESP

5.11.2.7. Module Seven: Intercultural Communication

5.11.2.8. Module Nine: Basic Knowledge in Science and Technology

5.11.2.9. Module Ten: The Use of ICT in ESP Teaching

5.11.3. Semester Three

5.11.3.1. Module One: Working from Authentic Materials

5.11.3.2. Module Two: Evaluation in ESP

5.11.3.3. Module Three: Programmes Management in ESP

5.11.3.4. Module Four: Errors Analysis and Learners Feedback

5.11.3.5. Module Five: Basic Knowledge in Engineering
5.11.3.6. Module Six: Research Methodology

5.11.3.7. Module Seven: Basic Knowledge in Business

5.11.3.8. Module Eight: Development of a Research Proposal

5.11.4. Semester Four

5.11.4.1. Module One: Dissertation Writing

5.11.4.2. Module Two: Teaching under Supervision

5.12. CONCLUSION
5.1. Introduction

Although, the end of this work is almost achieved, obstacles were a burden on our shoulders. They have influenced, in one way or another, the process of implementation, delivery and evaluation of the training programme. A heavy pressure was experienced while coordinating the training sessions because of a set of variables including notably the financial support. A vast majority of trainers who were contacted in the pre-training phase apologized for not being able to fulfil this task because of the lack of financial support.

The chief concern behind tackling the previous component, i.e., the financial support is that if the newly recruited ESP researchers would be able to manage well the following pedagogical implications, a better teaching/learning professionalization could be achieved. Monitoring, then, an in-service teacher training programme is important for the members who are engaged in this particular situation. For the vast majority, on the other hand, it could be of vital value if our prospective ESP practitioners are trained during their studies in the area of ESP with all its related items. Based on the idea of Zumana (2007), helping future teachers acquire a basic knowledge in widely common fields including namely sciences, technology, business, and engineering could reduce a number of hindrances they would face in real teaching situations.

To provide future practitioners with a sound academic training is very important. A period of two years including three semesters of fully attendance and one semester of teaching practice could help them function adequately in their target situations. As for students, they will get a Master in English for Specific Purposes whenever they pass their
examinations and submit all their tasks including a dissertation. In what follows, the aims of these pedagogical suggestions with all the related components are presented carefully.

5.2. Pre-Service Teacher Training Course Overview

A formal pre-service teacher training programme in a more organized and sophisticated way under the label of ‘Master in English for Specific Purposes’ could be an adequate solution to the issues cited before. Students, who hold a licence in English, can apply for MA position. This latter tends to prepare learners to pursue their studies and involve in a Master and Doctorate research in a more specialized area of teaching English which is theoretically known as ESP. It also aims to equip future teachers with a sound preparation while combining systematically those needed skills including: the professional and cross-professional competences they are required to have, to be effective ESP instructors.

To supply learners with a working knowledge in the areas of applied linguistics, methodology and strategies used in teaching Foreign Languages along with ESP may enable them, to follow further studies. Then, will be involved as researchers in one of the main sub-branches of ESP teaching. Therefore, providing future holders of MA in ESP with such training requires a number of components. Intercultural competence may hold the lion-share. This could be explained by the fact that acquiring an intercultural competence is crucial in a world which is running towards globalization as a process including our Algerian institutions.
5.3. Pre-service Teacher Training Course Aims

The course aims to equip learners with solid foundations, in case they wish to pursue further studies in more dedicated areas of ESP which will be organized by the English Language and Literature Department. It will focus on the English language training within more specialized academic, scientific and professional settings that aims to provide learners with content-specific terminology, the needed language skills, pedagogical knowledge and that specialized knowledge designed to motivate them and strengthen the possibilities of starting their professional careers and respond positively to the demands of the job-markets.

The course is, consequently, designed to help learners understand a number of elements associated with ESP as an area of research including primarily issues in ESP teaching, the growth of ESP research, evolvement of ESP instruction, syllabus design and course delivery. Needs Analysis is also regarded as the core-stone in this modular. A combination of both theory and practice is the most important strategy the course instructor makes use of. This could be explained by the fact that, learners would be invited to design syllabus, adopt materials and deliver courses for specific learners involved in particular contexts.

5.4. Pre-service Teacher Training Course Objectives and Final outcomes

At the end of the training, trainees are required to acquire, hopefully, a number of skills and competences including chiefly the following items:

a. Transversal skills including the ability to
➢ Conduct a literature review;
➢ perform analysis and reflection;
➢ present orally the findings of a personal research.

b. Disciplinary skills while focusing primarily on
➢ Mastering syntax, vocabulary and linguistic analysis tools;
➢ understanding the structure of language: syntax and vocabulary;
➢ acquiring a deep knowledge of educational, linguistic and cultural theories.

c. Professional skills
➢ Develop teaching courses which respond positively to the programmes provided by the Ministry of Higher Education and Scientific Research as common bases;
➢ develop knowledge of how to conduct a needs analysis of students;
➢ Analyze different situations, including business, scientific settings critically and constructively.
➢ Develop a working knowledge for the exercise of the profession in a school, university or in private institutions.

5.5. Course Materials

Learners are invited to use a number of materials including chiefly:

- Textbooks;
- Pdf documents and Word files;
- PPT presentations;
- portfolios;
5.6. Possibilities of Employment

Students who will have a Master in ESP have the opportunity to:

☑ Teach in different contexts as ESP instructors including, business, scientific and social sciences contexts.
☑ Teach, publish, occupations requiring a good knowledge of the language and culture of English-speaking countries.
☑ Train trainees out of institutional framework: private language center; training companies, language schools
☑ They can also work as editors, publishers, translators, journalists in the public or private sector.

5.7. Study Units

As far as this course is concerned, there will be twelve units; four of them are directed to the three semesters while the fourth semester will be devoted for teaching under supervision and dissertation writing. Each unit is further divided into a number of modules. For the first unit, four modules are proposed whereas for the three remaining units two modules need to be covered. The following table summarizes the content of the study units for the four semesters.
### Table 5.1. The First Semester Study Units

<table>
<thead>
<tr>
<th>Unit</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit I</td>
<td>Dilemmas in ESP Teaching</td>
</tr>
<tr>
<td></td>
<td>Needs Analysis and Identification</td>
</tr>
<tr>
<td></td>
<td>Syllabus Design</td>
</tr>
<tr>
<td></td>
<td>Applied Linguistics and TEFL</td>
</tr>
<tr>
<td>Unit II</td>
<td>Research Methodology</td>
</tr>
<tr>
<td></td>
<td>Research Methods in ESP</td>
</tr>
<tr>
<td>Unit III</td>
<td>Discourse Analysis</td>
</tr>
<tr>
<td></td>
<td>Cultural Studies</td>
</tr>
<tr>
<td>Unit IV</td>
<td>Translation</td>
</tr>
<tr>
<td></td>
<td>ICT</td>
</tr>
</tbody>
</table>

During the second semester students will be supposed to attend the following modules:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit I</td>
<td>Academic Writing</td>
</tr>
<tr>
<td></td>
<td>Discourse Variation in Professional Communities</td>
</tr>
<tr>
<td></td>
<td>Course Design</td>
</tr>
<tr>
<td></td>
<td>Teacher Development</td>
</tr>
<tr>
<td>Unit II</td>
<td>Research Methodology</td>
</tr>
<tr>
<td></td>
<td>Case Studies in ESP</td>
</tr>
<tr>
<td>Unit III</td>
<td>Discourse Analysis</td>
</tr>
<tr>
<td></td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>Unit IV</td>
<td>Basic Knowledge in Science and Technology</td>
</tr>
<tr>
<td></td>
<td>The Use of ICT in ESP Teaching</td>
</tr>
</tbody>
</table>

### Table 5.2. The Second Semester Study Units
In their third semester, apprentices will be trained in the following areas of research:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit I</td>
<td>Curriculum Design</td>
</tr>
<tr>
<td></td>
<td>Evaluation in ESP</td>
</tr>
<tr>
<td></td>
<td>Programmes Management in ESP</td>
</tr>
<tr>
<td></td>
<td>Learners Evaluation and Assessment</td>
</tr>
<tr>
<td>Unit II</td>
<td>Research Methodology</td>
</tr>
<tr>
<td></td>
<td>Language Planning and Education</td>
</tr>
<tr>
<td>Unit III</td>
<td>Psycho pedagogy</td>
</tr>
<tr>
<td></td>
<td>Basic Knowledge in Computing Science</td>
</tr>
<tr>
<td>Unit IV</td>
<td>Basic Knowledge in Business</td>
</tr>
<tr>
<td></td>
<td>Development of a Research Proposal</td>
</tr>
</tbody>
</table>

**Table 5.3.** The Third Semester Study Units

As for the last semester, i.e., semester four, students are asked to teach under the supervision of their trainers and submit a dissertation in one of the chosen areas of ESP research. The table below points out this idea:

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task I</td>
<td>Teaching Under Supervision</td>
</tr>
<tr>
<td>Task II</td>
<td>Dissertation Writing</td>
</tr>
</tbody>
</table>

**Table 5.4.** The Fourth Semester Tasks
The first unit of the first semester reveals four main proposed modules including chiefly: Dilemmas in ESP teaching, Needs Analysis and Identification, syllabus design, applied linguistics and TEFL. This unit is considered as an introduction to the key concepts in ESP teaching and learning. Learners are, then, expected to acquire the required knowledge relevant to the ESP land. This could help them, later on, go deeper in more specific areas and to further practice the theories they have acquired at this level.

To learn how to identify accurately learners’ needs is considered as a pre-requisite in the ESP context. This could be regarded as the first step towards designing an effective course which responds positively to the apprentices’ real needs and expectations. Learners at this stage are required to develop an awareness of how to analyse their apprentices wants, needs and prospects while being familiarized with the different theories and methods of Need Analysis and Identification.

Learners in their third module are introduced to the key elements in the design of syllabus. As it is almost known that in ESP situation, the instructor is not only a teacher but also a performer of other tasks and duties, that is, to design an appropriate syllabus to motivate the learners, to meet their real needs. Therefore, familiarizing students with those existing approaches to ESP syllabus design will assist them while adopting the most adequate method they judge to be useful.

In the last module, i.e., applied linguistics and TEFL trainees are invited to strengthen their knowledge and skills in the areas related to the teaching of English as a foreign language in a more interdisciplinary perspective. Topics such as: research training in
language teaching, the use of ICT notably in social sciences, humanities and education will be discussed respectively.

5.8. Facilitators

Teachers who would be appointed to teach Master students are supposed to be ESP practitioners with a long teaching experience in this area of research. Subject specialists would be also invited to take part in a number of seminars aiming to equip students with a basic knowledge in a number of specialties including notably; science, technology, business, computing sciences.

The role then, of those facilitators is ease the task for learners to keep an eye on their improvements, evaluate and assess every task they would be asked to fulfil. Face to face courses, exchanging emails, accessing moodle are the three important methods the instructors will use. In this regard, the presence of the moodle will help students and their instructors to upload and download assignments, update tasks, and have access to materials online and offline.

5.9. Trainees Evaluation

This could be done though the use of the following methods:

- Final exams;
- viva mini-projects and projects at the end of the study;
- individual works such as: submitting papers and writing reports;
- tests of short duration (continuous assessment during the semester);
- submitting dissertations.
5.10. Recommended Reading

Once students are selected and admitted to this training course, they are asked to start a pre-training phase where they are required to read the following documents and then, submit a short review:


Learners who want to delve in this field; they are invited to perform a general reading which includes:


5.11. **Detailed Programme**

In the following lines, a tentative programme is suggested. This latter could be modified according to the trainees’ real needs.

5.11.1. **Semester One**

As stated previously the current proposed course is divided into four semesters. The first one is regarded as an introduction to the field of ESP teaching which has been always a field of interest for many researchers worldwide. Then, it will be useful for future teachers to be enlightened about its current trends and issues.

**Module One: Dilemmas in ESP Teaching**

This module attempts to introduce learners to the area of ESP. Acquiring, then, background knowledge of the field is a pre-requisite.

- **Outline**
  - ESP Overview: Interpretations, Features and Parameters
  - History of ESP
  - Needs analysis
  - Teaching ESP: Curriculum, Syllabus and Course design

- **Evaluation**: Written exam in addition to the provision of individual work.

- **Suggested Reading Materials**: (Books and handouts, websites, etc.).

### 5.11.1.1. Module Two: Needs Analysis and Identification

At the end of this course, prospective teachers will be able to learn how to analyze effectively the academic requirements, professional needs and future prospects of their apprentices which help them in developing a practical course. At this level, a Good knowledge of the concepts and approaches related to ESP teaching will be further consolidated.

**Outline**

- Approaches for Needs Analysis and Identification
- Principles of Needs Analysis and Identification
- Strengths and weaknesses of different kinds of Needs Analysis and Identification
- Examples of Needs Analysis and Identification

**Evaluation:** Written exam besides, individual work to be fulfilled.
Suggested Reading Materials (Books and handouts, websites, etc.).


5.11.1.2. Module Three: Syllabus Design

At the end of this course, students are expected to reach the following outcomes:

1. Developing a working knowledge and the needed skills in language teaching in an interdisciplinary approach;
2. consolidating different approaches related to the development of specialized language programs;
3. enable our trainees to develop a set of programs that directly address the real needs of students are considered to be among those final outcomes trainees are expected to achieve.

❖ **Outline**

- Definitions of Course, Syllabus, ESP and ESP Course Curriculum / Syllabus Design
- Types of Syllabus
- Different Approaches to syllabus design
- Examples of a designed Syllabus

❖ **Evaluation:** Written exam, in addition to individual work to be provided.

❖ **References**

- Garcia, DG (1976) Decisions and Variables in Curriculum Construction: Their Implications for Syllabus Design in English
5.11.1.3. Module Four: Applied Linguistics and TEFL

To develop a mastery of the basic concepts in applied linguistics aiming at enhancing students’ self-reflection, promote the acquisition of a thorough knowledge of various contemporary issues in applied linguistics and teaching English as a foreign language are among those goals this module is devoted for.

❖ Outline

➢ Language and language practices
➢ Applied linguistics and language learning / teaching
➢ Applied linguistics and language use
➢ Theories of First Language Acquisition
➢ Teaching Language as a Foreign Language

❖ Evaluation: Written exam, in addition to individual work to be provided.

❖ References

5.11.1.4. Module Five: Research Methodology

This module aims to help students consolidate the basics in research methodology such as the construction of an observation process, developing a grid of observation, data collection, processing and analyzing the results they have gathered from their preliminary case studies.

❖ Content
  ➢ Research methods in applied linguistics
  ➢ Research instruments
  ➢ Classroom observation: developing a checklist
  ➢ Data collection
  ➢ Data analysis
  ➢ Realizing preliminary studies.

❖ Evaluation: Written examination.

❖ References


5.11.1.5. **Module Six: Research Methods in ESP**

Students should be aware of the fact that teaching ESP is related to different methods and approaches. The choice of a specific approach must be systematic. It must respond to a domain-specific technical or scientific practice. The terms should refer to a shared reality, objects, practices or simply processes. The availability and control of those key terms and systematic approaches in foreign languages and knowledge acquired in the course of the license are further developed at this stage.

❖ **Content**

➢ Research Methods in ESP

➢ Different Approaches to ESP Teaching

➢ Communicative Activities

➢ Task Based Instruction, Lexical Based Approach, CLIL, etc.

❖ **Evaluation:** Written examination.

❖ **References**

5.11.1.6. Module Seven: Discourse Analysis

The purpose of this subject is to introduce students to the major theoretical frameworks and issues in discourse analysis and demonstrate the relevance and usefulness of research in the field of discourse analysis. To ensure the practical application of the course, each participant should carry out a research on a particular topic in discourse analysis, using data gathered during the semester. A good knowledge of different concepts of language acquired in the course of the license (materials methodology) will be considered as a prerequisite at this level.

❖ Content

➢ Introduction to Discourse
➢ The study of discourse
➢ Types of Discourse
➢ Speech acts
Pragmatics

Critical Discourse Analysis

CDA Case Studies

**Evaluation:** Written exam, in addition to individual work to be provided.

**References**


5.11.1.7. **Module Eight: Technical Translation**

Most language teachers face a daily problem in their ESP teaching context as their students ask them to provide terms equivalents in the target language. Then, the translation of scientific terms using various teaching materials would be addressed during this module. It is, then, necessary to study the field terms to refer to its various aspects. Good knowledge of theories, strategies and techniques of translation besides, the mastery of scientific terminology, literary as well as various important areas in socio-economic, cultural and political life, translation from words, sentences, paragraphs and texts from one
language to another target language and theme release could be of great value for our future teachers.

❖ **Evaluation:** Written examination.

❖ **References**

Bilingual dictionary (English-French and French-English)

5.11.1.8. **Module Nine: ICT**

The use of ICTs besides, search engines is considered to be among the prerequisite in not only ESP teaching/learning situation but also in almost every field of research today. Then, the need to learn useful techniques to integrate effectively those facilitating tools cannot be achieved unless a thorough preparation of our learners’ is achieved. The full command of the most advanced computerized documentation link, systems, software and hardware will facilitate that task for them. Basic knowledge of computer skills and proper use of software database corresponding to the proposed research will be maintained during this course.

❖ **Content**

- Word processing
- Graphics and Multimedia
- Databases search
- Search Engines
- Issues in computing

❖ **Evaluation:** Written exam, in addition to individual work to be provided.
5.11.2. **Semester Two**

Throughout this second semester, students will go deeper in the field of ESP teaching where they are supposed to attend the following courses: academic writing, discourse variation in professional communities, Course design, teacher development, etc. The first module is devoted to quality writing.

5.11.2.1. **Module One: Academic Writing**

The main objective of this course is to help learners to write academic works such as abstracts, articles. Emphasis will be placed upon the development of original academic arguments using appropriate textual evidence and develop a style of elegant and sophisticated prose. Knowledge of the basics of writing whose content corresponds to the curriculum of the BA degree in English will be further consolidated at this stage.

**Content**

- The writing process
- Getting started
- Choosing a topic
- Exploring a topic
- Making a plan
- Organizing paragraphs

---

**References**

➢ Revision
  • Writing Foundations
  • Reading and note-making
➢ Elements of writing:
  ➢ Cohesion
  ➢ Comparison
  ➢ Discussion
  ➢ generalization
  ➢ Accuracy in writing
➢ Writing models:
  ➢ Letters, essays, CVs, abstracts

❖ Evaluation: Written exam and work to be provided.

❖ References

5.11.2.2. Module Two: Discourse Variation in Professional Communities

This module aims to develop the needed skills and technical analysis of different types of discourse primarily related to gender studies, and deepening students’ knowledge of the different genres belonging to the different contexts being; academic, professional, scientific or vocational. The main theories of discourse analysis could be further practiced in this module.

❖ Content

- Key concepts definitions: Functional variation, discourse analysis, registers, styles, and genres;
- The practice of discourse in professional communities: gender analysis;
- Genres differences in specific contexts; academic, business, legal, science, and media;
- Disciplinary variation in academic genres;
- Genre-mixing in discourse variation and analysis;
- Ways to analyze academic and professional practice in discourse variation;
- Intercultural and cross-cultural variation in gender;
- Issues in critical gender analysis.
- Discourse variation in professional communities case studies.

❖ Evaluation: Written exam, in addition to individual work to be provided.
5.11.2.3. Module Three: Course Design

As part of this present section, the student should be imparted with the basics for the development of different types of courses and units. To meet this end, a knowledge corresponding different approaches related to the teaching of English language and the development of specialized courses for specific objectives should not be only consolidated theoretically but further practiced.

Content

- Definition of ESP course design
- Characteristics of ESP courses
- Approaches to ESP Course Design
  - Language -centered Course Design
  - Skills -centered Course Design
  - Learning -centered Course Design
- Elements in ESP Course Design
  - Steps in ESP Course Design
  - Needs Analysis

References

o Specifying the Goals and Objectives
o Course / Syllabus Design
o Implementation / Methodology
o Evaluation

❖ Evaluation: Written exam, in addition to individual work to be provided.

❖ References


5.11.2.4. Module Four: Teacher Development

The aim of the module is to help future teachers to define, discuss and establish relations between the following concepts namely TT, TD, TE for the sake of a better teaching/ learning professionalization. Teaching quality will be also addressed carefully. Trainees will be asked
to suggest solutions to those issues related to teacher development and further practice a set of tips which facilitate for them the task of teaching.

❖ **Content**

- Key-concepts definition: Teacher Training, Teacher Development, Teacher Education
- Teaching/ Learning Professionalization
- Teaching Quality: elements and framework
- Issues in Teacher Development
- Teaching at primary, middle, secondary and tertiary level institutions: Issues and tips

❖ **Evaluation:** Written exam, in addition to individual work to be provided.

❖ **References**

Chapter Five: A Pathway for Improving ESP Teaching


5.11.2.5. Module Five: Research Methodology

Students will be introduced to the different types of research used in the field of social sciences and humanities. They will be also encouraged to respond critically to a problem based on the goals they have outlined and the approach adopted being exploratory, descriptive or explanatory. Knowledge of the basic principles related to the methodology of foreign languages learned during the first semester will be consolidated during this second phase as the methodological process for the treatment of a problem will be linked to a real life situation.

❖ Content

- Key-concepts definition; Methods, methodology, approach, techniques, tools, data collection and analysis
- Construction of a hypothesis construction and research questions
- Adopting the appropriate research methodology to a specific situation
- Techniques to collect data
- Methods to analyze data
- Developing research projects

❖ Evaluation: Written examination.
References


5.11.2.6. Module Six: Case Studies in ESP

Throughout this module, students are supposed to have an outlook on a set of case studies conducted in different areas of ESP teaching. They are expected to reflect critically upon the context of a particular study, the tools and techniques introduced while
accomplishing the work and the different needs and expectations of the sample involved in that research work.

❖ **Content**
  - ESP Case Study: English for Social Sciences
  - ESP Case Study: English for Science and Technology
  - ESP Case Study: Legal English
  - ESP Case Study: Business English
  - ESP Case Study: English for Computing
  - Writing their final feedback on a chosen case study

❖ **Evaluation:** Written exam, in addition to individual work to be provided.

❖ **References**


**5.11.2.7. Module Seven: Intercultural Communication**

At the end of this module, students are expected to acquire a thorough knowledge of a field of investigation as far as interculturality and didactics, including the integration of the intercultural dimension into new teaching approaches to programs development.

❖ **Content**

➢ Definition of communication

➢ Types of communication

➢ Culture and language teaching
  
  o Intercultural communication
  
  o Intercultural communicative competence
  
  o Intercultural awareness
  
  o Cross-cultural communication

➢ An Intercultural Approach to Second Language Education

➢ The role of culture in successful business communication
  
  (case study)

❖ **Evaluation**: Written examination.

❖ **References**

Chapter Five                                  A Pathway for Improving ESP Teaching


5.11.2.8. Module Nine: Basic Knowledge in Science and Technology

The main aim of the module is to provide students with a working knowledge in science and technology besides, the needed tools to understand and address many of the challenges our trainees may encounter once they are appointed to teach English for Science and Technology. Our future teachers will be provided with opportunities to understand terms and concepts related to a number of fields. The knowledge which is gained at the end of the course will revolve around the following items; concepts, laws, and theories, the scientific community, etc.

❖ Content

➢ Introduction to the discipline ‘Science and Technology’:
  o Chemistry
  o Mathematics
  o Physics
● IT
  ● Technology
    ➢ Nobel Prize Winners
    ➢ Understanding scientific terms and concepts
    ➢ Major laws and theories in science and technology
    ➢ Explaining a scientific process

❖ **Evaluation:** Written exam, in addition to individual work to be provided.

❖ **References**


5.11.2.9. **Module Ten: The Use of ICT in ESP Teaching**

A worldwide concern for adopting and incorporating ICTs in teaching and learning can be seen as an urgent response to a wide range of factors including, the pedagogical and socio-economic forces. Better information access; better communication; synchronous and asynchronous learning; enhanced cooperation and collaboration, cost-effectiveness and pedagogical progress are regarded to be among those unlimited benefits of integrating such facilitating tools in our ESP teaching/learning settings.
Content

- Definition of key-concepts: ICT, Pedagogy and Curriculum
- ICT integration in ESP context
- The integration of ICT as a facilitating tool in ESP curriculum design
- ICT and the new roles of ESP teachers
- ICT as a tool to boost ESP learners motivation and achievements
- Case studies of ICT integration in ESP context

Evaluation: Written exam, in addition to individual work to be provided.

References


5.11.3. Semester Three

A number of issues will be tackled in this third semester such as programmes management in ESP, learners’ evaluation and assessment, errors analysis, developing research proposals, etc.

5.11.3.1. Module One: Working from Authentic Materials

Language teachers involved in ESP context are faced with the dilemma; what to teach and how to teach. In other words, finding suitable and meaningful materials which either go hand in hand with the published textbooks or replace these latter can be considered as a real challenge for the majority of ESP instructors. Adopting then, authentic materials can be regarded as a moderate step towards enhancing learners’ motivation and interest. As a last stage in this course, trainees will be able to evaluate and adopt authentic materials
to their contexts. They will be also asked to create and present their materials based on an authentic one.

❖ Content

➢ Authenticity in ESP context
➢ Exploration of the key-term: authentic materials
➢ Different types of authentic materials
➢ Evaluate and adopt an authentic material to ESP contexts
➢ Design tasks based on an authentic material
➢ Create and present their materials based on an authentic one

❖ Evaluation: Written exam, in addition to individual work to be provided.

❖ References


5.11.3.2. Module Two: Evaluation in ESP

As far as this module is concerned, students will be invited to define, describe and discuss the potentials of a number of critical terms in ESP context, namely; testing, evaluation and assessments.

❖ Content

➢ What is testing and evaluation?
➢ Evaluation Vs Assessment
➢ Types and functions of testing and evaluation
➢ Assessment of students’ achievements in ESP context

❖ Evaluation: Written exam, in addition to individual work to be provided.

❖ References


5.11.3.3. Module Three: Programmes Management in ESP

ESP courses are often taught in public as well as private institutions either in groups or one-to-one. Whatever the situation is, trainees are expected to contribute in the promotion of their learners’ level of language proficiency at the end of course. Moreover, they are supposed to pay a careful attention to the design and delivery of their teaching programmes. Students, at this level, will not be only aware of the main components related to the management of programmes in ESP context but they will be also prepared to manage effectively those projects based on a set of parameters.

❖ Content

➢ Definition of key-terms: management, projects, effectiveness
➢ ESP projects management
➢ Developing ESP projects
➢ Elements in ESP projects:
  ➢ Time
  ➢ Financial Support
  ➢ Pedagogical Support
  ➢ Availability
  ➢ Needs and Expectations
chapter five

- Project evaluation and effectiveness
- Case studies of ESP projects

❖ Evaluation: Written exam, in addition to individual work to be provided.

❖ References


5.11.3.4. Module Four: Errors Analysis and Learners Feedback

In this actual module, students together with their teachers will discuss and reflect upon the importance of errors analysis including the appropriate way and time to correct learners’ errors in the classroom.
Trainees are invited to adopt a positive attitude towards their students by asking, accepting and reflecting upon their learners’ feedback.

Content

- Errors Vs Mistakes
- Types of Errors
- Errors Analysis
- Errors Correction
- Errors Analysis: Working from Students’ Mistakes when and how to correct
- Teachers learners relationship
- Learners as active members in teaching/learning process
- Types of Feedback: formal, informal, online, surveys, interviews, etc
- Ways of encouraging learners to provide their feedback on their experiences

❖ Evaluation: Written exam, in addition to individual work to be provided.

❖ References

This course tends to equip future language teachers with the needed skills and knowledge related to the field of engineering. Stressing on those main sub-branches of engineering with a special focus on developing the terminology related to the field would be of great value for our trainees. Though understanding and acquiring the basic knowledge in engineering is regarded as a challenging task for our prospective instructors, it is believed to be of great value in the case the course would be run by subject specialist who is fully involved in this area of research.

**Content**

- Introduction to the discipline: Engineering
- Introduction to the Sub-disciplines of Engineering
  - Electrical Engineering
  - Electronic Engineering
  - Mechanical Engineering
  - Architecture Engineering
  - Aeronautical Engineering
- Engineering Materials
- Issues in Engineering: Hazards and Safety
- Working with Written Instructions
 Careers in Engineering

 Evaluation: Written exam, in addition to individual work to be provided.

 References


5.11.3.6. Module Six: Research Methodology

In this last part of the research methodology course, trainees will be familiarized with those methods appropriate to data collection and analysis, how to analyze data, interpret and present their findings. The main purpose is to help students, later on, develop their own research works where reliability and validity are critical-elements they should be aware of.

 Content

 ➢ Data Collection methods
 ➢ Data Analysis methods
 ➢ Statistical Packages for Data Analysis
Data Presentation
Data Analysis
Data Findings
Data Interpretation
Reliability and Validity of a Research Work
Generalization of Findings

Evaluation: Written exam, in addition to individual work to be provided.

References


5.11.3.7. Module Seven: Basic Knowledge in Business

As a part of preparing future language teachers for the unknown, students are supposed to gain a basic knowledge in a number of areas including mainly business and economics. In the present module trainers will help apprentices to be familiar with the discipline
its structure, historicity, main sub-disciplines, etc. These may help them later on function adequately in their target setting.

❖ **Content**

- Business Historicity
- Items in Business Activities
  - Production
  - Distribution
  - Supply/Demand
  - International Trade

- Management
  - International Manager roles and skills
  - Economy and Economic Activities
  - Economic Systems

- Marketing
  - Product, Price, Place, Promotion
  - Companies: Definition, Types of Companies

❖ **Evaluation:** Written exam, in addition to individual work to be provided.

❖ **References**

5.11.3.8. Module Eight: Development of a Research Proposal

The aim of the course is to help students develop a research proposal based on the set of competences acquired during their training. This would be regarded as the first step towards realizing a true research work in a specific area of study where a combination of theory and practice could not only be promoted but also achieved.

Content

- Selecting a project theme
- Project planning
- Project organization
- Research proposal components
  - Theoretical Framework
  - Statement of the Problem
  - Purpose of the Study
  - Research Questions and Hypotheses
  - Design, Methods and Procedures
- Sampling
- Instruments
- Data Collection and Analysis
- Limitations and Delimitations of the Study
- Significance of the Study
- List of References

**Evaluation:** Research proposal to be presented.

**References**


### 5.11.4. Semester Four

The fourth semester will be divided into two main parts. The first part will be devoted to dissertation writing and the second one will revolve around teaching under supervision where students will be supposed to be involved in real life teaching tasks. At this level, it should be stressed on the fact that both elements will be ran simultaneously.
5.11.4.1. Module One: Dissertation Writing

Dissertation writing is often considered as a challenging task for the majority of researchers as they are often faced with the dilemma of what to choose and how to choose. The choice, then, of an appropriate theme, framework, the sampling procedures, the data needed should be done carefully. Moreover, transferring all those components to concrete and cohesive ideas, words, statements, paragraphs and finally to a complete dissertation is without a doubt a demanding assignment. Learners together with their supervisors will work on reducing those obstacles. Trainers will help students in themes selection, methodology application and data analysis and before all in thesis development. Learners are expected to make use of the competences they have acquired during their five years study. A dissertation, at this level, is regarded eclectic product where a combination of both theory and practice should be achieved.

5.11.4.2. Module Two: Teaching under Supervision

Being involved in meaningful contexts can be considered as an important path towards achieving a better professionalization of the teaching/learning process. To meet this end, our trainees in their fourth semester are supposed to start their teaching vacancies in different departments under the supervision of their trainers. Supervision and Monitoring are regarded as essential components. Assisting them in the process of needs analysis, syllabus design, course development, solving a set of issues related to classroom management, time organization will be of great value for them. As a matter of fact, trainees will not only be in need of assistance but also to the trainers worthy feedback. An effective experience, therefore, for our future teachers could not be achieved unless the three critical elements should be practiced, notably;
guidance, understanding and support. At the end of the module, students will be scored depending on a set of criteria including mainly, their performance, commitment, tasks fulfilment and involvement.

5.12. Conclusion

To conclude, this chapter was about pre-service teacher training. It was a pathway to improve prospective ESP teachers’ preparation and was a moderate attempt to afford learners with a sound training in the area of ESP teaching as a part of their initial preparation, and equip them with the needed skills and competences to enable them to start their careers as ESP practitioners.

To start with a limited number of language teachers is a central problematic. It concerns those who are appointed in the physics department to teach English for a definite purpose then to shift to a wider community, i.e., those who wish to be recruited in different departments as ESP instructors. Going a step further, it can be stated that claiming generalizability of findings is a hard task for a small scale project like the present one and this is not our attention. To call, then, for the adoption of this training as a part of the initial education of teachers-learners is the main focus.

To list all those modules, objectives, the needed materials, the list of references that are used, can be regarded as a window every single ESP researcher needs to look through to form a full picture of an organized pre-training course for the preparation of our future ESP instructors who are supposed to bring quality, commitment and innovation to the teaching of ESP, the field which is still in its infancy in Algeria.
CHAPTER SIX

THE WAY FORWARD
CHAPTER SIX

THE WAY FORWARD

6. 1. INTRODUCTION
6. 2. AN OUTLOOK ON THE STUDY
6. 3. LIMITATIONS
   6.3.1. Participants
   6.3.2. Financial Support
   6.3.3. Methodology
   6.3.4. Time
6.4. IMPLICATIONS FOR FURTHER RESEARCH
6.5. QUALITY TEACHER PREPARATION
6.6. THE WAY FORWARD
6.1. INTRODUCTION

The last chapter summarizes the study and throws light upon the quality of teacher preparation. This is to trace a roadmap for the new generation of researchers in language teaching, policy making and decision taking to bridge the gap between the instructors’ preparation and the needs, requirements and expectations of today’s labour markets. This chapter is divided into two main sections; the first part summarizes the thesis; its main problematic, methodological approach and its final outcomes. The second part, however, aims to list the limitations the researcher has faced, in addition to a number of implications for further researches with a special focus on the quality of teachers’ preparation. The chapter ends up with a conclusion where endeavours where made to pave the way to further researches in areas related to ESP as a field of inquiry.

6.2. AN OUTLOOK ON THE STUDY

This study is aimed to bridge the gap between the teaching requirements in the department of physics and the need to form effective ESP teachers because this latter is required to improve the students’ level of language proficiency and their motivation. As a moderate step towards reframing the study a strong need has emerged to call back the main objectives of this investigation. To start with, the current work has been established aiming to enhance ESP teachers’ professional qualifications through the implementation of an in-service teacher training programme tailored for instructors who are teaching at the physics department within the faculty of Exact Sciences. To determine, then, the effectiveness of the in-service preparation of the newly recruited ESP teachers who have been guided by the
researcher’s experience as a former trainee of IH Barcelona Business English Course for English Teachers and those training programmes worldwide is regarded as another objective the study attempts to achieve.

To meet this end, a number of questions have been put forward:

- Does the theoretical training our ESP teachers have undergone while studying meet their professional needs?
- Do our ESP practitioners perform better when acquiring a second field of expertise?
- To what extent does providing ESP practitioners with specialised in-service training help them function effectively in their target situation?

The following set of hypotheses has been established to provide answers to the above mentioned questions:

1. Though our ESP teachers have undergone limited theoretical training in ESP, it still remains not enough for them as it does not meet their professional needs.
2. Acquiring a second field expertise is believed to be of value for our ESP practitioners. It may help them perform better while taking part in specialised language environments.
3. For ESP practitioners, to receive a range of specialised in-service training in different areas, and adjusted for their level of skill, may help them to function effectively in their target situations.
Presenting the significance of this study, providing definitions of some key terms to avoid misinterpretation of any term being used in this work is of equal importance to the research work.

As a part of the literature review, an overview of English for Specific Purposes was provided. It concerns a set of different definitions related to ESP, various phases of its development, its main subdivisions in addition to, the typical characteristics of its courses. Furthermore, a detailed description of the various roles an ESP practitioner is supposed to fulfil, the different approaches he may adopt in his classes, and the various phases of preparation he needs to undergo are discussed.

The methodology of this work consists of mixed-methods approach. The administered instruments are the combination of tests, questionnaires and interviews to gather as much as possible in-depth information, to draw a full picture for a clear profile of the project being implemented.

The analysis of collected data displays that though teachers have received training in ESP as part of their magister degree it remains, theoretical since it did not meet all their needs especially that of acquiring a specialized knowledge of a number of areas they are supposed to take part in. This has influenced their ability to function adequately in their target situation, i.e., Physics department.

Based on these findings, a set of recommendations and suggestions are provided in the last chapter for the benefits of both elements; teachers and learners. Nevertheless these pedagogical and administrative reforms remain only theoretical because a radical change from the part of decision makers at the university and ministry
of higher education is required. This could be done to maintain balance between the requirements of different situations; academic, professional, technological, economic and scientific through preparing teachers who seek to promote the ESP teaching situation and are absolutely aware of the requirements of their different teaching situations. Thus, to have knowledge of the main principles of ESP and to be ready to accept changes by adopting positive attitude towards the fields they teach are regarded as a pre-requisite.

6.3. LIMITATIONS

In terms of limitations, four types are identified, notably; participants, financial support, methodology and time.

6.3.1. Participants

Participants are considered to be a part of the aforementioned limitations. Working in small scale project using a limited number of teachers (participants) who have been provided with training may have some impacts on data collection and analysis. At this level, it is almost impossible to claim the generalizability of the research findings. To another extent, trainees fully commitments have been reconsidered a number of times throughout the different phases of this projects. The Participation of a number of ESP international instructors have been questioned and cancelled at the early phase of the training due to financial support.

6.3.2. Financial Support

This issue could be classified as a part of the participants limitations. This is because a group of trainers have refused to take part
in this study due to the lack of the financial support. Then, to find a source to fund the project is almost impossible and the researcher has recourse to update the final list of trainers depending on their responses after almost explaining the nature of the project, i.e., being a part of a PhD thesis conducted by a PhD student. For trainees, on the other hand, and thanks to the dean of the faculty of Exact Sciences and as a part of their teaching duty, they have insured to have all the necessary support and hence, to be paid at the end of each semester they complete.

6.3.3. Methodology

The methodology used in this study relies on the mixed-methods approach. It is the combination of both qualitative and quantitative data. However, using a variety of tools from different data sources may not be considered enough for such a work because it may lack the classroom observation which was and still is considered as unwelcome idea for a number of teachers. With the questionnaire there is the risk that learners’ answers do not reveal their own views, as well as the current attitudes towards their teachers, teachers’ performance and their course content.

A set of difficulties were faced while trying to conduct the interview this because of its length, i.e., a long list of questions in each rubric. Yet, an explanation of the main rationales behind such interview was given. The aim is to gather, at a large extent, in-depth data which is believed to be of great value for the study. The risk of bias is always present while using such tool. Nevertheless, the investigator has attempted to reduce its negative effects as much as possible.
6.3.4. Time

Time is primordial for any specific study. Data collection and analysis were handled within a precise period of time. In this work, the investigator started the process of gathering data in 2010 and the training has been officially launched during the academic year 2012-2013. This fact may have some effects on the collected information.

6.4. IMPLICATIONS FOR FURTHER RESEARCH

As the findings display, the study is considered as a sign that ensures better understanding which leads to the development and the promotion of the ESP teaching situation. Imposing reforms, then, will not provide any benefit for anyone, unless language teachers accept change, ready to accommodate to a new land with new perspectives, ideas, techniques, methodology and reject routine via self-development because each teacher is responsible for his own progress. This latter can pave the way for other instructors to be involved in research through ‘action research’, and ‘classroom-oriented research’. In what follows, quality teaching, along with, teacher preparation quality are questioned.

6.5. QUALITY TEACHER PREPARATION

Teaching, the profession which is almost known for its demanding and complicating assignments is among those favoured opportunities actual students are looking for. Nevertheless, to be appointed as a teacher is not that easy task one would go through. To get a BA ‘Licence’ in many specialties and English in particular may help apprentices apply for teaching vacancies and positions. Again, it is
not yet enough to start a very long journey in the instruction land as a real teacher in the case they rely only on the theories they have learned during their studies.

Central to this vision a number of key-terms have been discussed during the whole process of building up and reporting this research work. Teacher training, education, development, professionalization and teaching quality have been used to unfold the possible ways to prepare actual and prospective teachers and to enhance their professional qualifications.

To prepare teachers effectively while paying attention to the surrounding circumstances and issues could not be revealed in one moderate work. Therefore, looking for quality teaching and teacher preparation quality cannot be insured if it is relied only on the top-down process, i.e., applying doctrines, models as they are, without further considerations of the real needs of the teachers, learners and even their managers. Moreover, a careful consideration of the context particularities plays an essential role in the teaching/learning process.

As for Results, they showed that teachers who have been appointed to teach ESP classes with a prior-knowledge of the field have expressed their need to further consolidate a set of areas they have been trained during their initial preparation. This latter does not mean to be ill prepared as other researchers may claim; nevertheless, they still need to be exposed to a real life situation where they can outline their real needs and expectations and address them carefully. At this level, the need to highlight a set of components which should be presented in teachers’ preparation programmes is assumed to be a prerequisite. Before embarking on the discussion of this last issue, a number of indicators of teachers qualifications should be insured notably;
educational background, certification, subject matter knowledge, verbal ability, other test scores, teaching experiences. (Becker and Kennedy, 2003:11)

As professionals, we should call for the development of programmes that meet at least the following components; finding the curricula balance within preparation programs among content knowledge, pedagogical knowledge, and monitored [classroom] experience. Extending teacher preparation into the first years of teaching with high-quality, state-funded new teacher induction programs that includes links to the teacher preparation institution. (PSEA, 2010: 01)

To move further, a conceptual framework has been proposed by Scheerens (2010). It is based on the idea of an ongoing process which starts at the micro-level and reaches the macro-level where the teacher is considered at the heart of this course of actions. His competences, attitudes and attributes should be taken into great consideration which may contribute, later on, to the teaching effectiveness in the classroom. Cooperation with other members of the same school is another component this framework is composed of. To conclude, the need to form teachers who would be fully involved in the teaching profession cannot be achieved unless they acquire the ability to reflect critically upon the existed national policies along with organizational features including issues of autonomy, accountability, evaluation in education systems.

As a final point, one may say that learners’ motivation, progress and achievements have been always linked to teachers' efforts and effective teaching which could not be achieved unless the teachers are engaged in “effective, ongoing professional learning to develop
progressively higher levels of expertise” (Fraser, 2005:02) where the need is still existing “to update our skills and knowledge continuously, not only in response to a changing world but in response to new research and emerging knowledge about learning and teaching.” (p02)

6.6. THE WAY FORWARD

The conclusions are restricted to a specific group of teachers in a specific context. Therefore, it may not be accepted by other teachers in other universities. Consequently, another study is required to reach this purpose. It is then, possible for researchers to use a large sample of population which may include other faculties within the same university, i.e., University of Tlemcen, or other universities to get an adequate degree of representativeness that may ensure generalization of findings.

To explore and identify the ways to enhance language instructors’ professional qualifications is of great importance. This is because it can lead to other studies which revolve around training for ESP teaching, implementing and assessing ESP courses, besides the design of materials relevant to ESP teaching. Most importantly, and for the aim of improving the teaching/learning process, to bring about change in any situation an ESP teacher is involved in, is a necessity. As a matter of fact, teachers need first to accept change as an essential component in the progress of any process and most precisely that of the ESP teaching; accepting this idea, besides their willing to learn new ways of teaching may constitute a great help for both teachers and learners. Hence, ESP teachers should be seen as affective learners who seek a daily development for a continuous improvement which should join knowledge, theory and practice.
In a broad of view, this chapter aims to provide some recommendations that may help both prospective teachers and those who are already engaged in different ESP teaching situations to better cope with the requirements of the target situations and to attempt to participate in the promotion of the ESP teaching situation in Algeria as a whole. It is of crucial significance to mention that these proposed recommendations cannot be considered effective if they remain only theoretical. Practice, then, is almost needed. Accepting both change and innovation under the label ‘teacher development’ will help the newly appointed teachers to acquire expertise through experience.
BIBLIOGRAPHY
BIBLIOGRAPHY


Bell, B & Gilbert, J (2005). Teacher Education: A Model from Science Education. USA: Taylor & Francis, Inc.

Bell, J. (1987). Doing your research project. UK: Open University


Winch, C. (2004). What Do Teachers Need to Know about Teaching? A Critical Examination of the Occupational Knowledge of


APPENDICES
## Module 01

*Course introduction: ESP Vs GE*

<table>
<thead>
<tr>
<th>Content</th>
</tr>
</thead>
</table>
| • Marking the shift from general English to English for Specific Purposes  
  • Defining ESP  
  • The GE Teacher in contrast with the ESP Practitioner |

<table>
<thead>
<tr>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Trainees will be able to consider the differences between ESP and General English, state those problems a general English teacher faces while involved in ESP contexts, and reflect on the wide range of roles required of ESP practitioners</td>
</tr>
</tbody>
</table>

## Module 02

*English for Sciences and Technology ‘EST’: what is it?*

<table>
<thead>
<tr>
<th>Content</th>
</tr>
</thead>
</table>
| • The importance of EST  
  • English and Sciences: the interdependent relationship |

<table>
<thead>
<tr>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Trainees are required to reflect upon the need to learn English in scientific contexts, and to discuss the importance of EST</td>
</tr>
</tbody>
</table>

## Module 03

*Strand Introduction: Teacher Development & Teacher Training*

<table>
<thead>
<tr>
<th>Content</th>
</tr>
</thead>
</table>
| • Define: Teacher Training  
  • Teacher Development  
  • Teacher Education  
  • Teaching/Learning Professionalization |
<table>
<thead>
<tr>
<th>Objectives</th>
<th>• Trainees will be able to define, discuss and establish relations between the following concepts namely TT, TD, TE for the purpose of better teaching/learning professionalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Module 04</strong></td>
<td>Pre-Course Needs Analysis &amp; the Design and Administration of Needs Analysis: questionnaires, interviews and placement tests</td>
</tr>
</tbody>
</table>
| **Content** | • Approaches for NA  
• Principles of NA  
• strengths and weaknesses of different types of NA  
• Placement Tests  
• Examples of NA and placement tests |
| **Objectives** | • Trainees are invited to take a pre-course needs analysis and to agree upon the best set of optional modules  
• Define, state, describe, suggest and discuss different models of needs analysis  
• Present case studies of needs analysis they conduct |
| **Module 05** | Approaches & Techniques for Teaching EST |
| **Content** | • An overview of Content, Task, Lexical Analysis & CLIL  
• Advantages and disadvantages of each approach  
• The Eclectic Approach |
| **Objectives** | • Trainees are required to discuss and reflect upon the approaches, methods and techniques appropriate to EST teaching |
| **Module 06** | Syllabus Design – extended simulation |
| **Content** | • Different approaches to syllabus design  
• Strengths and weaknesses of each approach |
<table>
<thead>
<tr>
<th>Module 07</th>
<th><strong>Sourcing Materials from the Internet</strong></th>
</tr>
</thead>
</table>
| **Objectives** | • Comment on different approaches to syllabus design  
• Describe the importance of designing a suitable syllabus based on real needs analysis  
• Trainees are invited to design a syllabus |
| **Content** | • Learning how to adapt different materials from the internet including audio, videos, ppt, pdf and word files |
| **Objectives** | • Trainees are encouraged to use the internet as a rich tool which provides a wide range of materials |

<table>
<thead>
<tr>
<th>Module 08</th>
<th><strong>Doing it yourself: Published &amp; Authentic materials for English for Physics (+ homework task 1)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
<td>• To be able to decide which materials will suit the learners’ needs</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>• Review, evaluate and select published and authentic materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 09</th>
<th><strong>Course Design – extended simulation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
<td>• At the end of the course trainees are required to design a sample of courses</td>
</tr>
</tbody>
</table>
| **Content** | • Different types of course design  
• Factors influencing course design: learners’ needs, deficiencies, contextual requirements, future perspectives  
• Examples of a designed course |

<p>| Module 10 | <strong>Presentations + working from authentic published material for this area</strong> |</p>
<table>
<thead>
<tr>
<th>Module 11</th>
<th>Finding the balance: you don’t need to be a scientist to teach EST</th>
</tr>
</thead>
</table>
| **Content** | • English and Sciences  
• Overcoming the obstacle of being a stranger in a foreign land using practical techniques |
| **Objectives** | • Trainees are encouraged to adopt a positive attitude towards their students in the field of student specialization, namely “physics” |

<table>
<thead>
<tr>
<th>Module 12</th>
<th>Using videos to benefit your students</th>
</tr>
</thead>
</table>
| **Content** | • Using videos as an essential element to enhance learners’ comprehension  
• Examples |
| **Objectives** | • Demonstrate why using visual aids including videos is considered to be useful to those teachers seeking to enhance their learners’ motivation |

<table>
<thead>
<tr>
<th>Module 13</th>
<th>Language Analysis: the Nature of Certain Types of Scientific Discourse</th>
</tr>
</thead>
</table>
| **Content** | • Scientific discourse overview  
• Typical characteristics of scientific discourse  
• Examples of discourse analysis |
<p>| <strong>Objectives</strong> | • To be able to analyse different types of text found in different areas of ESP, including the scientific sphere |</p>
<table>
<thead>
<tr>
<th>Module 14</th>
<th>The Integration of ICT in the Teaching/Learning Process</th>
</tr>
</thead>
</table>
| **Content** | - Barriers for ICT integration  
- Ways of integrating ICT  
- Impacts of integrating ICT  
- Models of integrating ICT as a pedagogical tool |
| **Objectives** | - Trainees will benefit from tips and techniques to integrate ICTs in their teaching/learning setting to enhance their learners’ achievements |

<table>
<thead>
<tr>
<th>Module 15</th>
<th>The Use of Case Studies and Simulations</th>
</tr>
</thead>
</table>
| **Content** | - How to use case studies in EST classrooms  
- Simulations used to enhance learners’ motivation |
| **Objectives** | - Roles plays and simulations are essential keys to enhancing the motivation and performance of learners |

<table>
<thead>
<tr>
<th>Module 16</th>
<th>Technical Writing</th>
</tr>
</thead>
</table>
| **Content** | - Writing abstracts, articles  
- Translation from French to English and vice-versa  
- Learning grammar in context |
| **Objectives** | - Trainees are required to reflect on the typical characteristics of technical writing and learn to create a checklist to expand in their classrooms |

<table>
<thead>
<tr>
<th>Module 17</th>
<th>Guide to published materials (+set up a homework task 2)+ a review of published materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>- Published Materials Guide</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>- Trainees will be provided with an up-to-date guide to published materials which will be help them</td>
</tr>
<tr>
<td>Workshop</td>
<td>Creating &amp; Presenting your authentic materials</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>Trainees are asked to create and present their own materials based on an authentic source</td>
</tr>
<tr>
<td><strong>Module 18</strong></td>
<td>Teaching Lexis for English for Physics</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>Principles of the lexical based approach</td>
</tr>
<tr>
<td></td>
<td>Terminology use in the EST context of ‘physics’</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>Learning tips on how to select appropriate lexis for physics contexts</td>
</tr>
<tr>
<td><strong>Module 19</strong></td>
<td>Teaching Scientific Discourse</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>Scientific discourse</td>
</tr>
<tr>
<td></td>
<td>Teaching scientific discourse: obstacles and challenges</td>
</tr>
<tr>
<td></td>
<td>Learning or mediating the content: English for sciences or sciences in English?</td>
</tr>
<tr>
<td></td>
<td>Tips and techniques to teach scientific discourse</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>Distinguish scientific discourse from other types of discourse, and reflect on the underlying challenges for the teaching of scientific discourse</td>
</tr>
<tr>
<td><strong>Module 20</strong></td>
<td>English for Sciences: the roles of collocation</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>The importance of collocation in EST</td>
</tr>
<tr>
<td></td>
<td>Examples of collocation</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>Learn how to use collocation through the use of examples</td>
</tr>
<tr>
<td><strong>Module 21</strong></td>
<td>Customizing and integrating pronunciation work</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>Including pronunciation tasks in the EST course</td>
</tr>
<tr>
<td></td>
<td>Examples using different texts focusing on pronunciation activities.</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>Trainees develop their own tasks where they focus</td>
</tr>
</tbody>
</table>
on pronunciation for the sake of enhancing their learners speaking skill through contextualized teaching

### Module 22  
**Developing Oral Presentations**

**Content**
- Style, presentation, arguments
- Body language as a non-verbal communication tool
- Qualities of a good presentation

**Objectives**
- Trainees will learn new ideas to help their students develop appropriate oral presentations

### Module 23  
**Participating in Conferences, Seminars and Workshops**

**Content**
- Slide preparation in steps & the use of visual aids
- Writing out your speech
- Participating in conferences, seminars and workshops; Reflections on others’ presentations

**Objectives**
- Encouraging trainees to gain knowledge of those tips which may help learners succeed while participating in conferences, seminars and workshops

### Module 24  
**Optional session 2: teacher roles**

**Content**
- Professional duties
- Position responsibilities
- Roles of ESP practitioners: positive & degenerative potential

**Objectives**
- Trainees are encouraged to reflect on their roles, duties and responsibilities as EST practitioners

### Module 25  
**Testing, Evaluation and Assessment in ESP**

**Content**
- What is testing and evaluation? Why do we do it?
- Types and functions of testing and evaluation
<table>
<thead>
<tr>
<th>Module 26</th>
<th><strong>Errors Analysis: Working from Students’ Mistakes</strong></th>
</tr>
</thead>
</table>
| **Content** | - Errors Vs Mistakes or Slips  
- Types of Errors  
- Error Analysis  
- Error Correction  
- Error Analysis: Working from students’ errors when and how to correct |
| **Objectives** | - Discuss and reflect on the importance of error analysis including the appropriate way and time to correct learners’ errors in the classroom |

<table>
<thead>
<tr>
<th>Module 27</th>
<th><strong>Learners’ Feedback: Listening to our Students</strong></th>
</tr>
</thead>
</table>
| **Content** | - Teacher-learner relationship  
- Learners as proactive members in the teaching/learning process  
- Role reversal: students teach physics to teachers. The importance of reciprocation in learning. Overcoming cultural barriers to reciprocation Types of Feedback: formal, informal, online, surveys, interviews, etc  
- Ways of encouraging learners to provide their feedback on their experiences |
| **Objectives** | ✓ Trainees are invited to adopt a positive attitude towards their students by asking, accepting and reflecting on their learners’ feedback |

<table>
<thead>
<tr>
<th>Module 28</th>
<th><strong>Integrating the Four Skills for EST Teaching</strong></th>
</tr>
</thead>
</table>
| **Objectives** | - How do we assess our students’ achievements in EST?  
- Define, describe and discuss the potentials of testing, evaluation and assessments in an ESP context |
| Content                                              | ➢ Integrating different skills: Reading, Speaking, Listening, Writing in the EST context  
|                                                      | ➢ Types of activities to enhance learners’ skills and performance |
| Objectives                                          | ✓ Trainees are invited to reflect on the skills required in their context, and to learn tips to integrate skills based on their learners’ needs, wants and language shortcomings |
| WORKSHOP                                            | **Preparation & Presentation of Case study** |
| **Content**                                         | ➢ Preparation  
|                                                      | ➢ Presentation of Case studies |
| **Objectives**                                      | ➢ Trainees are encouraged to prepare and present their final case studies including the design of: syllabus, curriculum and course based on the results of an NA they have already conducted. |

➢ **Trainees’ feedback & Final feedback**

**Table:** Course Syllabus
Appendix ‘B’

Instructions for Providers of EST Training

- **Type of Training**

  Training sessions will take the form of a blended learning where trainees will undergo an online training with the international staff. This latter will be reinforced with a face to face training seminars and follow up workshops with the project organiser, in addition to the national board.

- **Content**

  Appropriate training activities should focus on providing our participants with a sound guidance in different areas of specialism including approaches, skills and techniques for teaching EST, classroom management, learners’ errors analysis, in addition to the integration of ICT in Teaching/ Learning Process, Syllabus design and teaching lexis for English for Physics, etc.

- **Location**

  The training sessions are organised in the following way:
  - Face-to-face: Department of Physics and that of Foreign Languages of Tlemcen University.
  - Online: video-conferences.

- **Duration**

  - Online course: Three weeks
- Face-to-face: It should last at least 08 weeks. The maximum duration of the EST Teacher Training Course is 12 weeks.

- **Trainers**

  The training sessions are covered by a multinational team; national ‘face-to-face’ and international ‘online’ board. The foreign trainer aims to provide online training for non-native speakers of English language, in ESP besides, EST. The local team has a wide teaching experience in teaching English as a Foreign Language. They are ESP practitioners and researchers, in addition to, our subject specialist, whose task is to provide our trainees with a second field expertise in physics.

- **Participants**

  The trainees who take part in this project are already appointed ESP practitioners at the Physics department of Tlemcen University and who have essentially undergone a theoretical training in ESP and who were rewarded a Magister in this field of study, i.e., ESP.

- **Evaluation**

  - A pre-training test is delivered with the aim to test the trainees’ basic competence in physics.
  - Participants are also required to create their own teaching materials and develop a syllabus as well as a course.
  - A final evaluation session at the end of the training activities is included.
  - Participants have also the opportunity to provide their feedback as far as the training course is concerned in an attempt to
evaluate and, hence, assess the effectiveness of those training sessions.

- **Groundwork and Preceding Phases**

- At a first step, Participants are provided with a suitable pre-training programme and materials.
- During and after the training, participants will receive a set of follow-up activities which help them to take full advantage of these sessions (e.g. online activities, keep in touch with not only their trainers via emails but also with their colleagues, self-evaluation of lessons, etc).
I. Rubric One: Trainees Profile and Preparation

1. Can you tell us about yourself and your background as a language teacher first, then as an ESP practitioner?
2. What is your area of expertise?
3. Have you gained any further qualification in ESP Teaching since being awarded or accomplished your Magister? If yes, please state which?
4. Have you undergone any specialized training in ESP before?
5. Do you need any further training in this area of research?
6. Does the English department offer any in-service training or professional development courses on this issue, i.e., teaching EST to teachers?
7. Do you know of any other providers, institutions mainly offering courses in this field?
8. What do you think of your preparation as a language teacher?
9. Apart from the English department, have you taught before at the physics department or at any other EST context?
10. Do you think that your theoretical training had prepared you for that situation, i.e., teaching ESP in real context?

II. ESP Teaching/Learning Situation

1. As a language teacher could you list please the set of difficulties you encounter in ESP context?
2. How did you plan to overcome those obstacles?
3. How do you describe your role as ESP teacher?
4. Describe, briefly, how do you manage your classes?
5. Describe, briefly, how do you evaluate and assess your students’ achievements?
6. Is there any specific methodology to follow while teaching ESP?
7. What are your main needs as an ESP teacher? Technical skills? Reflective practice? Specialized knowledge? Other?
III. Trainees Attitudes and Expectations at the Physics Department

1. Is there any gap between the literary streams your background and the scientific stream where you are supposed to start a new experience?
2. What do you expect from/ the experience of being appointed at the physics department as ESP teacher?
3. How could you, then, describe your first attitude?
4. To which extent you think that the lack of specialized knowledge in physics would have a negative impact on your teaching performance?

IV. Trainees Future Prospects/ ESP teaching Suggested Remedies

1. According to you, what makes a good teacher?
2. How can novice develop or acquire these skills and qualities?
3. What makes professional development effective? And not effective?
4. What professional development strategies can be used to meet your needs as ESP teacher?
5. What are the main changes you would like to be incorporated in your initial preparation at both graduate and postgraduate studies as a language instructor?
6. According to you, who would be the responsible for the organization of ESP practical training courses to better overcome the absence of a specialized ESP teaching methodology?
7. What are the main areas you wish the ESP in-service teacher training programme covers?
Instructions: Dear professor,

The researcher is conducting a study for the PhD degree. This study is concerned with designing and implementing a suggested program for developing the teaching performance of ESP teachers at the Faculty of Exact Sciences of Tlemcen University, ALGERIA.

You are kindly requested to read the sample of the program and the procedures suggested in the trainer's manual and give your opinion.

| Project Title                                                                 | Towards Enhancing ESP Practitioners Professional Qualifications through Implementing In-Service Teacher Training Programme: An Action Research on the Newly Appointed ESP Practitioners at the Physics Department of Abou Bekr Belkaid University, TLEMCE

| Discipline                                                                 | Research project submitted as a partial fulfillment of the degree of 'Doctorate' in ESP English for Specific Purposes, English for Physics. |

| Project Coordinator | Ms. Nawal MEBITIL |

### Overview (Please rate each item by typing letter x in the appropriate box)

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Avg.</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The overview of the programme is clear, specific and relevant.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The objectives of the programme are well established.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The components of the programme are relevant to teachers needs and then to the work.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The objectives of each module are clear and relevant.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The tasks of each module are relevant.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>The organization of programme sessions consisting of seminars presented by trainers and workshop monitored by trainees’ participation and feedback is relevant to the overall aim of the work.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The programme structure; basic knowledge in Physics and sciences, Professional skills, Methodology, Materials satisfies the academic standards.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Time allotted for the programme, i.e., number of weeks is adequate/sufficient.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suggestions for improvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>----------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Sufficient time allotted to each component, i.e., basic knowledge in Physics and sciences, Professional skills, Methodology, Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Pre-reading materials are appropriate and relevant to the work.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Testing tools; tests, checklists, interview, developed syllabus, developed course are appropriate to the work.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The choice of the Staff including local trainers and foreigners is relevant to the work.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ANSWER THE FOLLOWING QUESTIONS

1. All of the following are physical sciences except
   a. physics
   b. chemistry
   c. botany
   d. astronomy

2. Which of the statements below is a scientific hypothesis?
   a. Seawater is denser than freshwater
   b. Physics is the study of matter and energy.
   c. Atoms are the smallest particles of matter.
   d. Albert Einstein is the greatest physicist of the twentieth century.

3. Which step in the scientific method involves giving a tentative answer to the problem?
   a. interpreting data
   b. formulating hypothesis
   c. predicting
   d. experimenting

4. Which of the following is a positive impact of technology on society?
   a. pollutes the air
   b. improves industry
   c. alters nature
   d. changes the values of man

5. Suppose you performed an experiment on specific heat of metals but you forgot to record the initial temperature of the metal. Which of the following ways of action would you take?
   a. Present data that are not based on the experiment.
   b. Start over again as soon as you realize your mistake.
   c. Copy the data of the other groups who worked on the same activity.
   d. Continue with the experiment to see if the mistake makes any difference.
6. Which of the following is the application of science?
   a. law
   b. theory
   c. technology
   d. principle

7. To avoid accidents in performing a laboratory activity, you should
   a. ignore the scientific method.
   b. follow precautionary measures.
   c. talk with your friends as you work.
   d. skip the procedures that require the use of breakable materials.

8. All of the following statements describe science EXCEPT one. Which is it?
   a. It is a logical way of thinking.
   b. It seeks to discover the truth about events.
   c. It is a body of knowledge that could not be questioned.
   d. It is a search for order in many different areas on nature.

9. Below are the processes of the scientific method. Arrange these steps chronologically.
   a. make predictions
   b. formulate hypothesis
   c. identify and state the problem
   d. accept hypothesis or theory conditionally
   e. gather observations, facts, and data
   f. test predictions by experiments
   g. pass all tests / fail all tests completely or partially

10. Classify whether each item represents technology or pure science.
    • improvised Boyle’s Law apparatus
    • improved procedure on determining the relative density of solids
    • the density of water is 1 g/cc
    • devices for measuring length
    • mass is the quantity of matter
Appendix ‘F’

Post-Training Interview

I. Rubric One : Trainees Perception about the Programme

1. Now, Can you tell us about yourself as an ESP practitioner?
2. How do you rate your experience in ESP in-service teacher training programme?
3. Do you think that the ESPTT programme has met your real needs?
4. What are the main changes you would like to be incorporated in your ESP in-service teacher training programme?
5. What are the main components you would like to add to ESP in-service teacher training programme?
6. Any other comments, would you like to add about the ESPTT Programme?

II. Rubric Two : Trainees Perceptions about their Professional Development

1. What can you say about acquiring a basic knowledge in physics the science or the field which is far from your of study, i.e., the literary stream?
2. How do you describe the changes, if any, in your teaching practices as related to your participation in ESP in-service teacher training programme?
3. Briefly describe how do you manage now your classes?
4. Briefly describe how do you now evaluate and assess your students’ achievements?
5. Now can you say that you have a specific methodology to follow while teaching ESP?
6. After finishing the ESPTT programme, would you like to list the set of elements which have the greatest influence on your teaching, besides your students learning?
7. As far as you professional growth is concerned, how do you compare yourself now with the past?
8. Should teachers continually endeavor to improve classroom performance?
Answer the following questions.

1. Which of the following fields of study is a physical science?
   a. biology
   b. botany
   c. zoology
   d. physics

2. When you perform an experiment, what is the next step to do after defining a problem?
   a. gather relevant data
   b. formulate the hypothesis
   c. test the hypothesis
   d. formulate a conclusion

3. Jose saw big crabs crawling on the sand. He wondered where they came from so he started investigating. What scientific attitude did Jose show?
   a. open-mindedness
   b. resourcefulness
   c. curiosity
   d. patience

4. All of the following are positive effects of technology on society EXCEPT one. Which is it?
   a. improves industry
   b. pollutes the environment
   c. gives comfort to man
   d. makes work easier

5. Which of the statements below is a scientific hypothesis?
   a. Energy is the capacity to do work.
b. Physics deals with matter and energy.
c. The higher the temperature of the substance the faster its molecules move.
d. Matter is anything that occupies space and has mass.

6. Which of the following steps involves giving an educative guess to the problem?
   a. making predictions
   b. gathering observations
   c. stating the problem
   d. formulating hypothesis

7. Arrange the different processes of the scientific method chronologically
   a. Formulate hypothesis.
   b. Make predictions.
   c. Accept hypothesis or theory conditionally.
   d. Identify and state the problem.
   e. Gather observations, facts, and data.
   f. Pass all tests / fails completely or partially.
   g. Test predictions by experiments.

8. Who formulated the laws of motion?
   a. Sir Isaac Newton
   b. Robert Boyle
   c. Albert Einstein
   d. Benjamin Franklin

9. Who was responsible for the discovery of geothermal energy?
   a. Melecio S. Magno
   b. Christopher Bernido
   c. Arturo P. Alcaraz
   d. Henry Ramos

10. Give 5 scientific attitudes that scientists possess:
    •
    •
    •
    •
    •
Dear students,

You are kindly invited to fill in this questionnaire to provide your teacher with an accurate feedback on his/her teaching performance. Your feedback is, then, an essential element in the ongoing process of assessing and improving teaching within the faculty of exact sciences. Please think carefully before making your judgments.

Thank you in advance for your kind cooperation!

Ms. Nawal MEBITIL
ESPTT Programme Coordinator

Teacher Name:...................... Course: English for Physics
Year: 2013-2014 Semester:..........................

I. Rubric One: Teaching

In general, I found that teacher:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

1. Has communicated class materials clearly
2. Has been well prepared for classes
3. Has organized class time effectively
4. Has stimulated my interest in the subject
5. Has been responsive to students problems

6. Having considered various aspects of your teachers’ performance, how would you rate the teaching overall?
(Circle one grade. Do not circle the description.)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Poor</td>
<td>Poor</td>
<td>Acceptable</td>
<td>Very good</td>
<td>Excellent</td>
</tr>
</tbody>
</table>
II. RUBRIC TWO: COURSE

1. How do you rate the content (topics, skills, etc) of the course?
   1  2  3  4  5
   Not Useful Very Useful

2. How do you rate the course materials (textbook, readings, audio, videos, etc) in this course?
   1  2  3  4  5
   Not Useful Very Useful

3. Which aspects of the course were most useful?
   ..............................................................................................................................
   ..............................................................................................................................
   ..............................................................................................................................

4. Which aspects of the course were least useful?
   ..............................................................................................................................
   ..............................................................................................................................
   ..............................................................................................................................

5. Any suggestions about how the course could be improved?
   ..............................................................................................................................
   ..............................................................................................................................
   ..............................................................................................................................

7. Which aspects of the teaching were most useful?
   ..............................................................................................................................
   ..............................................................................................................................
   ..............................................................................................................................

8. Which aspects of the teaching were least useful?
   ..............................................................................................................................
   ..............................................................................................................................
   ..............................................................................................................................
Seminars: Needs Analysis/ EST Curriculum Development, Design/ Evaluation and Assessment

List of Questions

I. Teachers Situation and Preparation

1. In ESP teaching situation most of the teachers are General English teachers who have been recruited to teach ESP courses. The question then will be: Are they enough prepared to teach ESP? What do they need, i.e., GE teachers need to have to better perform and ESP course?
2. How to bridge the existing gap between the requirements of different situations and the language teachers’ preparation?
3. To which extent providing ESP practitioners by a specialised in-service training may help them function in their target situations?
4. What are the major points which should be addressed carefully in the design of a training programme for ESP/EST teachers?

II. Needs Analysis

1. Keeping in mind that in ESP situation a learner is considered to be the key-parameter, to identify his needs is considered to be the first stone in developing any syllabus. Therefore, how someone can manage the following ingredients: context particularities, learners’ needs, their level of English language proficiency and their field knowledge, to promote
their motivation and hence, open the door for them to have a self-access and autonomy?

2. Believing in the fact that both formal needs assessment methods (questionnaires; Entry test; Self-placement/diagnostic tests; Interviews; Final evaluation/ feedback; Class observation; Self assessment; Teaching and student performance video assessment; Peer review), and informal methods of needs assessment have a significant role in diagnosing situations and identifying our learners’ needs, wants and lacks, I may ask in this case how can we manage those methods in a context where in each single group the number of students exceed 140?

Which one is the best in such a context depending on your experience?

3. As a highly experiences ESP practitioner how do you evaluate my modest EST curriculum I have tried to develop, the one that I sent you last time?

III. ESP/ EST Curriculum Development

1. What are the main elements which should be covered in developing an EST curriculum?
2. What are the key-parameters that play a central role in designing a curriculum?
3. Can someone talk about conducting a needs analysis without paying attention to the environment or context challenges and particularities?
4. How an ESP practitioner may succeed in managing needs alongside situation analyses in the design of an effective EST curriculum?
5. Can we talk about authenticity in terms of content and objectives in the case of language teachers coming from a literary background and who definitely lack a specialized knowledge of the area they are teaching?
6. Do ESP practitioners perform better when acquiring a second field expertise?
7. How an ESP practitioner may manage authenticity alongside specialized translation in EST context to cater for his/her learners’ academic needs?

8. What are the main implications you may offer us (the novice) aiming at developing a curriculum for physics students based on a very long years of teaching experience?
Appendix ‘J’
Pre-Training Self-Access Materials

Trainees First Interview (R01)

I. Rubric One: Trainees Profile and Preparation

1. Can you tell us about yourself and your background as a language teacher first, then as an ESP practitioner?

I am XXXXXXX, a PHD student of ESP, I HAVE taught at the middle school, English for psychology, English for law and political sciences and I am actually a full time teacher of business English at the preparatory school of economics and commercial sciences.

What is your area of expertise? ESP, Business English

2. Have you gained any further qualification in ESP Teaching since being awarded or accomplished your Magister? If yes, please state which?

No further qualification is gained after accomplishing my magister

3. Have you undergone any specialized training in ESP before?

I have undergone a theoretical training of ESP, the main courses were discourse variation, ESP, needs analysis, discourse analysis, methodology, English for science and technology and the FOS

4. Do you need any further training in this area of research?

Of course, we still needs training as we have just the theoretical one

5. Does the English department offer any in-service training or professional development courses on this issue, i.e., teaching EST to teachers?

No training is provided
6. Do you know of any other providers, institutions mainly offering courses in this field?

**NO institutions are found in our Algeria context**

7. What do you think of your preparation as a language teacher?

As a language teacher we are prepared to teach general English and we still lack the specialized knowledge as far as the target discourse community.

8. Apart from the English department, have you taught before at the physics department or at any other EST context?

No

9. Do you think that your theoretical training had prepared you for that situation, i.e., teaching ESP in real context?

It depends on some field of ESP teaching English for social sciences.

II. ESP Teaching/ Learning Situation

1. As a language teacher could you list please the set of difficulties you encounter in ESP context?

Lack of practical training,
Lack of specialized knowledge,
Lack of motivation of learners,
Lack of pedagogical materials as the ESP finds himself in situation relying on himself to adapt his own materials

2. How did you plan to overcome those obstacles?

- Very often I use some modified materials according to the learners’ language proficiency to motivate them; Sometimes authentic one to raise the learners’ awareness to real life materials;
- Collaboration with the subject specialist to understand the subject knowledge

3. How do you describe your role as ESP teacher?

Materials writer, knowledge provider, syllabus and source designer, evaluator.

4. Would you like to list the set of elements which have the greatest influence on your teaching, besides your students learning?
- The psychological factors such as Learners’ Motivation and awareness.
- The methodological factor: the teaching time, the schedule of the course, evaluation and assessment indicated by the department.

5. Describe, briefly, how do you manage your classes? Time, course materials.
   By Devoting time to warm up activities, guiding and helping them through the implementation of learning strategies, using group work sometimes to motivate them.

6. Describe, briefly, how do you evaluate and assess your students’ achievements?
   Placement test at the beginning of the semester, proficiency at the middle of the semester so see how well the THE COURSE IS ACHIEVED EVALUATION TEST AT THE END TO ASSESS THE LEARNERS’s achievement.

7. Is there any specific methodology to follow while teaching ESP?
   No, it’s similar to that of teaching general English.

8. What are your main needs as an ESP teacher? Specialized knowledge and practical training.

III. Trainees Attitudes and Expectations at the Physics Department

1. Is there any gap between the literary streams your background and the scientific stream where you are supposed to start a new experience?
   Yes, a great gap when teaching scientific streams specially when using content-based materials.

2. What do you expect from/ the experience of being appointed at the physics department as ESP teacher?
   To be able to teach at least general physics-based topics.

3. How could you, then, describe your first attitude?
   Being trained as a general language teacher and the complete absence of training may lead me to inability to better
classroom management and coping with the learners’ needs and requirements

4. To which extent do you think that the lack of specialized knowledge in physics would have a negative impact on your teaching performance?

It has a negative effect on the teaching and learning process. If the teacher himself is not able to understand the specialized and semi-specialized terminology, this leads to inappropriate selection of the teaching materials and at the same time he won’t be able to adapt it according to the learners’ language proficiency.

Teacher maybe faced with learners’ questions as far as the terminology

IV. Trainees Future Prospects/ ESP teaching Suggested Remedies

1. According to you, what makes a good teacher?

A good teacher is the one who is able to train learners to become communicatively competent in the target language;

this is done through needs analysis, choosing appropriate syllabus, design courses and providing enjoyable activities

2. How can novice develop or acquire these skills and qualities?

By a continuous training, I mean pre- in and post service training

3. What makes professional development effective?

Practical training, reflective teaching

And not effective? Focusing on the traditional way of teaching

4. What professional development strategies can be used to meet your needs as ESP teacher? It seems to be the same !!!!

5. What are the main changes you would like to be incorporated in your initial preparation at both graduate and postgraduate studies as a language instructor?

Training in ESP context; evaluation of course and assessment of the learners

6. According to you, who would be the responsible for the organization of ESP practical training courses to better overcome the absence of a specialized ESP teaching methodology?

Both the English department and the subject one
7. What are the main areas you wish the ESP in-service teacher training programme covers?

Strategies to acquire content-based knowledge, teaching specialized terminology, analyzing the learners’ needs, materials adaptation and writing.

Trainees First Interview (R7)

I. Rubric One: Trainees Profile and Preparation

1. Can you tell us about yourself and your background as a language teacher first, then as an ESP practitioner?

I am a full time teacher at the English department. I hold a magister in ESP and I am enrolled in my second year doctorate level. I have worked as a secondary school as a teacher of English for three years. I taught ESP to many specialties including business and IT contexts.

2. What is your area of expertise?

English for Specific Purposes and English for Computer Science.

3. Have you gained any further qualification in ESP Teaching since being awarded or accomplished your Magister? If yes, please state which? No

4. Have you undergone any specialized training in ESP before?

No

5. Do you need any further training in this area of research?

Sure, I need.

6. Does the English department offer any in-service training or professional development courses on this issue, i.e., teaching EST to teachers? No

7. Do you know of any other providers, institutions mainly offering courses in this field? No

8. What do you think of your preparation as a language teacher?

A lot is needed to claim that I am a real language teacher.

9. Apart from the English department, have you taught before at the physics department or at any other EST context?

Yes, I have worked as a part-time teacher in the computing science department.
10. Do you think that your theoretical training had prepared you for that situation, i.e., teaching ESP in real context? 
   We have been prepared to teach ESP but as we all know teaching is not an easy task since any language teacher needs to gain day-to-day knowledge which could be achieved through research.

II. ESP Teaching/ Learning Situation

1. As a language teacher could you list please the set of difficulties you encounter in ESP context?  
   According to me, we have two categories of problems; problems related to administration I may call them external problems and others related to the language teacher himself and these are the internal difficulties. For the former, our course is often scheduled as a last course of the day and students often escape. Taking in this case the Computing science department, there is a huge number of students and to monitor them is almost impossible. In almost all our departments, there is no placement test, then, the logical result is to have those heterogeneous groups which add extra problems to the language teachers. The lack of motivation is the shared feature.

2. How did you plan to overcome those obstacles? 
   I use to rely on my own experience. We have been taught at the magister level Technical Writing. I am familiar then with this area of research. I will try to focus on as my students’ needs to develop their writing skills.

3. How do you describe your role as ESP teacher? 
   We have learned that an ESP teacher needs to perform 5 different roles: teacher, designer, collaborator, researcher, and evaluator. But in our context we may add another role is that of the learner. We need to learn a set of terminology and acquire a basic knowledge of the field we are teaching then we transmit this knowledge to our students.
4. Would you like to list the set of elements which have the greatest influence on your teaching, besides your students learning?
   Creating a friendly environment where both students and the teacher share responsibilities. They are all responsible for their own teaching/learning. No one is better and no one is the primary knower of the fields: language and specialty.
5. Describe, briefly, how do you manage your classes?
   As I have told you share roles and responsibilities.

6. Describe, briefly, how do you evaluate and assess your students’ achievements?
   In our context we don’t have an entry test to evaluate their levels. Nevertheless, we are still able to evaluate this latter through asking their assistance, or the assistance of their subject specialists to determine the kind of the knowledge they are supposed to be taught. We do have also exit test or achievement tests at the end of each semester.
7. Is there any specific methodology to follow while teaching ESP?
   No.
8. What are your main needs as an ESP teacher? Technical skills? Reflective practice? Specialized knowledge? Other?
   There are a lot. I may summarize them in two points: I need to be familiar with the field that I am teaching and I need to know how to manage effectively my classes.

III. Trainees Attitudes and Expectations at the Physics Department

1. Is there any gap between the literary streams your background and the scientific stream where you are supposed to start a new experience?
   There is a gap. As language teachers, we are not familiar with the technical terms used in those specific contexts.
2. What do you expect from/ the experience of being appointed at the physics department as ESP teacher?
   Lot of work and lot of preparation will be needed during this period.
3. How could you, then, describe your first attitude?
   Most researchers agree that hostility towards science and technology exists but in my case I think that I will benefit
from my experience as a language teacher at the computing science department.

4. To which extent you think that the lack of specialized knowledge in physics would have a negative impact on your teaching performance?

It will have a negative impact but I am fully aware that my task is to teach English not physics. Then, I will try to manage everything based on this idea.

IV. Trainees Future Prospects/ ESP teaching Suggested Remedies

1. According to you, what makes a good teacher?

According to me, a good teacher is someone who is able to manage his situation which means to respond effectively to his learners needs without forgetting that he is a language teacher. A good teacher is the one who can manage effectively his classes. He is also the one who tries to benefit from others experiences and who integrates ICT as a facilitating tool in his context.

2. How can novice develop or acquire these skills and qualities?

Playing the role of the researcher.

3. What makes professional development effective? And not effective?

We can’t say that a professional development is not effective. It has been always effective. All what we need is to stay updated about new researches, new methods, new tools which could be used in our field of interest.

4. What professional development strategies can be used to meet your needs as ESP teacher?

Keep in touch with recent researches.

5. What are the main changes you would like to be incorporated in your initial preparation at both graduate and postgraduate studies as a language instructor?

I would like to insist on the idea of team-teaching which means that both language teachers and a number of subject specialists from different fields of research present together their courses at both graduate and post-graduate levels.

6. According to you, who would be the responsible for the organization of ESP practical training courses to better overcome the absence of a specialized ESP teaching methodology?
The English department.
7. What are the main areas you wish the ESP in-service teacher training programme covers?
   Specialized knowledge, needs analysis, classroom management, and course and syllabus design.
Respondent One

I. Rubric One : Trainees Perception about the Programme

1. How do you rate your experience in ESP in-service teacher training programme?

I find the training useful as it bridges the gaps of the theoretical one especially that of acquiring specialized knowledge of the field of physics and reflective teaching.

2. Do you think that the ESP Teacher Training programme has met your real needs?

Though we have in service training but I still consider myself as novice as I still have DIFFICULTIES

3. What are the main changes you would like to be incorporated in your ESP in-service teacher training programme?

A practical way of incorporating culture in ESP teaching
Socializing in ESP context

4. What are the main components you would like to add to ESP in-service teacher training programme?

- Evaluation and assessment in ESP
- PRACTICAL ways of designing syllabuses

5. Any other comments, would you like to add about the ESPTT Programme? NO

II. Rubric Two : Trainees Perceptions about their Professional Development

1. What can you say about acquiring a basic knowledge in physics the science or the field which is far from your of study, i.e., the literary stream?
It s of great importance to have knowledge of the field of study however, it is not an easy tasks since we find ourselves facing some subject matters in which the students are more familiar with. In other words, the ESP teachers make efforts to have background knowledge about the topic. This may result on too much questions about the content rather than the language

2. How do you describe the changes, if any, in your teaching practices as related to your participation in ESP in-service teacher training programme?

After the training session, I use reflective teaching, though not in the formal way.

The use of some strategies of culture integrated ESP teaching

3. Briefly describe how do you manage now your classes?

I manage my class through the use of three stages. The 1st stage is used as warm up (the introduction to the topic). The 2nd stage, on the other hand, is used for text analysis, for instance. The 3rd stage is designed to which the students are required to give conclusions and remarks as far as the theme.

4. Briefly describe how do you now evaluate and assess your students’ achievements?

I use three tests for the evaluation of the students’ achievement.
Placement test to evaluate their levels at the beginning of the year, an achievement one to see whether of objectives of the course are attained and the final one at the end of the year.

5. Now can you say that you have a specific methodology to follow while teaching ESP?

I can say that I have developed – at a certain level- my methodology as a novice; my aim is to simplify
knowledge searching always for effective strategies and methods for language learning.

6. After finishing the ESPTT programme, would you like to list the set of elements which have the greatest influence on your teaching, besides your students learning?

There are some seminars which are of great importance such acquiring specialized knowledge, teaching writing, reflective teaching, whereas others fail to achieve our needs as there is no relation with the objectives as far as ESP teaching

7. As far as you professional growth is concerned, how do you compare yourself now with the past?

Of course there is a professional growth especially in some domains which are fundamentally based on practical training rather than the theoretical one

8. How have you evolved as ESP practitioner after almost achieving the end of the course/ programme?

We are at a certain extent able to:
Analyzing learners’ needs
Design ESP courses
Understanding content speciality

9. Should teachers continually endeavor to improve classroom performance?

Yes, they should use an ongoing process of teaching, evaluating, checking the weaknesses and providing remedies

********************************************************************************************

Respondent 7

III. Rubric One : Trainees Perception about the Programme

6. How do you rate your experience in ESP in-service teacher training programme?

I have attended a set of seminars and conferences throughout Algeria in which the majority of participants either tackle theories or copy-paste others’ works. I was not satisfied. Apart from meeting a number of researchers that I am really
proud of knowing them and having the certificate of attendance or participation it was just a waste of time! I thought that this training will be same just repeating theories and others’ studies the things that we don’t need in fact but I was surprised with the efforts made by the training coordinator, the trainers’ team who are real ESP experts. We have learned lot. We have enjoyed everything even the coffee-breaks.

7. Do you think that the ESPTT programme has met your real needs?
   The training coordinator succeeded in developing a programme that really meets our needs as ESP practitioners. We have asked her to include modules such as basic physics, needs analysis approaches to ESP teaching and they were all included in the training.

8. What are the main changes you would like to be incorporated in your ESP in-service teacher training programme?
   The form may be “from an intensive course” to “a regular course”.

9. What are the main components you would like to add to ESP in-service teacher training programme?
   The integration of ICT, and the use of SPSS.

10. Any other comments, would you like to add about the ESPTT Programme?

   We should thank all the staff I mean the trainers who participated in the training and as I said before regular courses will be useful for any language teacher who wishes to be an ESP practitioner.

IV. Rubric Two: Trainees Perceptions about their Professional Development

10. What can you say about acquiring a basic knowledge in physics the science or the field which is far from your of study, i.e., the literary stream?
In the case, we lack the appropriate knowledge we will face difficulties. Then, to be trained in physics will reduce, to some extent, those issues.

11. How do you describe the changes, if any, in your teaching practices as related to your participation in ESP in-service teacher training programme?
   Positive changes of course. We have learned how to develop an effective curriculum, how to design needs analysis and these are the standing points in ESP that any teacher should be aware of.

12. Briefly describe how do you manage now your classes?
   Before, it was a difficult task for me. After the end of the training and having consolidating the set of competences we have acquired earlier. Classroom management becomes easy for us. We have learned that motivation is essential in ESP but it is not the only central point in ESP classroom as the course should revolve a set if steps such as needs analysis, materials design, implementation and conduct of the course: introducing to the course, involving students in doing tasks and sharing experiences.

13. Briefly describe how do you now evaluate and assess your students’ achievements?
   As a team we have decided to mark our students depending on their participation, attendance. In addition to, their marks of final examinations and tests. For the assessment, extra teaching hours were devoted to enhance students’ level of language for those who wish to do so.

14. Now can you say that you have a specific methodology to follow while teaching ESP?
   Yes, eclecticism was the key to ESP teaching. We have lot of approaches and methods available and as teachers we can either chose one or make use of an eclectic approach.

15. After finishing the ESPTT programme, would you like to list the set of elements which have the greatest influence on your teaching, besides your students learning?
• Availability of materials;
• Teachers positive attitude;
• Learners’ motivation;
• Team teaching.

16. As far as you professional growth is concerned, how do you compare yourself now with the past?
In the pre training phase, I wished that in this course we can translate theory into practice and we have gained this. I was afraid before starting my career in the physics department and now after accomplishing the training sessions which have take our needs into consideration I have a full command of my classes and I am no more afraid.

17. Should teachers continually endeavor to improve classroom performance?
Teachers who won’t seek development, they don’t deserve to be called teachers. Today, with the introduction of ICT, internet, and all those facilitating tools what we need is just o look for day-to-day update. We need to update our skills, knowledge and performance, as well.
**APPENDIX ‘M’**

SAMPLE OF ESP IN-SERVICE TEACHER TRAINING PROGRAMME REVIEW CHECKLIST ANSWERS

**Instructions:**
Dear professor/ Sir/ Madame,

The researcher is conducting a study for the PhD degree. This study is concerned with designing and implementing a suggested program for developing the teaching performance of ESP teachers at the Faculty of Exact Sciences of Tlemcen University, ALGERIA.

You are kindly requested to read the sample of the program and the procedures suggested in the trainer's manual and give your opinion.

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Towards Enhancing ESP Practitioners Professional Qualifications through Implementing In-Service Teacher Training Programme: An Action Research on the Newly Appointed ESP Practitioners at the Physics Department of AbouBekrBelkaid University, TLEMCEM</th>
</tr>
</thead>
</table>
| Discipline    | Research project submitted as a partial fulfillment of the degree of ‘Doctorate’ in ESP  
English for Specific Purposes, English for Physics. |
| Project Coordinator | Ms.Nawal MEBITIL |

**Overview** (Please rate each item by typing letter x in the appropriate box)

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Avg.</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The overview of the programme is clear, specific and relevant.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The objectives of the programme are well established.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The components of the programme are relevant to teachers needs and then to the work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The objectives of each module are clear and relevant.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The tasks of each module are relevant.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization of programme sessions consisting of seminars presented by trainers and workshop monitored by trainees’ participation and feedback is relevant to the overall aim of the work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The programme structure; basic knowledge in Physics and sciences, Professional skills, Methodology, Materials satisfies the academic standards.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time allotted for the programme, i.e., number of weeks is adequate/sufficient.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Depends on the teachers
<table>
<thead>
<tr>
<th></th>
<th>Sufficient time allotted to each component, i.e., basic knowledge in Physics and sciences, Professional skills, Methodology, Materials</th>
<th>Depends on the teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Pre-reading materials are appropriate and relevant to the work.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Testing tools; tests, checklists, interview, developed syllabus, developed course are appropriate to the work.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The choice of the Staff including local trainers and foreigners is relevant to the work.</td>
<td></td>
</tr>
</tbody>
</table>

**Comments**

See specific comments on the texts

**Suggestions for improvement**

See specific comments on the texts


316
• Ibbotson, M. (……). Cambridge English for Engineering. Cambridge: Cambridge University Press.


• Mager, R.F. (1962). *Objective Preparing for Programmed Instruction*. Belmont, California: Fearon,


Résumé en Français:

Le fait de la formation des enseignants «aspect négligé» est considéré comme un pré-requis pour une prestation de cours dite efficace et efficiente, de l’Anglais comme langue de spécialité (ESP); sur ce, le présent travail se définit comme un appel d’urgence à l’absence de cette formation dans nos institutions universitaires Algériennes. De ce fait, l’installation de spécialistes en ESP comme nouveaux recrus au département de physique, avec un programme de formation des enseignants spécialisés, basé sur des séminaires et des ateliers de performance, semblent être plus que nécessaire et important dans la promotion et le développement de nos enseignants-apprenants en situation de langue Anglaise à objectif spécifique.

Mots-Clés:
Langue de spécialité, Enseignant Universitaire, Formation, Qualifications, Situation.

Summary in English

Admitting the fact that teacher training ‘the neglected-aspect’ is regarded as a pre-requisite in delivering effective and efficient ESP courses; the present work sets itself as an urgent response to the absence of this latter at the Algerian institutions. Providing, then, the newly recruited ESP practitioners at the physics department with a specialised in-service ESP teacher training programme in a form of seminars and workshops is believed to be of worthy significance.

Key-words:
ESP, Teacher, Training, Qualifications, Situation.
Thesis Summary

It is widely acknowledged that teaching quality, and then, teachers’ professional growth should be at the heart of any educational reform. Today most world institutions, including universities, are continuously looking for ways to improve their teachers’ qualifications. In this regard, teaching/learning performance for them means to be a highly qualified teacher who is well-equipped with a set of competencies, and who is trained to handle different situations and manage his or her classes well. He is required to be an active member in the teaching community where it is supposed that he will contribute to improving his learners’ achievements in a wide range of areas. In this dissertation the focus is mainly placed upon preparing the teacher to be fully involved in teaching English for specific purposes.

As the title of the current work suggests, the study attempts to enhance ESP practitioners’ professional qualifications to respond positively to the demands of the Algerian teaching/learning situation. It is recognized that teachers’ preparations, besides their qualifications, entail issues which are not exclusive to Algeria. Teachers around the world face a set of obstacles which prevent them generally from functioning adequately in their target situation. Regardless of this, any newly appointed teacher is supposed to have enough knowledge, preparation, skills and motivation to start his long journey in the land of instruction. Nevertheless those fresh teachers, in most cases, are in great need of receiving real assistance, novel ideas and thorough training. Consequently, the actual study addresses this last point, i.e., training the newly recruited ESP teachers in the physics department of Tlemcen University in the hope of better coping with the expectations of their learners.
Therefore, this chapter tries to provide the reader with a comprehensive overview of this research study. To achieve this end, the researcher has started by locating this research work within its theoretical framework where the following aspects have been tackled: background to the study, statement of the problem, purpose behind choosing this area of research and hence, this issue. Moreover, it is essential to state the pertinent research questions in order to set a context for the main hypothesis. To explore the possible contribution of this particular research project to the general field of teaching and learning English for specific purposes and teachers’ preparation is important in this first part of the work. Of course, delimitations of the study must also be made explicit. To conclude, the researcher has also provided the reader with an outline of the thesis structure. This has been mainly done to facilitate the readers’ journey through this work.

Based on the findings of the research work which is entitled “An Exploration of the Main Difficulties, Challenges and Requirements of the ESP Teaching Situation in Algeria: the Case of ESP Teachers at Abou-Bekr Belkaid University, Tlemcen” that has been broadly carried out by the researcher during the period (2009-2011), a set of difficulties and preoccupations have been identified at different levels, taking in various dimensions which devolve around the language teacher. That is, the language teacher is considered as a key-parameter in the teaching/learning process.

Accordingly, the most important issues facing our General English language teachers who are recruited to teach ESP courses are as follow:

- Lack of specialised knowledge of the related field of teaching;
- Total absence of ESP teaching methodology in the English department;
- Lack of specialised teacher training programmes at both pre- and in-service levels.

Apparently, the third factor is considered to be the most prominent issue a language teacher may complain about. Teachers’ inadequacy for such a position, i.e., teaching ESP and being *ill-prepared* for the area they are teaching, can be linked to this fact. This view is supported by that of Swales (1985:214) who strongly emphasizes that “one of the constraining factors to this progress is the lack of ‘specialised teacher-training’”. Therefore, this research acts as a response to the main prominent hindrances cited above which need to be urgently dealt with.

Algeria, as in the rest of the globe, endeavours to implement and therefore, develop the use of technical English to insure better communication, as well as easy access to knowledge for students, workers, researchers, etc. At the tertiary level, English is introduced in different curricula in different departments nationwide. The focus may be as a main subject in the English department where students are required to attend the following modules: Literature, Civilization, Linguistics, Phonetics, Oral Expression, Written Expression, TEFL and so forth. Alternatively, English may simply be an additional but ‘compulsory’ module. In the Tlemcen English department, the majority of teachers who are in charge of these courses are full-time teachers who hold either a Magister or Doctorate degree. Part-time teachers can also teach. They often hold a Licence degree in English, and are either first-year or second-year Magister students.
As mentioned above, apart from the English Department, English is also introduced in other departments and it holds the status of a ‘compulsory’ module. Students who belong to one of the following specialties: Mathematics, Physics, Chemistry, Sciences, Engineering, Economics, Political Sciences, are also required to follow ESP courses, depending on their area of research and their needs. Hence different ESP courses are provided nationwide under different labels. The most common ones are: EST ‘English for Science and Technology’, EBE ‘English for Business and Economics’, and ESS ‘English for Social Sciences’. As a result, English as a course module is studied along with other current student modules. The vast majority of these teachers are part-time teachers who are engaged in other situations and who have other duties, besides their permanent jobs such as teaching at other departments. For example, they may be employed by the English Department, or teaching at other levels, or in a secondary or middle school.

The need to learn English is also associated with the need to form language teachers who are able to teach English either for General Purposes or for Specific Purposes. At Tlemcen University, the situation under investigation, where a rapid growth and expansion has taken place in recent years, English is taught in a separate department as a main subject. In this department, and after accomplishing either four years (in the classical system) or three years (in the LMD system) students are rewarded with a licence degree in English. With this they are allowed to work as English teachers. Hence, once they get a position as English language teachers they hold the status of EFL teachers. In practice, during their general training, they receive no guidance on ESP teaching methodology. Therefore, one may say that an ESP teacher was originally a General English teacher who was
recruited to teach ESP courses, and by which added skills he can apply for positions in different departments.

This research work begins with the premise that ESP is faced with a lot of contextual and pedagogical hindrances even though there is worldwide acknowledgment of the importance of English and even though ESP is one of the most prominent fields of ELT. Two features of ESP teaching are especially notable at Tlemcen. Firstly, the time which is allotted for English teaching is only a period of one and a half hours per week, and is often timetabled as the last course of the day, or even the last course of the week. The second common feature is the nature of the job: language teachers, in most cases, are only part-time practitioners.

In the Physics department English is introduced as a compulsory module. Students are required to sit for EST classes and sit for examinations at the end of each semester, besides tests throughout the academic year. Learners are also invited to submit works and present papers during the English course. With the new educational reforms of 2013 provided by the ministry of higher education and scientific research, English has been introduced at the graduate level, or more precisely in the first-year Sciences and techniques field within the physics department. Trainees are supposed to attend the EST lecture once a week for a period of one and a half hours.

Apart from the graduate level, English is taught also at the Master and Doctorate levels. While undertaking the EST classes, Physics’ students are supposed to learn English in meaningful contexts. To be instructed in English using themes of sciences, techniques and physics is regarded as the focus of the faculty and its dean to promote learners’ attendance, motivation and hence, achievements. This could be mainly explained by the fact that English starts to be the primary technical language in the faculty of Exact Sciences, and especially in
the Physics department where almost all the data trainees may need to further their studies are provided in the English language.

The core of the current work is the language teachers in the Tlemcen physics department. It is therefore pertinent to note that before the reforms of 2013 subject specialists were the only instructors who had been asked to run ESP courses. Those field specialists are, in most cases, expert in the area of sciences in general and physics in particular. They have earned their degrees from either American or British universities, which means that they have been taught their speciality in English. This would explain the fact that they have mastered the terminology of their field and which most students are also supposed to have a full command of. As a moderate attempt to fulfil the current research work, the researcher has organised a series of meetings with the head of the physics department and the dean of the faculty of exact sciences. The aim was to explain the main rationale of the project and to negotiate recruiting part-time language teachers as ESP instructors to carry on the work.

Evaluation and assessment only have real value as processes after metrics for determining progress, success or failure in any programme have been settled upon. In this vein, our central issue is teaching and learning a foreign language, but also more narrowly, for specific purposes. While trying to assess the progress of ESP as a principal field of ELT, it is common to find that most researchers who are concerned with rating the growth of ESP instruction relate the failure of ESP courses to the lack of teacher training. According to them, being *ill-prepared* in the area they are engaged in may constitute the first reason for such a failure. At a lower level, they relate course collapse to the idea that ESP teaching is regarded as being an
inherently difficult task for those who lack serious ESP teacher-training.

For the vast majority of language teachers, the shift from a general language environment to a more specific one is their first nightmare. This could be clearly seen in areas where sciences are promoted. In physics, chemistry, mathematics, language teachers are supposed to be engaged with adult students who, more or less, are master of their field of study. It is presumed that what these students require is the ability of their ESP instructors to respond constructively to their needs. Among those requirements, teachers are invited to answer questions related to the terminology of the field. This latter has been considered as a serious issue for most language teachers. To lack both knowledge of the field, and in-service teacher preparation could have a negative psychological effect on teachers. One outcome might be teachers’ hostility towards students’ field of specialism and a professional failure to properly monitor their classes. Most teachers, in this case, turn towards general English and grammar to disguise the gap between their own knowledge and preparation and their learners’ expectations.

A better professional development outcome could be achieved through implementing what is theoretically known as an *in-service teacher training programme*. This latter can be achieved by attending workshops and seminars through which ESP teachers are, more or less, assumed to cater for their own needs. Therefore the main aim of this study is to help ESP teachers who are already engaged in ESP teaching situations acquire a second field of expertise. That is, they have been and will be assisted to acquire specialised knowledge depending on the field they are taking part in. To meet this end, a set of seminars have been organised regularly and followed by a set of workshops to discuss teacher situations as insight gradually develops.
As a matter of fact, those seminars and workshops have not been limited solely to the acquisition a specialised knowledge but have also led to the improvement of the teachers’ professional skills for the areas in which they are teaching. This has been achieved through providing training for those teachers in other areas such as: ICT, ESP syllabus and curriculum design, ESP assessment, supervision and management. In summary, inclusive objectives of this research work are to help teachers to function more adequately in their target situation, i.e., physics, to respond positively to the demands of the faculty, and to satisfy the learners’ expectations.

To achieve the aforementioned objectives, and for better teaching/learning professionalization, our research enquiries mainly fall on the following research questions:

- Does the theoretical training our ESP teachers have undergone while studying meet their professional needs?
- Do our ESP practitioners perform better when acquiring a second field of expertise?
- To what extent does providing ESP practitioners with specialised in-service training help them function effectively in their target situation?

In hope to reach more or less adequate answers to the three above mentioned questions, the following hypotheses have been established:

1. Though our ESP teachers have undergone limited theoretical training in ESP, it still remains not enough for them as it does not meet their professional needs.
2. Acquiring a second field expertise is believed to be of value for our ESP practitioners. It may help them perform better while taking part in specialised language environments.

3. For ESP practitioners, to receive a range of specialised in-service training in different areas, and adjusted for their level of skill, may help them to function effectively in their target situations.

The actual project acts as continuation of research work the researcher conducted a number of years ago. The earlier work was a part of her magister thesis. The present study is an urgent response to the ESP teachers’ difficulties identified in that earlier study. The investigator has tried to focus on the organisation and delivery of a set of seminars and workshops presented for the benefit of ESP teachers at the faculty of Exact Sciences. In this sense, it is believed that is the study will be of great help to those teachers. The opportunity to find ways to cross a bridge between GE teaching and ESP teaching while acquiring a second field of expertise is one of the most important motives behind this investigation. To plan and organise in-service teacher training courses is known to help other teachers besides project managers and university researchers who conduct similar studies in their fields of interest. The research will assist both prospective and current teachers to reflect carefully upon the appropriate preparation they may need, and the techniques they should resort to insure ongoing professional development.

As a final consideration, this study has significance due to its potential contribution in those debates focusing mainly on understanding the real needs of those newly recruited ESP teachers in
the Algerian context where French still mainly dominates all fields of language specialization. Looking for a better professionalization of our teachers, as well as better levels of achievement by our learners cannot be achieved unless a programme of such a nature is implemented to fit our local context, supported, discussed, reflected upon and carefully examined.

This research work has been divided into six chapters. This chapter is introductory. The second chapter explores the related literature about ESP and teacher training. The third chapter presents and describes the methodology that was used to conduct this study. It details the population of the study, the research design, and procedures that have been used while collecting and then analyzing the available data.

The fourth chapter attempts to analyse and interpret data which have been collected with a view to answering the primary research questions. The fifth chapter summarizes the findings of the research work while also making its limitations explicit, and points to future research. The last one acts as a concluding chapter.

Results drawn from various tools and resources showed that there were a positive correlation between trainees’ needs and the delivery of the training that aimed to enhance their professional qualifications as a moderate path towards responding positively to their learners’ expectations.

The first research question was proposed to check whether the theoretical training informants have undergone during their magister preparation meet their needs or not. Results showed that trainees still lack consolidation of a number of areas. Tests results confirmed this
view, the majority of participants scored low marks which denoted that they need to acquire a basic knowledge in physics and sciences. Trainees also claimed that whenever they were appointed in a new environment they were obliged to reinvestigate the field to form a general overview and to search for possible ways to reduce the number of issues they often face.

As for the second question, it aimed to check whether ESP practitioners perform better when acquiring a second field of expertise or not. Data analysis revealed that having a basic knowledge of a specific field is a pre-requisite in ESP context. This facilitates the teaching/learning process. After attending the training sessions, teachers admitted that they consider their selves to be real ESP practitioners as they can tackle different topics students are familiar with, comment on a number of issues and open further debates aiming to enhance their level of language proficiency while tackling topics such as: power, engines, motions, etc.

The last question aimed however, to confirm the idea that providing ESP practitioners with specialised in-service training help them function effectively in their target situation. Data derived from various sources displayed that attending the seminars and performing all the tasks helped trainees in their teaching careers. Nevertheless, this does not mean that training is the magic device which brings change to teachers’ situation. As language instructors, they should strive for a continuous development that could be achieved by different means and following a wide range of techniques including most importantly the following specific characteristics: modesty, curiosity, open-mindedness, flexibility and the positive attitude towards all the fields of research.
Ministère de l'enseignement supérieur
et de la recherche scientifique

Université IBN KHALDOUN Tiaret

Dirassat

des Sciences Humaines et Sciences Sociales

Revue académique, périodique spécialisée et approuvée

Laboratoire des études Morphosyntaxiques

Patrimoine – Modernité

Université IBN KHALDOUNE
BP Zaaroura Tiaret -1400
www.Uni-Tiaret.dz

ISSN :5723-2011  
N°11- Decembre 2013
Ministère de l'enseignement supérieur
et de la recherche scientifique

Université IBN KHALDOUN Tiaret

Virassat

des Sciences Humaines et Sciences Sociales

Revue académique, périodique spécialisée et approuvée

Laboratoire des études Morphosyntaxiques

Patrimoine – Modernité

Université IBN KHALDOUNE
BP Zaaroura Tiaret -1400
www.Uni-Tiaret.dz

ISSN : 5723-2011

N°11- Décembre 2013
ESP Curriculum Design:
An Attempt towards Teaching Professionalization
Ms. Nawal Melbitil- Faculty of Letters and Languages
Mascara University

Abstract

Needs analysis is believed to be the core stone in the teaching/learning process. Its importance is reflected in students’ participation in, almost, all stages of the educational process. At this level, it should be mentioned that to know about our learners’ aims, their wants and lacks, besides, their expectations can be regarded as the starting point for the design of, more or less, an efficient curriculum.

However, it is not only the learners who play a central role in developing a curriculum, but it goes even beyond, to reach other factors associated with the design and implementation of language curricula. At this point, situation analysis is, also, needed. The main aim behind the current paper is, therefore, to enlighten the process of developing an English for Specific Purposes curriculum based, fundamentally, on the results of both; needs and situation analyses. The outcomes of observations of ESP students, questionnaires given to the apprentices, and interviews conducted with a number of ESP teachers point out a divergence among learners’ levels of English language proficiency, their needs, wants and future prospects, as well. Based on those results, implications are provided for the design of an ESP curriculum at the level of the Physics department within the faculty of Exact Sciences of TLEMCEEN University, ALGERIA.

Key Words: Needs Analysis, Situation Analysis, ESP curriculum development, Physics students, Teaching Professionalization.

1.1. Introduction

Algeria, as the rest of the globe, endeavours to implement and therefore, develop the use of English to insure better communication, as well as easy access to knowledge for students, workers, researchers and so forth. In the same line of thought, and despite the fact that the language of instruction in Algeria is, still, largely either Arabic or French, Algerian decision-makers who are aware of the vital role played and held by the English language, try to implement its use at all levels of education.

At the tertiary level, English is introduced in different curricula at different departments nationwide, either as a main subject at the English
<table>
<thead>
<tr>
<th>ص</th>
<th>موضوع البحث</th>
<th>اسم الباحث</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>المراجعية والخطاب</td>
<td>أ. د. عبد الخالق مرناش - جامعة تلمسان</td>
</tr>
<tr>
<td>17</td>
<td>نظرية التحليل الأدبي</td>
<td>ن. صبرة بردي - جامعة الشرف.</td>
</tr>
<tr>
<td>30</td>
<td>قراءة في إشكالية التقاطع المعرفي بين الأسلوبية وجمالية النثرية المثلج</td>
<td>أ. ن. بلال أحمد - جامعة ابن حلوان</td>
</tr>
<tr>
<td>38</td>
<td>دلالة الفعل &quot;ضل&quot; في القراءات القرآنية</td>
<td>ن. هبة حنا - جامعة - تلمسان.</td>
</tr>
<tr>
<td>48</td>
<td>قراءة في البنية والتركيب</td>
<td>ن. عائشة عوشاش - جامعة المسيلة.</td>
</tr>
<tr>
<td>59</td>
<td>مظاهر من الفوارق النحوية في القراءات القرآنية وأثرها</td>
<td>ن. سهيلة شحادي - جامعة المسيلة.</td>
</tr>
<tr>
<td>72</td>
<td>شخصية الإسلامي في رواية النداء المخلد لنجيب محفوظ</td>
<td>م. ر. عبد المحسن - جامعة تلمسان. جزائر.</td>
</tr>
<tr>
<td>79</td>
<td>التواصل في سورة التكوين</td>
<td>م. ر. حمادي ليلى - جامعة تلمسان.</td>
</tr>
<tr>
<td>87</td>
<td>الإيقاع بين الشعر والغناء (الموسيقى)</td>
<td>م. ف. سهاد شالي - الجامعة الإفريقية، العقيد أحمد د،</td>
</tr>
<tr>
<td>97</td>
<td>تعليم اللغة العربية لغير الناطقين كما:</td>
<td>م. ف. مروان أم الجني - المركز الوطني للبحث في علم الآثار.</td>
</tr>
<tr>
<td>118</td>
<td>تحليل الكتابات الأثرية الجنبية (في العهد العثماني بمدينة الجزائر)</td>
<td>م. ف. مروان بشير - جامعة مستغام.</td>
</tr>
<tr>
<td>129</td>
<td>المجتمع المدني في الفكر السوسولوجي</td>
<td>م. ف. عبد الهادي - ج. عباشي</td>
</tr>
<tr>
<td>141</td>
<td>تدخل الأمم المتحدة في الشأن الداخلي للدول من أجل حماية حقوق الإنسان</td>
<td>م. ف. عبد الهادي - جامعة مستغام.</td>
</tr>
<tr>
<td></td>
<td>احكام تبلغ الدعوى وفق القانون 08-09</td>
<td>م. ف. عبد الهادي - جامعة مستغام.</td>
</tr>
<tr>
<td>Page</td>
<td>Title</td>
<td>Author(s)</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>156</td>
<td>حتمية انضمام الجزائر إلى منظمة التجارة العالمية</td>
<td>إ. أحمد سعد الدين - جامعة مولود معبيري</td>
</tr>
<tr>
<td>176</td>
<td>الإطار القانوني لتجريم الضرر البيئي أثناء النزاعات المسلحة</td>
<td>أ. زينات أحمد - جامعة تيزي وزو</td>
</tr>
<tr>
<td>191</td>
<td>دور هيئة التحكيم في تحديد المسؤولية المرتبة عن التصادم البحري</td>
<td>بن عصمان جمال - جامعة تلمسان</td>
</tr>
<tr>
<td>219</td>
<td>Pedagogical Materials in business English: A Plea for Intercultural Awareness</td>
<td>Ms. BENABDALLAH Prénom : Awicha</td>
</tr>
<tr>
<td>224</td>
<td>Reasons for Using literary Texts to Algerian EFL Students</td>
<td>Ms. AMARIA Fehaima- University of Tlemcen</td>
</tr>
<tr>
<td>229</td>
<td>ESP Curriculum Design: An Attempt towards Teaching Professionalization</td>
<td>Ms. Nawal Mebitil- Mascara University</td>
</tr>
</tbody>
</table>
Abstract

Needs analysis is believed to be the cornerstone in the teaching/learning process. Its importance is reflected in students’ participation in, almost, all stages of the educational process. At this level, it should be mentioned that to know about our learners’ aims, their wants and lacks, besides, their expectations can be regarded as the starting point for the design of, more or less, an efficient curriculum.

However, it is not only the learners who play a central role in developing a curriculum, but it goes even beyond, to reach other factors associated with the design and implementation of language curricula. At this point, situation analysis is, also, needed. The main aim behind the current paper is, therefore, to enlighten the process of developing an English for Specific Purposes curriculum based, fundamentally, on the results of both; needs and situation analyses. The outcomes of observations of ESP students, questionnaires given to the apprentices, and interviews conducted with a number of ESP teachers point out a divergence among learners’ levels of English language proficiency, their needs, wants and future prospects, as well. Based on those results, implications are provided for the design of an ESP curriculum at the level of the Physics department within the faculty of Exact Sciences of TLEMCE University, ALGERIA.

Key Words: Needs Analysis, Situation Analysis, ESP curriculum development, Physics students, Teaching Professionalization.

1.1. Introduction

Algeria, as the rest of the globe, endeavours to implement and therefore, develop the use of English to insure better communication, as well as easy access to knowledge for students, workers, researchers and so forth. In the same line of thought, and despite the fact that the language of instruction in Algeria is, still, largely either Arabic or French, Algerian decision-makers who are aware of the vital role played and held by the English language, try to implement its use at all levels of education.

At the tertiary level, English is introduced in different curricula at different departments nationwide, either as a main subject at the English
language and literature department or simply, as an additional module but ‘compulsory’ in other departments. Students who belong, then, to one of the following specialties: Mathematics, Physics, Chemistry, Sciences, Engineering, Economics, Political Sciences, etc, are required to follow ESP courses, depending on their area of research and their needs, as well. Hence, different ESP courses are provided nationwide under different labels. The most common ones are: EBE ‘English for Business and Economics’, and ESS ‘English for Social Sciences’, etc.

Joining this idea and as the title of this paper may indicate our current interest will mainly fall on one of the most important sub-branch of ESP which is mainly labelled English for Science and Technology or ‘EST’ for short.

1.2. Key-Terms Definitions

In a modest endeavour to put the current work within an accurate framework a set of key-terms need to be addressed carefully. In this vein, the first concept to be highlighted is: Needs Analysis.

Needs Analysis is believed to be the core stone in the teaching/ learning process. Its importance is reflected in students’ participation in, almost, all stages of the educational process. At this level, it should be mentioned that to know about our learners’ aims, their wants and lacks, besides, their expectations can be regarded as the starting point for the design of, more or less, an efficient curriculum.

Therefore and while reviewing the available literature revolving around NA, it can be stated that it is compulsory to know about learners’ needs such as their objectives, language attitudes, prospects from the course and learning habits in order to design a well-organized program (e.g. Brindley, 1984; Nunan, 1988; Nunan, 1990; Kaur, 2007). Those studies have contributed a lot in equipping teachers, chiefly, those novices with a sound knowledge of those procedures used mainly for the sake of outlining all the possible information about apprentices to enlighten and guide the important key ingredients in any ESP course notably: course design, syllabus design or curriculum development.

However, it is not only the learners who play a central role in developing a curriculum, but it goes even beyond, to reach other factors associated with the design and implementation of language curricula. At this point, Situation Analysis is, also, needed. SA, hence, is believed to be
another essential ingredient and a key-concept which should be tackled carefully.

According to Richard (2001) Situation Analysis is “an analysis of factors in the context of a planned or present curriculum that is made in order to assess their potential impact on the project” (Richards, 2001: 91). Those factors can be related to the context particularities, here, we refer basically to the fact that scientific environments differ from other literary contexts where almost our language teachers, especially those ESP practitioners, come from.

The third key-term which needs to be enlightened is curriculum development. According to scholars like Nunan (1990) Brown (1995), Richards (2001) and others curriculum as a concept is very difficult to define and hence, describe because of the specific characteristics related to this term. In this vein, Brown (1995: 19) describes curriculum development as “a series of activities that contribute to the growth of consensus among staff, faculty, administration and students.” He goes even further to point out that this “series of curriculum activities will provide a framework that helps teachers to accomplish whatever combination of teaching activities is most suitable, i.e., a framework that helps students learn as efficiently and effectively as possible in a given situation”. This could be clearly displayed in the following figure.

![Diagram of Curriculum Development](image)

**Figure1. Curriculum Development adopted from Brown (1995:20)**
On the other hand, Richards (2001: 41) reveals that development is "the range of planning and implementation processes involved in developing or renewing a curriculum". He maintains that the processes should primarily focus on "needs analysis, situational analysis, planning learning outcomes, course organization, selecting and preparing teaching material, providing for effective teaching and evaluation".

1.3. The purpose of the Study

The main aim behind the current paper is, therefore, to enlighten the process of developing an English for Specific Purposes curriculum based, fundamentally, on the results of both; needs and situation analyses. And before all to provide a thorough answer to the following questions: What are the key-parameters that play a central role in designing a curriculum? How an ESP practitioner may succeed in managing needs alongside situation analyses in the design of an effective EST curriculum? What are the main implications one should offer to those language instructors aiming at developing a curriculum for physics students?

1.4. Design of the Study and Data Gathering

In EST situation, our learners are regarded as the corner stone. Our central issue as teachers-researchers, in this regard is, is to learn how to conduct a careful needs analysis. Moreover, to outline their target aims, current circumstances and their future prospects is considered, here, as a must.

In the same line of thought and believing in the worthy insights which one may gather from conducting such Needs Analysis, the researcher has recourse first to observe her classes. Later on, to the use of a questionnaire aiming at getting more, in depth, information about her learners’ wants, lacks and outlooks. Interviews were also conducted with other language instructors.

As a matter of fact, the informants of this study are those apprentices enrolled at the physics department in the faculty of Exact Sciences of Tlemcen University.

After analysing data, the investigator has obtained the following results:
The first element which has been examined is the learners’ level of English language proficiency. As a matter of fact, only few students have an advanced level whereas the majority ranges from beginners to intermediate. As a main comment, it can be stated that even though, the students are intermediate; they often lack motivation and face problems, while undertaking the EST course.

While examining and reflecting about the language being used within the EST classroom, the researcher has noticed that she was obliged to deal with three languages in her classroom for different reasons.

The use of the three languages, i.e., English, French and Arabic can be explained by the fact that students’ who lack a sufficient command of the target language, and who have a low level of language proficiency, obliged in most cases, the researcher to switch either to Arabic or French. This is, of course, to enlighten various ideas she judges to be of significant importance such as explaining some key-terms, giving definitions and dealing with sentence structures.

Depending on both parameters; the learners’ answers provided in the questionnaire besides, the teacher’s observation process the following difficulties have been outlined on the part of the learners:

- Lack of motivation; English is not important for them;
- Low level of language proficiency. Hence, they encounter a set of problems at different levels: Grammar, vocabulary, pronunciation, sentence structure and so forth;
- Lack of appropriate terminology for their fields of study, i.e., physics.

Based on the outlined difficulties, the learners have suggested translation as a main remedial for those issues. To include translation for them may help them express better their ideas, transfer the amount of information they have from their L1 to L2. They have, in fact, mentioned translation from Arabic, or French to English and vice-versa to learn more specialized terms.

To go a step further and apart from including specialized translation in our contexts, it should be revealed that ESP apprentices are already adult learners aiming at achieving a particular target namely; improving their level of English language proficiency which may facilitate for them, later on, different tasks including publication of papers in the target language and taking part in seminars and workshops, etc. In this case, it could be mentioned that, our learners are still claiming about the content provided for them in ESP courses as this latter does not match
their real needs. At this level, I may dare to say that there is a gap between the knowledge afforded and that expected in such context, this may be due to the fact that those language teachers responsible for running such type of courses have no previous specialized training in the area they are currently taking part in.

Students, in this case, have called for a thorough consideration of their wants, lacks and outlooks including fundamentally the following points;

- To design courses based on their real needs;
- To take part in the process of determining the content of the course;
- To provide real-life tasks which may help them function adequately while involved in authentic situations;
- To afford a wide range of tasks aiming at enhancing their level of English language proficiency besides, their motivation.
- In addition to the already mentioned key-element which aims, basically, at including specialized translation within their context.

As an ESP practitioner, I may say that including specialised translation in our scientific context aiming at improving our learners’ level of English language proficiency is considered to be of creditable importance. In EST milieu, translation is no more seen as a separate trend but as an integrated activity, and skill aiming at facilitating the way for our learners to better grasp the content of their courses and, later on, function adequately in their target situations. Specialised translation, in this case, is, therefore, seen as a vocabulary builder tool, a way to mediate culture and an instrument which may help our learners to expand their knowledge and to evaluate and assess their performance, too.

1.5. Conclusion and Implications

Bearing in mind that the current work is just a preliminary study which is still taking place at the level of the physics department of Tlemcen University and after almost discussing the most important results and taking into account the context particularities where the language of instruction in those settings is primarily French and our students faced extra difficulties while undertaking the English course. This latter could be related to their low level of language proficiency. Moreover and due to the typical characteristics of this situation, the language teacher is having additional and heavy duties simply because he/she comes, in most of the cases, from a background that has in no way a relation with sciences and technologies. The following moderate contribution can be considered as my first path towards designing a suitable curriculum for my students based, as it has been already mentioned, on the results of both needs and situation analyses. As a matter of fact, I have tried to cover a set of areas in this program aiming at
motivating students, increasing the number of their attendance and responding positively to their field and their expectations, as well.

Believing in the fact that classes at the physics department are of mixed abilities nature, I have decided to start the courses with a general revision, holding perspective will help students learn how to function adequately in their target setting. In this curriculum and throughout courses the teachers I am working in collaboration with are asked to focus on the four skills notably: reading, writing, listening and speaking. The curriculum is divided into six units each unit covers one area of research related to the apprentices’ specialism for instance: the first unit is devoted to the nature of physics. By the end of this unit, learners will be able to define their speciality to ask questions and to discuss their different points of view. Learners are also invited to provide a translation for a text they have read in English to French and vice-versa. Both audio and video extracts are mainly used hoping to improve students’ ability to listen to native speakers and imitate them.

As a final annotation, I may say that for the sake of maintaining balance between the specific requirements of the scientific context and the expectations of our learners the current curriculum is mainly developed. This latter is still in a need of evaluation and, hence, assessment which will help me later on adjust it and respond positively to those challenges I am currently facing as an ESP instructor working in an EST setting and learning from my students, too.

REFERENCES


Mediterranean Journal of Social Sciences

Vol. 5, No. 20, September 2014

ISSN: 2039-9340 (print)
ISSN: 2039-2117 (online)

About the Journal

Mediterranean Journal of Social Sciences (MJSS) is a double blind peer-reviewed journal, published three times a year, by Mediterranean Center of Social and Educational Research. The journal publishes research papers in the fields of Mediterranean and World Culture, Sociology, Philosophy, Linguistics, Education, History, History of Religions, Anthropology, Statistics, Politics, Laws, Psychology and Economics. MJSS is open for the academic world and research institutes, academic and departmental libraries, graduate students and PhD candidates, academic and non-academic researchers and research teams. Specifically, MJSS is positioned as a vehicle for academics and practitioners to share field research. In addition to scientific studies, we will also consider letters to the editor, guest editorials, and book reviews. Our goal is to provide original, relevant, and timely information from diverse sources; to write and publish with absolute integrity; and to serve as effectively as possible the needs of those involved in all social areas. If your research will help us achieve these goals, we would like to hear from you. MJSS provides immediate open access to its content on the principle that making research freely available to the public supporting a greater global exchange of knowledge. All manuscripts are subject to a double blind peer review by the members of the editorial board who are noted experts in the appropriate subject area.

Editor in Chief, Bidzina Savaneli
University of Georgia, Georgia
# TABLE OF CONTENTS

## Education and Technology

- **The Effectiveness of Special Schools in the Teaching of Children with Learning Disabilities in South Africa**
  - Milford Hove
  - 1903

- **Gender Differences amongst South African Senior Secondary School Learners’ Geometric Thinking Levels**
  - Alex J.K. Mamman, K.J
  - 1908

- **Liberal Humanism in a Transforming Post-Apartheid Curriculum of South Africa: An Introspection**
  - Christopher Rwoodzi
  - 1916

- **The Impact of Teaching Practice Experience in Shaping Pre-Service Teachers’ Professional Identities**
  - Faridah Khaliq
  - 1921

- **The Impact of Face-To-Face Tutorials on College of Education Students: A Case of Unisa’s Ekurhuleni Regional Service Centre**
  - Lesiba Molepo, Hector Mothudi
  - 1928

## Sociology, Psychology and Politics

- **Qur’anic Brevity and Verbosity: What and How?**
  - Mazelen Ibrahim, Abur Haroon Usman, Mohd Akiil Muhamed Ali
  - 1939

- **Imperial Treaties and the Origins of British Colonial Rule in Southern Nigeria, 1860-1890**
  - Annette A. Inyang, Manasseh Eddem Bassey
  - 1946

- **Islamic Faith In Malaysia: Current Issues and Challenges**
  - Engku Ahmad Zaki Engku Alwi, Nor Aini Abu Bakar, Roose Niliawati Subki
  - 1954

- **Through the Lens of a Man: The Portrayal of Female Characters in R.M. Malopo’s Matshoko, Matshoko, a Feminist View**
  - Raymond Botshabele Mongayi
  - 1963

- **Science and Religion in Meta-Perspective – Part I**
  - Herman J. Petersen
  - 1969

- **Valentine v. The Queen: Reflections for the SADC Tribunal**
  - Musawwina Niyayambwa
  - 1980

- **The African National Congress (ANC) and Its Ideological Shifts Over Time: Attempts to Define or Re-Define Its Ideological Identity?**
  - Chaka Twala
  - 1988

- **The Layering of Poverty Attribution among Disadvantaged Groups in the Developing World**
  - Kehinde D. Ige
  - 1993

- **Military Operation as a Response to Terrorism: A Case Study of Malakand Division Pakistan**
  - Wazir Khan Afridi, Musab Yousufi, Musa Khan
  - 2000

- **The Study of Indigenous African Music and Lessons from Ordinary Language Philosophy**
  - Madimbe Geoff Mapaya
  - 2007

- **Community Justice and Juvenile Offender: The Management of an Individual Case with Criminal Slope with Community Involvement**
  - Antonio Iudici, Annunziata Malacchi
  - 2015

- **Determinants of International Migration In Pakistan**
  - Muhammad Farooq, Shahnaz Tanq, Fardous Ghulzar, Farha Ibad Mirza, Farha Riaz
  - 2028
A Comparative Study of the Picture Of Dorian Gray and Its Two Persian Translations in Terms of Cohesive Devices
Elaheh Pirmoradian, Hossein Vahid Dastjardi
Teaching EST in Algeria: Training or Retraining Language Teachers?
Nawel Mobillil
Generative Grammar in Albanian Linguistics
Ejana Mosko
A Tale of Failure: Indigenous Language Radio Broadcasting in Zimbabwe
Memory Mabika, Professor Abiodun Salewu
TAV of Arabic Language Measurement
Harun Baharuddin, Zawawi Ismail, Adelina Asmai, Normale Baharuddin
The Uses of the Latin Gerundive
Leonard Xhanami
The Differences in the Speakers' Perception on Advice Strategies between Iranian Males and Females
Marzieh Rezaie
Lexical Expansion in Marginal Aids: A Study on Translating Cultural Loaded Implicit Meaning
Seyed Ali Reza Shirinzadeh, Tengku Sapura Tengku Mahadi
A Historical Synopsis of some of Mirriam Tlali's Literary Works and Reflections on Black Writing during Apartheid
Theophilus T Mukhuta
History and its Poetic Images in the Poetry of Luljeta Lleshanaku and Yehuda Amichai
Bajrola Shatro (Garni)

Management, Sustainability and Cooperation
Sustainable Development: The Human Rights Approach to Environmental Protection in South Africa
CM van der Bank, Marijoné van der Bank
Rural Governance in South Africa: Is there a Place for Neo-Feudalism in a Democracy?
Sibonginkosi Mazibuko
Green IS Framework for Environmental Sustainability: A Grounded Theory Approach in the South African Banking Sector
Grant R. Howard, Sam Lubbe, Magda Huisman
Bridging the Gap in Human Relations through the Novel: A Reflection on Houenou Kowanou's Ies Enfants de la Poubelle
Irene Udosoro
Photovoltaics – The Neglected Child of the Renewables
Teo Zalar
The Concept of Welfare State in Indonesia as a Strategic Move to Win People Trust Through Economic Sustainability: Good Governance and Bank Conduct on Bank Debt Cancellation Due to Natural Disasters
Rudy Haposan Siahaan, P.L., Rika Fatimah
Land Use Dynamics and Expansion of the Built-Up Area in Benin City, Nigeria
Olayiwola, A. M., Igbavboa, O. E.
South Africa's Application of the Gender Mainstreaming Strategy within the Water Resources Management of Rural Areas: Challenges and Limitations
TM Ramoroka
The Respect for Fundamental in EU as an Eligibility for the Candidate Countries: The Albania Case
Valbona Sanzakharti
The Importance of Age in Development
Sibonginkosi Mazibuko
Teaching EST in Algeria: Training or Retraining Language Teachers?

Nawal Mabtil, Assistant Professor

Department of English Language and Literature, University of Mascara, Faculty of Letters and Languages, Mascara, Algeria
Email: mebtinawal@hotmail.fr

10.5901/mjss.2014.v5n20p2381

Abstract

In this new millennium, learning English to fulfill communicative purposes becomes a worldwide concern. and Algeria is one of the interesting nations in developing the status of English regarded as a key to scientific and technological development. To meet such a challenge, the educational authority in Algeria implements the use of English mainly at all tertiary-level institutions. ESP courses are provided in different departments to meet learners’ specific objectives both academic and occupational. In this respect, teaching English for Specific Purposes (ESP) at the university level seems to have its own challenges and requirements in Algeria. This is, particularly, on the part of the language teacher and to ensure learners’ success, teachers’ qualifications, attitudes, and attributes have to be taken into consideration alongside with the learners’ needs and desires. In this line of thought, our General English teachers often express their inadequacy for such positions; this may occur because of their fear of being unable to cater for their learners’ specific needs. As a result, being unprepared for teaching ESP, language teachers often find themselves obliged to rely on their own experience to teach those classes, as well as, to create their own teaching materials with respect to their students’ discipline and needs, too. Therefore, the main aim of the current paper is to present, discuss and reflect upon the actual situation of the language teachers who have been trained in linguistics, phonetics, civilization,…etc. and who are recruited to teach ESP at the physics department within the faculty of Exact Sciences of Tiemcen University, and to search for the possible ways to increase the competence and confidence of those ESP practitioners through a moderate call towards retraining them in other areas of interests.

Keywords: ESP, EST, language teachers, qualifications, situation, training.

Introduction

In this new and unique millennium where the world is struggling to interconnect mainly under Globalization, a wide variety of changes are, chiefly, taking place. In this sense, our first concern as individuals in that large-scale context is not only to delineate those impacts of this process upon the world political, economic and commercial systems, but also to go beyond and mark out its immediate effects on a set of countries which are seeking change, essentially, for a better future. In this light of thought, Algeria, the nation which is looking for an internal recovery and international comeback has and still is endeavoring to reform all its systems including the educational one.

Problematic

An interesting part of those Algerian reforms is the adoption of different strategies and systems in a hope to achieve a better teaching/learning process at all levels of education. At the tertiary level, our ministry of Higher Education and Scientific Research has called for the implementation of the ‘LMD’ system as a new-fangled policy for a change, besides the ESP courses.

In ESP context, language teachers who are considered to be responsible for the teaching and learning process, are supposed to deliver suitable content and valuable guidance for their learners, they themselves prove to encounter serious difficulties preventing them to adequately function for the required purposes as much focus is given to the learner and almost neglecting the teachers’ professional needs to cope with the actual requirements. In this vein, our first concern as researchers is to try to shed some fresh light on our higher educational settings while implementing ESP courses, to reflect upon a set of facts in the eyes of both key parameters notably: our learners and their teachers, to outline their current situations and future perspectives is believed to be of worthy significance.

Hence, our enquiry would be mainly articulated in the following way: What are the main difficulties our teacher, besides, their learners are fundamentally faced to? What are their major prospects? Can someone speak about a better...
professionalization of the teaching/learning process without reconsidering our ESP lecturers’ preparations?

3. Context Description

Algeria, as the rest of the globe, endeavours to implement and therefore, develop the use of English to insur better communication, as well as easy access to knowledge for students, workers, researchers, etc. At the tertiary level, English is introduced in different curricula at different departments nationwide, either as a main subject at the English department and by which students are required to attend the following modules: Literature, Civilization, Linguistics, Phonetics, Oral Expression, Written Expression, TEFL and so forth; or simply as an additional but compulsory module. At this department, i.e., English language and Literature Department, the majority of teachers who are in charge of these courses are full time teachers and who hold either Magister or PhD degree. Part time teachers can also teach and they often hold a License in English and are either first year or second year Magister students.

As mentioned above, apart from the English Department, English is also introduced in other departments and it holds the status of an additional module but ‘compulsory’. Students who belong to one of the following specialties: Mathematics, Physics, Chemistry, Sciences, Engineering, Economics, Political Sciences, etc, are required to follow ESP courses, depending on their area of research and their needs, as well. Hence, different ESP courses are provided nationwide under different labels. The most common ones are: EST ‘English for Science and Technology’, EBE ‘English for Business and Economics’, and ESS ‘English for Social Sciences’. As a result, English as a component is studied alongside their current modules.

The vast majority of these jobs are part time teachers who are engaged in other situations and who have other duties, besides their permanent jobs such as teaching at other departments; the English department for instance, or teaching at other levels; secondary or middle school.

4. Situation Analysis

The need to learn English is, basically, associated with the need for language teachers who are able to teach English either for General or Specific Purposes. At Aboubeck Belkaid University, ALGERIA the situation under investigation, where a rapid growth and expansion has gradually taken place these recent years, English is taught in a separate department within the Foreign Languages Faculty as a main subject. At this department and after accomplishing either four years (in the classical system) or three years (in the LMD system) students are rewarded with a BA degree in English, and by which they are able to work as English teachers.

Hence, once they get a position as teachers they hold the status of EFL teachers; this is mainly due to the fact that during their training, they had no ESP teaching methodology. Therefore, one may say that an ESP teacher is originally a General English teacher who is recruited to teach ESP courses, and by which he can apply for positions in different departments including the English one. At this level, it should be stressed on the fact that those teachers are facing a lot of contextual hindrances.

To move a step further, I deeply believe in the fact that, language teachers who are asked to provide and run ESP courses do not have any special training or instruction that may help them better cope with the requirements of the particular situation they are involved in before starting their careers as ESP teachers. As a result, they may encounter a difficulty of being not well prepared or as has been stated by Hutchinson and Waters (1987:157): ‘...a new environment for which they have generally been ill-prepared.’

In this regard, it is generally presumed that the common two features of ESP teaching are notably: time allotted for English teaching which is only a period of one hour and half per week; the second common feature is the nature of the job; language teachers, in almost cases, are, only, part-time practitioners.

To put it differently, ESP courses are generally planned as the last course of the day, or even the last course of the week. This fact may have negative impact on learners’ attendance, motivation and achievements. The insufficient time may affect, also, the content of the course since the ESP teacher needs to reach a set of goals he/she planned before starting his/her course. As a result he/she is required ‘to teach them only the bits of English they need.’ (Bestrommen 2006:18)

Apart from the time allocation, teachers in ESP situations often claim about the group’ size, i.e., the number of students in each class; He/she is often obliged to deal with large classes with mixed abilities and of heterogeneous needs. Moreover, ESP courses are considered as less important and of a secondary value and position. This fact is proven by a series of reasons:

First of all, no attention was given to ESP; since curriculum developers who are most of the time the language teachers in charge of these courses did not acknowledge the result, teachers are free to decide about the importance of this subject for their students.

A grammar-translation method is often used, the focus is on activities and tasks of grammar which will be of general interest under the given situation. Because of learners’ background in English, many of these lessons do not match learners needs and they are just lecturing each other and neglecting the teacher’s presence as well.

As a reaction to this situation, the teacher, who has no orientation and who is not supported before, in addition to the nature of the subject, may feel discouraged.

5. Learners’ Prospects in the New Millennium

In ESP teaching/learning situation, it is crucial to know besides the prospects of our learners and ESP practitioners to respond correctly and accurately.

Depending on both parameters; observation process the following difficulties:
- Lack of motivation; English is not a native language of the student.
- Low level of language proficiency; for example, vocabulary, pronunciation, sentence structure, etc.
- Lack of appropriate terminology;

Based on the outlined difficulties, the ESP teachers need to include translation for them may help them learn their L1 to L2. They have, in fact, mental, academic, and professional language learning.

To go a step further and apart from the above-mentioned difficulties, apprentices are already adult learners and they acquire the language proficiency which can facilitate their language and taking part in seminars and discussion groups helping them to raise their EFL level. However, the emphasis of the ESP course is on self-regulation in writing and not necessarily on oral communication.

Students, in this case, have called for several fundamental changes:
- To design courses based on the needs of students;
- To take part in the process of designing课程;
- To provide real-life tasks which are related to their field of studies;
- To afford a wide range of tasks;
- To motivate students;

In addition to the already mentioned, there is a need for the ESP teachers to face the real-life situation and find a way to cope with it within their context.

As an ESP practitioner, I may say that our learners’ level of English language proficiency is no more seen as a separate trend but a part of the overall teaching and learning process and translation, in this case, is, therefore, seen as an additional tool that may help our learners expand their knowledge.
Learners’ Prospects in the New Millennium within our Higher Educational Contexts

In the ESP teaching/learning situation, it is of paramount importance to have a careful and deep look at the difficulties, besides the prospects of our learners since needs analysis is regarded as the foundation stone that may help ESP practitioners to respond correctly and accurately to those wants, lacks and perspectives, as well.

Depending on both parameters, the learners’ answers provided in the questionnaire besides, the teacher’s observation process the following difficulties have been outlined on the part of the learners:

- Lack of motivation; English is not important for them;
- Low level of language proficiency. Hence, they encounter a set of problems at different levels: Grammar, vocabulary, pronunciation, sentence structure and so forth;
- Lack of appropriate terminology for their fields of study, i.e., physics.

Based on the outlined difficulties, the learners have suggested translation as a main remedy for those issues. To include translation for them may help them express better their ideas, transfer the amount of information they have from L1 to L2. They have, in fact, mentioned translation from Arabic, or French to English and vice versa to learn more specialized terms.

To go a step further and apart from including specialized translation in our contexts, it should be revealed that ESP curriculums are already adult learners aiming at achieving a particular target namely: improving their level of English language proficiency which may facilitate for them, later on, different tasks including publication of papers in the target language and taking part in seminars and workshops, etc. In this case, it could be mentioned that, our learners are still learning about the content provided for them in ESP courses as this latter does not match their real needs. At this level, I may dare to say that there is a gap between the knowledge afforded and that expected in such context, this may be due to the fact that those language teachers responsible for running such type of courses have no previous specialized training in the area they are currently taking part in.

Students, in this case, have called for a thorough consideration of their wants, lacks and outlooks including fundamentally the following points:

- To design courses based on their real needs;
- To take part in the process of determining the content of the course;
- To provide real-life tasks which may help them function adequately while involved in authentic situations;
- To afford a wide range of tasks aiming at enhancing their level of English language proficiency besides, their motivation, too.
- In addition to the already mentioned key-element which aims, basically, at including specialized translation within their context.

As an ESP practitioner, I may say that including specialised translation in our scientific context aiming at improving our learners’ level of English language proficiency is considered to be of creditable importance. In EST milieu, translation is no more seen as a separate trend but as an integrated activity, and skill aiming at facilitating the way for our learners to better grasp the content of their courses and, later on, function adequately in their target situations. Specialised translation, in this case, is, therefore, seen as a vocabulary builder tool, a way to mediate culture and an instrument which may help our learners expand their knowledge, evaluate and assess their performance, too.
6. Reflections on Teachers’ Preparations in the Light of their Qualifications

Based on a personal experience while investigating the area of ESP at the level of Aboubekr Belkaid University, Tlemcen, ALGERIA, it has been noticed that the ESP teacher who constitutes a key-parameter in the teaching/learning process has been neglected. This may be considered as the main reason for such a failure in this process, regardless learners’ needs, wants and lacks, and their levels of proficiency too.

As the central issue of the current work revolves, therefore, around the ESP context with all the particularities that may underlie, it can be stated that improving the ESP teaching/learning practice, could not be reached unless a careful examination of teachers’ preparations, roles and qualifications is, almost, provided and, deeply, discussed. In other words, and derived from the results of the already conducted needs analysis, our language teachers need, fundamentally, to be retrained to respond positively to the requirements of their target situations besides, their learners’ expectations.

As a first stone in providing, more or less, an accurate evaluation which may help us later on suggest a set of remedies, it can be stated that training as a process which is “the formal preparation of prospective teachers” may entail two phases, namely pre-service and in-service training courses. Taking the ESP teachers as a case study, it can be assumed that, an ESP practitioner needs to be trained before being involved in the ESP teaching situation first as a language teacher. Later on, while he/she is involved in such a situation he/she may need to undergo an in-service training which should suit his/her needs and the field he/she is involved in.

Believing in the fact that, the main aim which stands behind undertaking a pre-service preparation is “to help them [future teachers] enhance and improve language abilities, pedagogical skills, and cultural knowledge” (Sarp et al., 2011: 100) to function adequately as a teacher, an ESP practitioner should, first of all, undergo a pre-service general training phase by which he is required to attend the following lectures, including a variety of sciences which revolve around the Teaching of English as a Foreign Language (TEFL) as it is its case, here, in Algeria. In this phase, a prospective ESP teacher should be well equipped with a sound training which includes; phonetics, linguistics, psychology, pedagogy, methodology and so forth. Furthermore, he or she must undertake a ‘specialized training’ which includes other areas such as needs analysis; syllabus design; materials production; specialized language ‘terminology’, must be carefully addressed. At last but not least, practice is almost needed.

Joining this idea, and as a main part of their preparations, language teachers are supposed to acquire a set of qualifications which are considered to be a prerequisite. These latter will help them function adequately in any teaching situation. In this regard, the ESP teachers; like the general language teachers, need first to acquire three types of competences, notably Language Competence; Pedagogic Competence and Language Awareness. In addition to another element which is related to the specialised knowledge depending on the learners’ area of specialism. The following diagram is an attempt at summarizing this view.

![Diagram of Teachers’ Qualifications](image)

**Fig. 1. Teachers’ Qualifications (Adapted from Thomas 1993)**

In other words, if a teacher lacks one of these competences, he or she may not be able to function appropriately as a language teacher. Accordingly, these four competences are believed to be of vital value for those instructors. Joining this idea, and though our Algerian language teachers may be well equipped with the three first competences namely language competence and awareness, pedagogic competence, they, in most of the cases, lack the fourth element which is specialised knowledge. This latter is believed to be of worthy significance for them to facilitate the task of teaching, and hence, functioning adequately in their target milieu.

According to Thomas (1993), Language Competence is a pre-requisite for the language teacher. Taking into consideration that an Algerian ESP teacher is not a native speaker of English, this does not imply to have a native-level competence. His role, in contrast, is to help learners to function effectively in their target settings.

On the other hand, pedagogic competence implies the ability to teach effectively. This is commonly due to the fact that, one may have a good command of a language but this does not mean that he/she is a good teacher. (Richlin, 2009)
To achieve this end, the teacher should keep in touch with the current research works about teaching/learning process. Attending conferences and workshops may also constitute a great help for the instructor.

One of the teachers' duties is the ability to supervise both processes namely, language use and learning in the classroom. This can be achieved through conscious reflection on language which could be accomplished by going beyond the ability to only use the language. In this regard, language awareness is a key-parameter in ESP teacher training because of the fact that "the language content of the ESP courses usually differs from that presented on general language courses" (Lomax et al 2002: 131).

In addition to those competences cited above, I have felt the need to introduce another element to better cope with the requirements of an ESP teaching situation. This latter is theoretically known as 'a specialized knowledge'. In this line of thought, ESP is often defined as the teaching of English for a 'clearly utilitarian purpose' (Mackay et al, 1978), depending on the learners' field of study; current and future situation and needs, as well. Hence, an ESP teacher is often faced with adult learners who are supposed to have specialised knowledge of the field and scope of research, and who seek to learn the kind of English which is believed to be encountered in their educational context. As a consequence, the role of the ESP teacher is to be about helping students to communicate effectively in the target language while using their knowledge related to the field they are, fully, taking part in. To achieve this purpose, a certain level of knowledge of the learners' area of study is required. However, it is to be stated at this point that the primary concern of these teachers is to teach language and not the specialty. This idea has been clearly articulated by Bojovic (2007:493)

"ESP teachers are not specialists in the field; but in teaching English, their subject is English for the profession but not the profession in English".

To move further in evaluating and, hence, assessing the effectiveness of our teachers' preparations, it can be proclaimed that any prospective practitioners may feel inadequate if they seek to rely on what they have learnt in theory, they then need to find a way to practise what they have acquired in the theoretical phase. This latter can be achieved through observing other teachers, and later on, they may be asked to run the course under their trainers' monitoring.

Trainers' supervision may constitute a great help for a prospective teacher who does not only need supervision but also feedback on their performance, as well.

As it has been discussed above, pre-service teacher training is of paramount importance for prospective teachers. On the other hand, and for those who are already involved in ESP teaching situations, in-service teacher training may constitute a great help for them. This can be achieved through attending workshops and seminars by which they seek to further a better professional development. In the same line of thought Savas (2009:402) writes:

"Language teachers and prospective language teachers can attend professional development workshops to let themselves acquire a second field of expertise, such as medicine, engineering or law. While taking part in such training, ESP teachers may benefit a lot; "new teachers learn from veterans. They become oriented more quickly and effectively." Buckley (2000:12)

Believing in the fact that, ESP is still in its infancy here in Algeria and our Algerian ESP practitioners lack expertise in their teaching field and have no enough preparation as they did not undergo an adequate training for the field they are already involved in or aiming to take part in, and lack a specialised knowledge to perform those outlined tasks, in this case, teaching EST groups is considered to be a difficult assignment or even their nightmare. Retraining them, in this case, in a wide range of areas will facilitate not only the task of teaching for them and but also help them better respond to their learners' needs.

II. Conclusion

Ultimately, to provide a set of hopefully useful recommendations and suggestions is mainly done as a path toward filling the existing gap between the requirements of the actual situation and the needs of those key-parameters namely our teachers and their learners for their own benefits. Nevertheless these pedagogical, as well as administrative reforms remain only theoretical unless a radical change in addition to serious actions put into practice by those who are considered as the decision makers first at the university level then to a higher level by the ministry itself.

This could be done mainly for the sake of maintaining balance between the requirements of different situation; being academic or professional and the increasingly developed demands of technology, economy and sciences through preparing teachers whose main aim is to promote the ESP teaching situation and who are absolutely aware of the requirements of their different teaching situations, who have knowledge of the main principles ESP is based on, and who are ready to accept change by adopting positive attitude toward the fields they are teaching, and before all who can better articulate and respond to their learners' actual needs and future prospects.
References


---

1. Introduction

The term 'generative grammar' was coined by Noam Chomsky. This term was introduced in his book *Syntactic Structures* (1957) and it describes a formal system of grammar that is used to generate sentences in a language. It is a way to study the structure of a language and how words are put together to form sentences. The term describes how to construct sentences in a language and how the sentence structure is formed.

2. The Phrase...

Generative grammar is a theory of language that studies the nature of human language, how it is learned, and how it is used. It focuses on the underlying structure of sentences and how they are formed.

Most utterances will form the same basic structure and follow grammatical rules. For example, the phrase, in the sentence "I eat an apple," the subject is "I," the verb is "eat," and the object is "an apple." According to generative grammar, the structure of this sentence is what makes it a valid sentence in a language.

...
Résumé en Français:

Le fait de la formation des enseignants «aspect négligé» est considéré comme un pré-requis pour une prestation de cours dite efficace et efficiente, de l’Anglais comme langue de spécialité (ESP); sur ce, le présent travail se définit comme un appel d’urgence à l’absence de cette formation dans nos institutions universitaires Algériennes. De ce fait, l’installation de spécialistes en ESP comme nouveaux recrues au département de physique, avec un programme de formation des enseignants spécialisés, basé sur des séminaires et des ateliers de performance, semblent être plus que nécessaire et important dans la promotion et le développement de nos enseignants-apprenants en situation de langue Anglaise à objectif spécifique.

Mots-Clés:
Langue de spécialité, Enseignant Universitaire, Formation, Qualifications, Situation.

Summary in English

Admitting the fact that teacher training ‘the neglected-aspect’ is regarded as a pre-requisite in delivering effective and efficient ESP courses; the present work sets itself as an urgent response to the absence of this latter at the Algerian institutions. Providing, then, the newly recruited ESP practitioners at the physics department with a specialised in-service ESP teacher training programme in a form of seminars and workshops is believed to be of worthy significance.

Key-words:
ESP, Teacher, Training, Qualifications, Situation.