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Faculty of Letters and Foreign Languages

Department of English

Assessing the Quality of Teaching in an ESP Context: Case of the Chemistry Department at the University of Tlemcen

Thesis submitted to the Department of English in candidacy for the degree of Doctorate in Didactics and Assessment in English Language Education

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Academic Year: 2022/2023

Declaration of Originality

I, hereby, declare that this doctoral thesis is my own work, and that it neither contains material previously written by another person, in whole or in part, nor has been accepted for the award of any other academic degree or diploma. I also certify that it contains no plagiarism, except where otherwise indicated.

December 7th, 2022

ABBASSI Asma

Dedication

To my dear parents,

To my husband,

To my brother and sisters,

To my family and friends.

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ABSTRACT

Higher educational systems worldwide are witnessing constant reforms for the sake of producing skilled generations and contributing to individuals' welfare. As a result, they are striving to afford effective ways conducive to achieving a better quality of teaching and learning. The perceived importance of English for Specific Purposes (ESP) puts Algerian higher educational institutions at the forefront of the change movement, which seeks to improve the existing ESP teaching quality and make it serve its real purpose in equipping ESP learners with adequate English competences that enable them to perform effectively in their academic and professional contexts. In an intriguing mirror image, if one takes a look at a real-life situation, s/he will recognise that ESP instruction is still deficient, as can be observed and felt in the majority of such contexts, in which learners' motivation and achievement levels are unsatisfactory. Apparently, ESP teachers face various hindrances that prevent them from functioning effectively, and students, on the other hand, also encounter different obstacles that impede their progress. Therefore, the present study is an attempt to assess the quality of ESP teaching in the Department of Chemistry at the University of Tlemcen (Algeria). Its main aim is to obtain feedback about the quality of the course provided, ensure that the existing practices meet the expectations of learners, and unveil the major influencing factors on the teaching quality. To this end, a case study research was embarked on to explore teachers' practices and learners' perspectives based on quantitative and qualitative data collection procedures. A questionnaire was distributed to students, and semistructured interviews were undertaken with teachers in addition to classroom observations conducted by the researcher. Hence, a mixed-method approach was adopted to analyse the obtained data. The findings revealed that ESP students'

expectations are not fully fulfilled due to the fact that teachers have limited knowledge about learners' needs and demands. Moreover, results corroborated a number of factors that impacted the quality of ESP teaching, mainly the quality of teachers' competence, teacher education, needs analysis, methods of instruction, teaching materials, assessment, as well as learners' competences, attitude and motivation.

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LIST OF ABBREVIATIONS AND ACRONYMS

AAS: Appropriate Assessment Scale

AWS: Appropriate Workload Scale

CEQ: Course Experience Questionnaire

CGSS: Clear Goals and Standards Scale

CIAQES: Commission d'Implémentation d'un système d'Assurance Qualité dans les établissements d'Enseignement Supérieur

CPQ: Course Perceptions Questionnaire

ELT: English Language Teaching

EQA: External Quality Assurance

ESP: English for Specific Purposes

GE: General English

GSS: Generic Skills Scale

GTS: Good Teaching Scale

HEIs: Higher Educational Institutions

IQA: Internal Quality Assurance

LMD: Licence, Master, Doctorat

LTT: Learner Talking Time

MESRS: Ministère de l'Enseignement supérieur et de la Recherche Scientifique.

MI: Math et Informatique

OECD: Organisation for Economic Cooperation and Development

QA: Quality Assurance

QAA: Quality Assurance Agency

QM: Quality Management

QTELL: Quality Teaching for English Language Learners

SET: Students Evaluations of Teaching

SM: Sciences de la Matière

SPSS: Statistical Package for Social Sciences

SRI: Students Ratings of Instruction

ST: Sciences et Technologie

TTT: Teacher Talking Time

UNESCO: United Nations Educational, Scientific and Cultural Organization

General Introduction

The growing concern about educational quality has prompted a rethinking of instructional systems in higher education institutions (henceforth, HEIs) on a national and international scale. Governments worldwide and decision-makers are consistently taking measures to improve the quality of education in order to produce well-educated generations and prosperous societies. It is a truism to assert that the university's *raison d'être* is defined by the quality of its teaching outcomes. Accordingly, improving the quality of education in universities is largely dependent on the quality of teaching and the type of knowledge addressed to learners.

In effect, there is a prevalent thought, when talking about the quality of teaching in HEIs, that the teacher is the only one responsible for the success of the teaching process; however, the various roles of the different stakeholders, mainly policymakers, leaders of the institutions, teaching staff, learners, employers, etc., have a significant influence on the success or failure of the teaching and learning process. Thereupon, it seems reasonable to assume that there are several factors that may overtly or covertly influence the quality of both the teacher's performance and the university students' learning experience.

It seems wiser to be aware of the main standards conducive to high-quality teaching in HEIs. In this respect, there is an international consensus that teaching content, teaching methods, teaching conditions, and teaching management are the main quality indicators (Zhuang, 2021). In a similar vein, it is believed that recruitment, facilities, students' support, teacher performance, and evaluation procedures are also considered determining factors of the quality of teaching (Henard, 2009). This implies the employment of teachers with high qualifications and competencies who possess a sense of devotion and conscientiousness. Furthermore, learners' contributions are visualised of paramount importance in achieving a better learning experience, including their willingness and commitment towards learning. The role of evaluation and assessment, on the other hand, is threefold. It is used to evaluate learning outcomes

and identify learners' strengths and weaknesses so as to improve flaws and defects in the teaching and learning process. Furthermore, it is the official, reliable method used to measure the quality of teachers, and it also helps to ascertain the effectiveness of the teaching system in the institution as a whole. Henard (2009: 53) puts it simply, claiming that "the evaluation helps teachers and leaders alike to understand the gains and progress to be made in order to benefit students' learning."

There is no need to recall that learning English is nowadays regarded as indispensable for individuals as a consequence of globalisation, which has made English the global *lingua franca*. Thus, there is an ever-increasing need for quality English Language Teaching (henceforth, ELT) at all levels. Hence, ELT practitioners worldwide face the challenge of generating individuals with competences that make them capable of communicating effectively in modern foreign language (Cameron, 2002). To achieve the goal, ELT has been implemented throughout HEIs at various levels and departments under a different scope known as English for Specific Purposes (henceforth, ESP).

Lately, considerable attention has been directed towards ESP teaching and learning. Accordingly, improving the quality of ESP instruction has become a *sine qua non*, as Porcaro (2013: 37) claims: "The role of English in the fields of science, engineering, information technology, and business is ever increasing. Consequently, so too are the demands on ESP practitioners to serve the needs of students and professionals in these fields to conduct their studies, research, and business in English on an international scale." Nonetheless, there is ample evidence that the ESP periphery in the Algerian context is not satisfactory, and the weak level of learners' performance is a concrete proof of that.

The reasons behind the low quality of ESP are related to teachers, learners, and the teaching environment. According to the literature, the main hindrances to ESP teaching and learning encompass teaching methods, course content, teaching materials, subject-specific content knowledge, and learners' attitudes. As a matter of fact, teaching grammar rules and terminology or dealing solely with technical topics aiming to develop learners' vocabulary does not correspond to the real purpose of ESP teaching. Unfortunately, this is the typical course undergone by teachers in most of the ESP contexts in the Algerian universities.

Being successful ESP teachers does not require them to be experts in the subject area; rather, they need to have sufficient understanding to be able to transmit knowledge of the language through knowledge of a field-specific area. They also need to have sound pedagogical command. However, when considering the existing situation of ESP in Algerian Universities, much can be said about teachers' knowledge of content and pedagogy. In most cases, there is a noticeable shortage in teachers' performance due to the fact that instructors are graduates of General English (GE) who are steered towards teaching English in other streams and disciplines. Thus, they face many constraints in compiling the efficient content knowledge that enables them to provide learners with the knowledge they need for their academic or professional domain.

Presumably, the prevalent teaching method, contingent on a teacher-centred approach, may also affect the efficiency of the course results. In more technical terms, ESP teaching is meant principally to rely on a learner-centred approach focusing on engaging learners in the teaching and learning activities, including course design, learning activities, assessment, and so forth. Nevertheless, that is not the case in real life. Producing passive learners who merely receive information has never been the ultimate objective of ESP teaching.

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What muddies the waters is the fact that in most cases, ESP teachers are newbies and have not been subjected to teacher training. As a consequence, they lack the competence to teach or engage effectively in ESP activities, such as course design, needs analysis, material development, and evaluation. Above all, the poor hiring standards, and the total absence of formal teachers' evaluation process aggravate the situation and may give rise to a lack of commitment and irresponsibility of some instructors.

This research reinforces common sense. Thus, its main concern revolves around investigating the quality of the ESP context by determining the extent to which students are able to achieve their potentials from the course and whether the provided course is successful in helping them develop the necessary language skills they intend to have. Besides, the study serves to illuminate the factors influencing ESP teaching quality in the Chemistry Department at the University of Tlemcen (Algeria). The central focus was to determine the merits and shortcomings of the teaching practices, in addition to identifying the aspects that control the teaching process and, accordingly, determining the contributing aspects that may help to achieve better quality.

The main objectives of this study include the following:

- ❖ To investigate the teaching practices of ESP teachers at the Chemistry Department.
- ❖ To unveil the factors affecting the quality of ESP teaching within the Chemistry Department.
- ❖ To examine the effect of teachers' quality on learners' performance.
- ❖ To indicate resolutions that enhance the quality of teaching in ESP classrooms from teachers' and learners' perspectives.

General Introduction

In order to attain these objectives, the researcher established the following research questions:

- 1. Does the current ESP course at the Chemistry Department meet students' expectations?
- 2. What factors influence the quality of teaching and learning in an ESP context?
- 3. How can ESP teaching quality be improved from teachers' and learners' perspectives?

Based on these research questions, three hypotheses were generated:

- H1. ESP teachers' knowledge about learners' needs and wants is limited to a certain extent; therefore, students' expectations about the ESP course are not fully realised.
- H2. Teachers' skills and qualifications, training, needs analysis, course design, and learners' attitudes are the central factors that govern the quality in ESP teaching.
- H3. The initiatives that improve ESP teaching quality are dependent on enhancing teachers' content and pedagogical knowledge, raising learners' attitudes and motivation, and renovating the teaching style and methods. Furthermore, more attention must be given to the role of quality assurance systems in the university sector.

In an attempt to test the validity of these hypotheses and find answers to the research questions, the researcher conducted an exploratory case study based on three research instruments: a questionnaire, a semi-structured interview, and classroom observation. The questionnaire served as a means to obtain feedback about learners' satisfaction with the quality of the ESP course. The interview, on the other hand, was carried out with ESP teachers at the department in order to compile in-depth information about the teaching situation under study. As for classroom observation sessions, they were undertaken to depict the teaching practices of ESP teachers at the Chemistry Department. The data analysis procedure depends on a mixed-method approach, considering that the study relied on both quantitative and qualitative data. The former were transformed into descriptive statistics using the SPSS package, and the latter were analysed and interpreted by the researcher.

The current research is represented in four main chapters. The first one is devoted to setting forth an overview of the main literature and the key concepts related to quality in teaching, assessment, and ESP principles. In fact, this chapter explores the literature and previous studies about quality in education and the requirements conducive to a better teaching milieu. It also seeks to highlight the main issues pertaining to ESP teaching and learning quality. Finally, it provides a review of assessment and evaluation procedures and how these aspects affect the success or failure of the teaching process in general, in addition to the ESP's academic and professional achievements and prosperity.

Chapter two is devoted to depict the research situation and describe the design and methodology. The first part illustrates the situation of ESP teaching in Algerian Universities in general and at the University of Tlemcen in particular. The second part represents the planning, development, and execution of the research procedure, with a detailed demonstration of the applied sampling methods and research instruments

General Introduction

adopted for the data collection, and how they were structured to align with the research objectives.

The third chapter seeks to embody the analysis of the research work and present its main findings. The quantitative data collected through the research process is broken down into descriptive statistics, tables, pie charts, and bar graphs. While qualitative findings are translated into the researcher's interpretation, the last part of this chapter endeavours to discuss the findings, draw conclusions, and answer the research questions established at the onset of the present investigation by confirming or denying the hypotheses set by the researcher. The fourth and last chapter in this dissertation aims to provide implications and recommendations to improve the quality of ESP teaching in Algerian universities. Implications encompass the main stakeholders concerned by this investigation, namely teachers in the first place, university and department leaders, and learners.

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1.1 Introduction

"Quality is never an accident, it is always the result of high intension, sincere efforts, intelligent direction and skilful execution; it represents the wise choice of many alternatives". William A. Fostter

Quality is currently gaining increasing interest in all life domains, not least in educational contexts. Consequently, this notion has become a major concern in education worldwide. Governments, policymakers, and educational leaders in different countries are constantly pursuing ways to enhance teaching and learning quality in order to satisfy the ultimate educational needs and produce well-educated citizens and prosperous societies. In this regard, it is assumed by various studies and research that institutions, communities, and educational stakeholders are the most important factors that have an influence on the quality of education. Therefore, improving the quality of education depends fundamentally on enhancing the quality of teaching in institutions.

In the same fashion, research evidence has clearly demonstrated that quality teaching and quality teachers have a great impact on learners' lives. Students are likely to develop a variety of attitudes and conceptions toward learning, which are constructed based on the teacher's influence (Hanushek and Rivkin, 2006). Furthermore, a combination of quality teachers, learners, and a safe and healthy learning environment should lead to a better learning experience.

In a more specific context, it must be noted that language teaching and learning are complex and dynamic processes. Hence, it is widely recognized that successful language teaching is based on a combination of content and language instruction so as to meet the aims and needs of learners of different backgrounds. Undoubtedly, the integration of language and content is likely to increase learners' cognitive loads by gaining an understanding of the content area while, at the same time, increasing their language proficiency (Turkan et al., 2012). Along with that, learners are not equal in

terms of the learning experience, the level of the target language, and their backgrounds. On the other side, teachers, too, differ in terms of knowledge, skill, pedagogy, personality ... As a result, it is worthwhile to shed light on the critical debates about quality teaching.

This chapter, serving as a review of literature, aims at shedding light on the relevant literature related to the key terms of this work, involving teaching quality and its mechanisms, quality assurance within educational systems, as well as assessment frameworks, in addition to special attention to ESP teaching at the tertiary level. Moreover, this part is devoted to bringing about a comprehensive view of the constituents of quality in teaching in general and, more precisely, in teaching English for specific purposes.

1.2 The Concept of Quality in Education

Quality is highly valued and has become an issue of importance in all life spheres. Recently, the concept of quality has been given much attention and significance as it has become ubiquitous and commonly used among people. Nevertheless, it is believed that quality may freely be discussed, demanded, or even provided, whereas it is not easy to provide what quality actually is, how it can be recognized, or how it can be measured.

Basically, the concept of "quality" was developed with the advent of industrialization as a way to improve profits and ensure that products conformed to specifications, requirements, and expectations. Gradually, this term expanded its borders to encompass other social services, mainly education, health, and defence. As for Juran and Gryna (1993), quality can be viewed as a set of characteristics that satisfy the customers' needs and make the product satisfactory, or as a product with zero deficiencies.

Despite the on-going debate over defining this concept in a final and universally acceptable way, especially given that it may have diverse meanings with regard to different people who have different perspectives. It goes without saying that this concept is deemed to be a slippery one: "multi-dimensional, multi-level, and dynamic" (Vlăscenau et al., 2007: 46); therefore, it's not easy to restrict its meaning and narrow it down to a one-sentence definition. It is also viewed as "a poorly defined and loose concept" (Stensaker, 2007: 100). Thus, many authors have provided various definitions and approaches. As a result, there is no widespread agreement on a single, clear definition for this concept, as many researchers regard it as a subjective matter based on personal judgment.

Pérez (2000, as cited in Hughes, 2007) argues that this confusion is a result of various reasons. First, in terms of the degree of reductionism to this concept, it can be viewed as performance results or outcomes of a particular system or procedure, while it can also be viewed from a different standpoint and consider the process per se with regard to quality. On the other hand, the context implies that every sector has a specific visibility to define the scope of quality in relation to its periphery. Finally, international quality modals like ISO do not share the same aspects and characteristics.

According to Doherty (2012), quality is a means used by organizations for reassuring themselves of the extent to which their general aims, objectives, and outcomes have been met. To put it differently, quality is the measurement used by professionals to evaluate the outcomes of their institutions and to ensure that the content of what they provide meets their goals and expectations.

From another angle, the British Quality Assurance Agency (QAA) defines this concept as "a way of describing how well the learning opportunities available to students help them to achieve their award. It is about making sure that appropriate and effective teaching, support, assessment and learning opportunities are provided for them". (Prondzynski, 2008).

Furthermore, quality can be visualised through different conceptualizations. As a result, Harvey and Green (1993) proposed five dimensions: quality as exceptional (associated with excellence and high standards), perfection (consistency and zero defects), fitness for purpose (meeting specifications), value for money (efficiency and effectiveness), and transformative (an on-going process related to stakeholder enhancement and empowerment).

From an educational standpoint, Goddard and Leask (1992) posit that quality is simply meeting the requirements of educational stakeholders, involving students, teachers, employers, institutions, parents, and the government, noting that each of them expects specific insight into quality. In the same line of thought, Harvey and Green (1993) claim that quality is visualised from two angles. Based on the eye of the beholder, quality might have a variety of meanings according to the different stakeholders in education. In other words, interpretations of the term "quality" may vary from one person to another based on the views and perspectives of each one. As a case in point, quality is seen as a means of control for the government. According to the standards, one could argue that "quality is absolute by equating quality with beauty or truth" (Harvey and Green, 1993: 10). As for students, they may take into consideration their learning experience when talking about quality. From another point of view, what matters most for staff may be the contents of the programme.

Broadly speaking, educational quality is concerned with more than just output. However, it is highly related to the process of delivery, as education is a service rather than a product. In the same vein, Grisay and Mahlck (1991) assert that it is fundamental for the quality of education to consider a set of determinants such as the provision of teachers, buildings, curriculum, equipment, textbooks, and teaching processes. Apparently, they attempt to divide the quality of education into a three-dimensional approach: the quality of input, which consists of the human and material resources of teaching; the quality of process, which entails the teaching practices; and the quality of outcomes or results.

In overall terms, it can be noticed from the definitions mentioned above that quality is a philosophical concept that reflects various connotations according to different individuals holding different beliefs, outlooks, experiences, and perspectives. Yet, what comes in common is the idea that quality in education denotes achieving the objectives set by professionals in addition to meeting expectations by satisfying the needs of academics or students for the sake of increasing their commitment to teaching and learning; thus, maximising learners' educational development.

The quality of education depends on a number of factors. This encompasses at least three levels: learners, teachers, and institutions. Nonetheless, the teachers' role is being overemphasized, especially since the quality of any educational institution is tightly related to the quality of its teachers. Therefore, a strong emphasis should be placed on methods that provide highly qualified teachers, because learners require teachers with high teaching competencies to fulfil their academic potential.

1.2.1 Overview of the Quality Teaching in Education

Quality teaching is a topic of paramount importance that is increasingly rousing debates in education worldwide, as it plays a major role in shaping and trimming learners' academic performance. It is definitely agreed that quality teaching is essential for quality learning due to the strong connection between the quality of instruction and learners' outcomes, in the sense that teachers of high qualities and competencies are likely to provide better effective teaching practices, and thus contribute to better learning feedback. This is corroborated by Barber and Mourshed (2009: 27), who argue that "there is no more important empirical determinant of students' outcomes than good teaching." In this respect, understanding and recognising what constitutes quality teaching is a prerequisite for the development of any educational system.

It must be noted at the outset that the quality of teaching depends on the meaning of 'quality', and when discussing matters allied to quality, one finds it challenging to provide precise and full definitions as it can be treated from different viewpoints. Therefore, it has been given various definitions. Nevertheless, the meaning of the 'teaching quality' is viewed from three major outlooks: the teacher's knowledge, the teacher's performance, and the teacher's creativity (Blanton, Sindelar and Correa, 2006). Alternatively, teachers are required to possess thorough and sound knowledge about the subject matters to be taught in order to ensure that they are up-to-date. Besides, they need to be aware of the practical classroom experience; namely, the ways to transmit information, as well as having effective pedagogical skills and qualifications for delivering learning.

On his part, Ellis (1993: 4) posits that "Quality of teaching is its fitness for the purpose of promoting learning". Hence, devoting a host of factors, ethically and responsibly, to facilitate the task of learning for students and help them acquire knowledge with willingness and passion. In the same vein, Biggs (1999) asserts that quality teaching is what facilitates quality learning among students.

Stones (2003: 103) tries to come to terms with the concept, he postulates that "the hallmark of quality teaching is that it offers understanding and equips learners to apply their learning in new circumstances". Thus, quality teaching occurs when learners are exposed to relevant knowledge. As a result of developing critical thinking and creative problem-solving skills, learners become able to deal with the various settings and conditions effectively. This is consistent with Lovat and Toomey's (2009) belief that the goal of quality teaching is to afford learners appropriate and sufficient learning, while also making a good impact on their personal and social aspects.

The Center for High Impact Philanthropy (2010, as cited in Hightower et al., 2011: 5) provides the simplest and clearest definition:

A quality teacher is one who has a positive effect on student learning and development through a combination of content mastery, command of a broad set of pedagogical skills, and communications/interpersonal skills. Quality teachers are life-long learners in their subject areas, teach with commitment, and are reflective upon their teaching practice... they set high expectations and support students in achieving them. They establish an environment conducive to learning, and leverage available resources to learning outside as well as inside the classroom.

It is most likely that a good and effective teacher is one who is competent in different areas and holds a set of personal dispositions, mainly professional behaviour, values, beliefs, attitudes, and characteristics that help to define teacher performance (Thornton, 2006). In this line of thought, Collinson (1999) states that teacher excellence entails professional knowledge, interpersonal knowledge, and intrapersonal knowledge. For him, professional knowledge refers to pedagogy and subject-content awareness. Interpersonal knowledge entails building relationships with students and the community in general by being flexible and enthusiastic when dealing with students. Intrapersonal knowledge, on the other hand, refers to one's ethics, beliefs, and values as they represent the teacher. In this context, it is reasonable to add that passion, creativity, diligence, and enthusiasm are among the influential factors across teacher quality.

Regardless of the difficulties encountered along the way of teaching, achieving high quality teaching necessitates taking into account "the straits of sterile theorising and blind practices" as Stones (2003: 4) posits in this context that "Quality teaching cannot be a theoretical, nor can it be nurtured by disquisitions on the nature of

teaching by theorists with their feet in the cloud". This means that quality teaching stems from a combination of in-depth theoretical awareness gained through adequate preparation and effective training, as well as practical operation once launched in the real world.

Ultimately, quality teaching can be defined as the process that supports the activities that leave a positive effect on learners' educational development and lead to the attainment of the intended learning outcomes; such a process is founded on sound content knowledge as well as a diverse pedagogical repertoire that helps and motivates students to learn. Besides building relationships between teachers and students in order to create a friendly and supportive environment to study, the teacher and classroom environment have a paramount influence on a learner's performance.

1.2.2 Quality Assurance

The increasing demands for quality education worldwide make it necessary to create a quality culture in institutions and come up with strategies to evaluate, ensure, and improve the quality of educational outcomes. Thus, Quality Assurance (henceforth, QA) is introduced within the educational sphere as a means to define and recognize the quality of education, as well as to steer institutions towards excellence and enhancement in their current practices, in addition to making efforts to revisit and refine any existing chasms in the system.

QA is, first and foremost, based on the premise that prevention is better than a cure (Deming, 1986). It is viewed as a systematic approach that works on preserving institutions first. Then, engage them in raising standards and enhancing the quality of education. In line with this, quality management (QM), which is often related to institutions and organisations, implies the way that organisations manage to assure their quality. This term involves quality planning, quality control, quality assurance, and quality improvement mechanisms (Vlăsceanu et al., 2007). Accordingly, QM

signifies the processes and methods educational institutions follow up on to ensure the quality of policies and whether the set objectives have been met.

QA is a comprehensive term that denotes a set of policies, processes, activities, and mechanisms that contribute to the development and sustainability of the quality of education (Glanville, 2006). In simpler terms, it is the methods by which institutions can assure that their quality standards have been met, which indicates that they are thriving and making progress.

Furthermore, QA is the set of practices that can result in effective educational systems. Therefore, it is regarded as an attempt to investigate the extent to which institutions maintain their academic standards, mainly the level of academic achievement by learners, to fulfil improvement, which indicates that quality standards are strongly related to learners' outcomes, namely the knowledge, skills, and abilities that students get from a specific educational program (Dill, 2010).

From another perspective, Dohetry (2012: 75) views QA as "a proactive approach which attempts to identify problems and deal with them immediately, or even better prevent them from happening at all". In the same vein, he adds that this problem-solving approach is a top-down blueprint with the objective of improving processes and the situation as a whole.

Bogue and Saunders (1992) perceive that QA is a shared mission that is based on coordinating a public responsibility to accomplish the determined goals. This mission, accordingly, should encompass attainable and ostensible goals that are publicly supported and defined by institutions. Yet, Machumu and Kisanga (2014) believes that QA is not the responsibility of institutions alone. It, rather, entails two general types: internal quality assurance (IQA) and external quality assurance (EQA), as illustrated in figure 1.1. The former involves the efforts of the institutions to assess their systems and assure the accomplishment of their potential, while the latter encompasses the external evaluations or reviews.

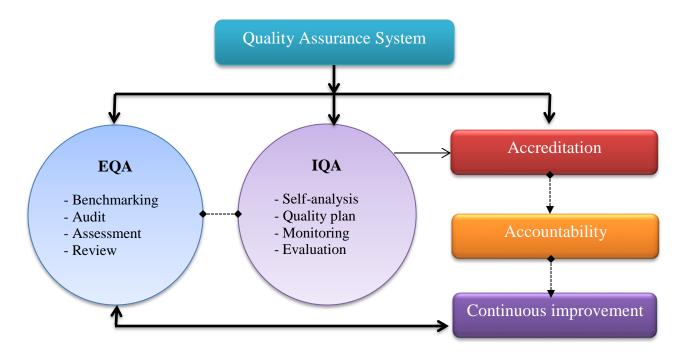


Figure 1.1: Quality Assurance Practices in HEI's (Machumu and Kisanga, 2014: 152).

As a matter of fact, several attempts have been made to provide a precise definition of QA from a tertiary education perspective. According to Barnett (1992), it is the most likely method for implementing the culture of quality among stakeholders in higher education and making each one of them aware of his or her role in improving the quality of their institutions. Furthermore, he assumes that QA in education is represented in different ways. First, the implicit conceptions reflect the academic productions of the institution's members; second, the performance conceptions focus on the quality of inputs and outputs of educational systems.

According to UNESCO (2006), QA is a procedure used to ascertain that the standards, scholarships, and infrastructure adopted in educational institutions are appropriate for their betterment. Vlăsceano et al. (2007) contend that QA is the ongoing evaluation of the quality of higher education and that the collaboration of quality

assurance, quality management, quality enhancement and quality control would emphatically drive to the improvement and success of educational institutions.

In this write-up, QA seems to have various definitions that reflect different connotations. Some of them focus on the evaluation of the prevalent practices and performances in the educational institutions, while others emphasize system improvement and enhancement, and yet another set of definitions highlights specific indicators and standards that grant education quality. Consequently, it seems reasonable to say that the concept of QA is guided by the context and depends on the purpose that it is supposed to fulfil. Hence, QA necessitates common labour between national governments, school management, teachers, students, parents, employers, and the general public (Dansieh, 2015).

It is worth noting that QA is a process that can only be maintained throughout the assessment of the teaching and learning process. That is to say, the most probable way to know what a student has learned and acquired from any programme, is through assessment. Conversely, during the teaching process, more specifically at the level of instruction, teachers are not able to uncover their learners' understanding, mastery, and knowledge, regardless of how good their lectures and materials might be, unless they test them. Undoubtedly, this calls for appropriate assessment methods, owing to the fact that, if structured well, assessment would be considered a critical indicator for the quality of teaching and learning (Schejbal, 2014).

1.2.3 Characteristics of Quality Teaching

In recent years, the increased emphasis on the educational quality has resulted in radical changes in the teaching and learning process. For this reason, a variety of issues have been addressed and discussed for a long time under the umbrella of improving teaching practices and achieving greater academic success. The themes that have been raised and constantly discussed at the forefront of any teaching qualityrelated debate focus on prompting the incentives and contributions that are conducive to the development of quality (i.e., effective) teachers and therefore quality teaching.

There is a considerable body of literature pertaining to quality in education that extrapolates the aspects associated with high-quality teaching. According to Biggs and Tang (2007: 91), "there is no such thing as one best all-purpose teaching method". However, there are some general characteristics of good teaching and learning, namely, an appropriate motivational context, a well-structured knowledge base and skills, relevant learner activity, formative feedback and reflective practice, and self-monitoring. Thereupon, albeit there is no one-size-fits-all method of teaching that should be adopted in order to be effective, there are some requisites that are conducive to generating effective teachers, which in turn yield quality teaching in EI. This is thoroughly based on a set of predefined aspects and characteristics that are necessary for teachers to achieve the academic standards, as their role is considered critical in determining learners' achievement.

Presumably, a quality teacher is one who is professionally effective and has good interpersonal skills that enable him or her to cope successfully with students and enjoy being with them in the teaching and learning environment. Kalantzis, Cope, and Harvey (2003: 18) go on to argue that "a quality teacher of the twenty-first century will be intelligent in more than one way, able to learn and think in more than one way, and learn from and with people whose way of thinking, being, and learning are different from their own".

1.2.3.1 Characteristics of High Quality Teachers

In this section, attention will be paid to the characteristics of quality teachers *per se*. Data from a prior study, based on university students' perceptions, conducted by Walker (2008) leads to the conclusion that there are twelve personal and professional characteristics reflecting the qualities of effective teachers. Those characteristics encompass being prepared, being positive, holding high expectations, possessing

creativity, being fair, displaying a personal touch, developing a sense of belonging, showing compassion, having a sense of humour, respecting students, admitting mistakes, and being tolerant with students.

Chiefly, good teaching has to do with a host of qualities in relation to knowledge, skills, attitudes, and work. Subsequently, defining a specific set of characteristics that is applicable to any context is impossible. Hence, the following is not an all-inclusive list of the characteristics of high-quality teachers; however, it summarises the most common ones highlighted by Walker (2008).

© Teacher's Knowledge and Passion for the Subject Matter

Basically, effective teachers are those who are able to achieve their predetermined goals, whether they are set by themselves or by others, and this is strongly dependent on the knowledge and skills they possess and the way they use them (Anderson, 1991). Accordingly, knowledge of the subject matter and knowledge of the teaching process both matter. Thus, effective teachers are goal-oriented individuals who predefine their objectives and strive to attain them by opting for ways that best serve to transmit the knowledge of subjects they teach *via* successful pedagogical methods, as the teacher is only as good as what he knows. Clarke et al. (2004) put forth a set of skills including teacher knowledge, preparation, planning, explanation, assessment, monitoring, and leading. Furthermore, it is necessary for teachers to display their interest and passion toward what they do so that learners have a similar passion for the subject matter (Carbonneau et al., 2008), which tends to develop in them an eagerness to learn more.

Teacher-Student Relationship

The nature of a teacher's interpersonal behaviour and relationship with students has been given significant weight in terms of teaching quality and student well-being (Van Petegem et al., 2008). In effect, quality teaching is "the art of cultivating"

meaningful human relationships... a dialogue between teacher and student within a community of learners" (Miller, 1999: 196). Being comprehensive, enthusiastic, and approachable to students is likely to create a safe and positive environment in the classroom, which is a favourable indicator for motivating students to learn. As a result, students show a predisposition to engage in classroom activities. Furthermore, developing productive relationships with students helps the teacher get to know them better, allowing him to assess the needs and abilities of his or her students. Based on this, instructions might be tailored to suit each person's expectations (Oneill, 2009). In this context, it's worth noting that mutual respect is the pillar of any kind of relationship. Dornyei and Csizer (1998) confirm that classroom atmosphere and teacher behaviour are fundamental factors that motivate students to learn.

℘ Assessment and Evaluation

Assessment and evaluation are critical aspects of good teaching, and this encompasses both students' evaluations and teachers' self-evaluations as well. In overall terms, research in education has demonstrated that effective teachers share the characteristic of assessing teaching and learning. This allows teachers to have frequent feedback about their teaching, get regular insight on student learning, and assess the course at the end of the term (Science Teaching Reconsidered, 1997). It is most likely that as long as teachers engage in continuous evaluation of students, they get feedback about their performance and whether their students are truly learning. Thus, it can be considered a reflection on the teacher's production.

What is more, throughout assessment, teachers gain the ability to recognise students' levels and competencies in order to determine their areas of difficulty. In this case, they become more acquainted with how to adequately select the teaching methods and strategies that are appropriate for them; hence, they adapt in a way that facilitates learning. In this respect, it is worth noting that quality teachers employ a variety of alternative assessment procedures that are congruent with different student styles. In

parallel, reflecting on the teacher's own performance is a critical part of the teaching process.

© Communicating High Expectations

It is axiomatic that when teachers expect more from their students, they will receive more efforts and results. Simply put, patient and encouraging teachers help students learn more and perform better. This factor would emphatically enhance students' willingness to engage in classroom activities and the leaning process in general. This, in fact, encompasses good students and even low-performing ones.

© Creative Teaching

Creative teachers are those who constantly incorporate new teaching techniques that, most likely, stimulate learners' motivation, increase their interest in learning and assist them in developing new skills and competencies while also improving their learning process. Miller (2012) assumes that creative and innovative teachers are most likely to provide better learning experiences. In essence, creativity in teaching is an important element among the characteristics of effective teaching, along with motivation, high expectations, and the ability to communicate with students and engage them in classroom activities (Morris, 2006). In education, creativity is defined "as a property of people (who we are), process (what we do) or product (what we make)" (Fisher, 2004: 8). When considering a specific activity in the class or a particular task or lesson, creativity is represented as a product. On the flip side, when the focus is on the thinking process or the decision-making, creativity as a process is put into question (Jones, 2012). In line with this, Richards (2013: 21) maintains that creativity involves a number of dimensions:

- The ability to solve problems in original and valuable ways that are relevant to goals,
- Seeing new meanings and relationships in things and making connections,

- Having original and imaginative thoughts and ideas about something,
- Using the imagination and past experience to create new learning possibilities.

As stated by Fisher (2004), creativity in teaching is a key to enhancing students' academic attainments. He (2004: 11) argues that "when students are assessed in ways that recognize and value their creative abilities, their academic performance improves". He carries on with the claim that "creative activity can rekindle the interest of students who have been turned off by school; and teachers who have been turned off by teaching in a culture of control and compliance" (2004: 11).

℘ Well Groomed and Trained

Initiatives to enhance the quality of teaching and produce quality teachers often put emphasis on the preparation of teachers and how to adequately train them in order to be able to launch in the profession and be effective teachers. Training, in the opinion of Richards and Nunan (1990), is devoted to providing novice teachers with the skills and techniques that they will need in the classroom. That is to say, teacher training courses are deemed to provide apprentice teachers with a host of competences, skills, and knowledge that facilitate the task for them by making them able to fathom the educational strategies, philosophical thoughts, psychological approaches, teaching methods, and instructional techniques so as to improve their professional competences in the classroom (Hassan, 2003).

In fact, no one can deny the fact that the profession of teaching is full of challenges and intricacies. Therefore, freshmen are in need of being equipped with basic awareness to cope with the different situations they may encounter. On the other hand, once teachers are in the classroom, they must keep up with changing demands, which necessitates continuous development. In the same vein, quality teachers have well-structured lesson plans, lectures, and assignments that they continuously improve. A well-prepared teacher reflects the diligence and devotion that are required to reflect professionalism.

1.2.4 Factors Affecting Quality within Teaching-Learning Process

One of the critical targets of the educational reforms is the struggle to improve the quality of teaching and learning. It is unquestionable that the quality of any system is highly dependent on the input, process, environment, and output. Accordingly, teachers and institutions' leaders are required to equip learners with the needed competences so as to become active citizens in the 21st century. The modern era imposes the need to adopt and integrate new trends and innovations that help enhance the teaching and learning situation, thus raising the teaching quality. In this respect, effective teaching demands a combination of fundamental knowledge, effective application of methods and pedagogies in accordance with adequate and creative use of up-to-date instructional tools, as well as getting feedback about what students have learned and whether teachers are performing their job properly.

According to the literature, there are a variety of factors that may intervene when talking about the subject of quality teaching with regard to different views and perspectives. On his part, Andere (2007) believes that the teaching methods are the basic factor that influences the quality of teaching. Others, including, Morozini, Cambruzzi and Long (2007) claim that the performance of teachers and students in the classroom is one of the essential aspects that may identify the quality of teaching in any setting. Thus, the following outlines the most common factors influencing the teaching quality:

❖ Teacher Qualifications and the System of Teacher Education

Teachers are viewed as the vital catalysts for the improvement of the teaching situation. They are the guides and directors of students' learning and the prompters to boost students towards enhancing their knowledge and learning abilities, as they are the agents of change (Wallace, 2009). For that reason, educational institutions, at all levels, endeavour to provide teachers with the necessary equipment so as to be effective actors in the 21st century; this entails the recruiting systems and the way the staff are selected,

the system of recruits' initial preparation, teacher education development, and the support they need to reinforce and boost their energy and abilities, the improvement of teachers' performance, and offering them opportunities to have more status and responsibility (OECD, 2011).

When the profession of teaching is regarded as an attractive career choice, it is more likely to entice high-quality graduates to cross the threshold of this profession and participate in the improvement of teaching; hence, they take part in the assurance of teaching quality. Some motivations could encompass offering the status, pay, professional autonomy, and high-quality professional education (OECD, 2011). From the other side, policymakers stress the importance of the pool from which teachers are picked out, as institutions need to hire teachers who possess the prerequisite knowledge and skills and, most importantly, the motivation and preparedness to launch in the teaching sphere.

Furthermore, one of the main factors in achieving better quality teaching is teacher education. In essence, initial and in-service trainings are fundamental stages in teachers' preparation. Throughout this process, novice teachers elaborate their repertoire of teaching skills, knowledge, expertise, and professional capabilities. Teacher training, therefore, serves to equip novice teachers with opportunities and developmental routines, and prepare them for the unanticipated situations and difficulties they will encounter during their teaching. Furthermore, training is a means of guiding teachers towards change and refinement of their attitudes, practices and instructional patterns, as well as preparing them to manage their classrooms.

Professionalism

The professionalism of teachers is believed to be one of the main issues in education. Previous studies confirm that improved professionalism will lead to enhanced teacher rewards and teaching quality (Wardoyo and Herdiana, 2017). Using the words of Wallace (1991: 5), a professional person should be in possession of

"scientific knowledge; a period of rigorous study which is formally assessed; a sense of public service; high standards of professional conduct; and the ability to perform some specified demanding and socially useful tasks in a demonstrably competent manner". That is, professionals are those who have a solid specialised knowledge base, commitment and passion for their job and strive to complete their mission successfully, as well as being socially successful in the teaching environment through integration and building personal relationships with the surroundings.

This quality may be translated into a set of attitudes and behaviours that reflect the diligence and devotion of teachers, specifically respect, punctuality, organisation, flexibility, and having a sense of responsibility. To sum it up, teacher professionalism implies how well teachers implement their skills and do their job with sincerity and high quality standards.

***** Teacher Evaluation and Appraisal

It goes without saying that evaluation is essential to determine the quality of learning, teaching, and the system of education *per se*. Many researchers and policymakers claim that the only way to improve teaching and learning is through collecting evidence about individual productivity. Not surprisingly, effective evaluation will bring to light teachers' strengths and weaknesses so as to identify the needed refinement through professional development, which helps them learn about, reflect on, and adjust their teaching (EOCD, 2011). This, in turn, will help enhance the student's performance.

Most teachers are unlikely to put hand on heart and say that they enjoy being observed or evaluated because they perceive this process a high-stakes event. Nevertheless, if implemented carefully and effectively, evaluation and appraisal should be perceived by teachers as positive components of improvement and success. In this vein, it was reported in the OECD (2011: 34) that the way to make teachers have a positive perception of evaluation is by involving them in evaluation procedures,

precisely, in "self-evaluations as collective processes in which teachers take responsibility".

Productive evaluation can be realised by improving evaluation processes, training evaluators, and introducing assessment and evaluation processes in all kinds of reforms, not least teacher education and professional development. In this respect, teachers should be evaluated based on a range of criteria, such as:

- ➤ Teacher qualifications: degrees, years of service, certifications, and professional development.
- ➤ How teachers operate in the classroom setting, including attitudes, expectations and personal characteristics, as well as strategies, methods, and actions employed in their interaction with students.
- ➤ Measures of teacher effectiveness, based on the degree of which teachers contribute to students' learning outcomes as well as their knowledge of their field and pedagogical practice. (OECD, 2011: 35).

***** Working Conditions and Classroom Environment

Working conditions include all the resources and circumstances existing in the teaching environment, which are shaped by factors such as working time, physical aspects, class size, rights and responsibilities, institutions' leadership, workload, disciplinary climate, and training. These aspects have a substantial impact on the quality of the teaching outputs. More than that, they are probably the most important factors that attract and retain good teachers and motivate them to make greater efforts, contributing to enhancing the teaching quality and students' achievements, respectively (Hanushek and Rivkin, 2007). Besides, the classroom environment has a direct influence on teachers' quality and learners' outcomes alike (Lee et al. 2012). This is viewed in the same way by Fenstermatcher and Richardson (2000: 5), who claim that "high quality teaching occurs in a supportive environment where teachers work as

part of a professional community within a workplace that fosters continuous learning on the part of children and adults".

Assurance Mechanisms

Countries all over the world engage in different ways to assure the quality of their educational systems. Some countries pursue national assurance systems that use inspections and assessments as a basis; some of them use quality assurance systems as voluntary evaluation methods. Other countries, on the other hand, rely on a set of standards developed by institutions themselves. As a matter of fact, quality assurance brings about useful results and a lot of benefits for all involved in the teaching and learning process.

As a consequence of the quality evaluation movement that involved most of the educational institutions worldwide, the Algerian Ministry of Higher Education, (MESRS) realised the acute need for the introduction of QA in the HE sector. As a result, in 2008, Algerian educational policymakers started discussions about the crucial role of QA in HEIs by holding conferences and meetings about this concern. Therefore, the CIAQES, which is a national committee for the implementation of quality assurance in higher education, was established in 2010 to ascertain the quality of education in Algerian educational institutions. This committee encouraged the development of quality cells or units at the level of each university as part of the implementation process of the QA mechanism in institutions. In fact, the QA system in Algeria is based on three processes: Internal QA, Self-evaluation Practices and External QA. (Saadi, 2019).

As far as learners are concerned, quality assurance can encourage them to be more involved in learning, share the responsibility for the learning process, and make the learning more transparent as well. Furthermore, learners would experience better learning since quality assurance makes them think better about the way they learn, helps them understand their rights and responsibilities, and makes them feel more valued, which helps them achieve better results (Quali-T, 2011).

As for teachers, quality assurance gives them feedback on their performance and makes them reconsider the way they teach. Besides, teachers would understand the expectations, have the support of planning tools, and care more about their professional development. Actually, quality assurance is a fundamental factor that triggers reflection upon the aims and learning outcomes, and it also plays an important role in raising the sense of responsibility among teachers, learners, and institutions to improve learning (Quali-T, 2011).

Owing to quality assurance systems, institutions make assumptions about the components of high-quality teaching and learning so as to afford learners the essentials to build high learning standards. They also ensure that they meet the needs of teachers, learners, and administrative and support staff. What is more, institutions develop a comprehensive vision about the quality of the teaching and learning process as well as the quality of teachers and learners in order to improve the situation. At last, institutions can promote their reputation and be more successful (Qual-T, 2011).

1.2.5 Quality Teaching in English Language Education

Teaching and learning are dynamic and unpredictable processes that require ongoing maintenance and development to meet the needs and achieve high outcomes. As a result, quality teaching and quality assurance are becoming of great interest in education, and English language teaching is no exception.

As far as English language teaching (henceforth, ELT) is concerned, it is not sufficient to merely display the developing trends of ELT in modern area. Rather, it calls for the necessity of fulfilling the aims of learners to become competent in real English communicative environments. This goal can be reached by helping learners to be effective and confident language users and to be independent and active in problem-

solving matters. Quality teaching in ELT must also help learners develop cooperation and ease of communication at workplace, besides being interactive thinkers and motivated for life-long learning process (Krsmanovic & Petrovic, 2009).

Discussions about quality teaching in ELT are often oriented toward the quality of teacher preparation. For a long time, teacher preparation in ELT was disregarded and, to some extent, failed to equip teachers with the necessary supplies to launch into the job. Nevertheless, the increasing demands and growing population of English language learners pushed policymakers to reconsider the importance of teacher education. Hence, a great deal of interest was directed towards English language teacher preparation and professional development. In so doing, further initiatives and new policies emerged in an attempt to improve teachers' quality in ELT.

Seemingly, lot of teachers find themselves unprepared enough to meet students' needs in spite of the opportunities they have to acquire knowledge and skills about teaching English. Swenn and Klink (2008: 227) claim that regardless of the professional education, institutions face challenges like "how to support the development of teacher identity, how to bridge the gap between theory and practice, how to find the balance between subject studies and pedagogical studies, how to contribute to a higher status of teachers and how to prepare them for the needs of 21st century". Taking that into account, the question that is raised is: who or what is to blame for the inadequate quality in ELT? (Téllez & Waxman, 2006). In order to find answers to this question, great efforts are being made continuously within the ELT periphery so as to determine the chasms and find resolutions. Consequently, educators, policymakers, and stakeholder all over the world are developing novel approaches and unprecedented initiatives wishing to improve the ELT teaching situation.

Quality Teaching for English Language Learners (QTELL) is an approach developed by the WestED organization that is tailored for institutions, teachers, and learners as an attempt to enhance teaching instruction so as to increase the quality of

teaching in ELT. The QTELL project is a professional development initiative that targets English language teachers and administrators in particular. It endeavours to enhance teachers' expertise as well as promote long-term academic and professional success.

Basically, QTELL arises from sociolinguistics and sociocultural theory, in which learners construct language competence in order to communicate meanings, which in turn accomplish social purposes (Alvarez et al., 2012). Therefore, the focus of QTELL is on language and content learning "rather than seeing students as limited by their status as English language learners" (Alvares et al., 2012: 03). On that account, discipline-specific professional development is provided to teachers for the sake of gaining knowledge to devise activities and tasks that engage students in interactions of rich academic purposes. QTELL is guided by five major principles (Walqui & Van Liar, 2010):

Principle	Description
	Promote deep disciplinary knowledge:
	 Develop central ideas in the discipline.
	* Establishing interconnections among central ideas of
	the discipline.
	* Deepen understanding of the idea over time.
	Engage students in generative disciplinary concepts and
Sustain Academic Rigor	skills:
in Teaching English	* Develop central understandings of central concepts.
Learners	* Construct explanations and arguments in the
	discipline.
	Engage students in generative cognitive skills:
	* Students combine facts and ideas to synthesise,
	evaluate and generalise.
	* Students solve problems and construct new meanings
	and understanding.
Hold High Expectations	Engage students in tasks that provide high challenge and
in Teaching English	high support:
Learners	* Tasks are academically challenging and engaging.
	* Scaffolds are provided to facilitate student

	 engagement in intellectual tasks. * Varied entry points are provided for instructional tasks. * Apprenticeship and increased participation over time are promoted. Engage students (and teacher) in the development of their own expertise: * Belief that all members of class community can achieve. * Climate of mutual respect that contributes to the achievement of all. Make criteria for quality work clear for all: * There are explicit criteria for what constitutes quality performance. * It is clear to student that it is necessary to take risks and work hard to master challenging academic work.
Engage Students in Quality Interactions	 Engage students in sustained interactions with teacher and peers: * Invite students' to go beyond brief, single responses and elaborate, illustrate and connect to interlocutors' ideas. Focus interactions on the construction of knowledge: * Urge students to focus on the coherence of their language * Encourage reasoning, application of ideas, argumentation, forming generalisations and asking questions.
Sustain a Language Focus	Promote language learning in meaningful contexts: * Develop disciplinary language explicitly. Promote disciplinary language use: * Discuss the characteristics of language and how specific instances of language work (social purpose, structure and process). Amplify rather than simplify communications: * Give rich and varied examples, looking at difficult concepts from several angles. Address specific language issues judiciously: * Focus student performance and corrective feedback on fluency, complexity or accuracy but not at the same time.

* Use a lessons. Curriculum * Use a lessons. * Use spir from am * Make co

Structure opportunities to scaffold learning.

- * Set long-term goals and benchmarks.
- * Use a problem-based approach with interrelated lessons.
- * Use spiralling progression to enable students move from ambiguity to increasing clarity.
- * Make connections between subject matter and students' reality.
- * Built curricula based on students' lives and experiences.

Table 1.1: The Principles of QTELL (Walqui and Van Liar, 2010)

Intrinsically, achieving quality in ELT, like in any other educational setting, does not solely rely on providing good teachers or better methods of instruction; it is also dependent on supervising and measuring the quality of teaching and learning itself as part of the QA system. For this reason, evaluation and assessment procedures can be visualized as the next stage that has a fundamental effect on determining, monitoring, and controlling the quality of the teaching process as well as the students' learning achievements.

1.3 Assessment in ELT

Assessment in education may be referred to by a variety of terminologies, such as evaluation, appraisal, measurement, and examination. It signifies the process of determining the progress of learning, skills, and academic readiness, as well as measuring the quality within educational settings. Assessment and evaluation play a significant role in building a sound educational infrastructure, as they are considered critical aspects in developing both teachers' and learners' abilities. Throughout assessment, teachers can receive valuable feedback about their teaching, learners examine themselves, and policymakers investigate the effectiveness of the design and implementation of the programme and the methods used in the institutions.

From a narrower standpoint, assessment is an essential tool for teachers to update their knowledge and promote their techniques of instruction. It prompts them to

conduct assessments about their teaching and be more self-reflective. Furthermore, evaluation procedures are said to reveal thorough information about what they have taught and define the strengths and weaknesses of the methods and techniques of teaching. Having said that, it is also fair to state that assessment and evaluation can be critical, in which increasing communication among teachers as well as between stakeholders is likely to enhance conversations and contributions that aim at adjusting the issues and thus raising the quality of teaching and learning. In a word, a well-designed teacher-evaluation process brings out direct and lasting effects on teaching quality (Srinivas, 2018).

ELT is highly dependent on assessment and evaluation processes in furtherance of achieving the best results, as they are crucial parts of the developmental cycle. In this line of thought, O'Malley and Valdez-Pierce (1996) state that evaluation in teaching English is a process of collecting, analysing and interpreting information about teaching and learning in order to make informed decisions that enhance student achievement and the success of the educational programs. Henceforth, the ELT periphery entails a continuous, up-to-date, and rigorous assessment process that would give rise to betterment and progress in returns.

1.3.1 Assessment Defined

Assessment is an umbrella term that covers a set of meanings visualized from an array of perspectives by different scholars and researchers (e.g., Brown, 2003; Robinson-Karpius, 2006; Fultcher et al., 2012; Fisher and Bandy, 2019). As a matter of course, this term implies any in-class task that allows teachers to collect feedback about their teaching in order to enhance their practices and refine their performance in general (Angelo, 2001). It also implies enhancing teaching and, thus, learners' performance (Sparks, 2005). From their perspectives, Stiggins & Chappius (2005) refer to it as any standardized test in the classroom. Moreover, assessment may also denote the procedures that teachers use to evaluate students' assignments (Harlen, 2007). In

simple terms, assessment is "a method of measuring a person's ability, knowledge, or performance in a given domain" (Brown, 2003: 03).

Assessment is a vital process in the scholarship of teaching and learning. Nevertheless, it is oftentimes misconceived and interfused with other cognate terminologies such as evaluation and testing. To put it simply, assessment implies the process of collecting and analyzing information about identified aspects of language in order to come up with generalized judgments about the learner's performance. Brown (2003: 04) defines assessment as "an ongoing process that encompasses a much wider domain". That is to say, all skills (listening, reading, speaking and writing) are assessed by teachers during the class, and this involves the subconscious assessment of any comment or response, any piece of writing, and even throughout the speaking and writing activities so as to gauge students' capabilities. Furthermore, assessment refers to a continual appraisal process that centers on individual language learners.

In overall terms, success in assessment reports to the evaluator the extent of the learners' development, while failure indicates the teacher's low performance (Hamidi, 2010). In contrast, it is important to note that the teacher is not solely to blame in the case of failure, as the student's performance does not depend on the teacher alone.

Evaluation, on the other hand, implies an inclusive judgment of the process of teaching and learning as well as the progress of the curriculum. It consists of obtaining feedback about the general learning programme and the teaching process at the end of term. Additionally, evaluation is carried out in order to investigate the effectiveness of the learning program and instruction with regard to superior authorities. Ultimately, evaluation is concerned with the examination of the input, process and output of teaching procedures (Hamidi, 2010).

Practically, testing and assessment share the goal of determining students' language learning ability. However, tests are the standardized procedures devised under administrative supervision that students undergo at a predefined time in a

curriculum "knowing that their responses are measured and evaluated" (Brown, 2003: 04). Thus, testing is one of the many procedures of assessment (Brown, 2003). In the same line of thought Robinson-Karpius (2006) maintain that testing is only one component of assessment; which is an all-encompassing process that serves to judge the teaching and learning performance through various elements. Assessment in language education consists of two main approaches: product-oriented assessment and process-oriented assessment.

1.3.1.1 Product-Oriented Assessment

Product-oriented assessment is one that is based on measuring learners' performance through a finalized product. Simply put, it is particularly used to assess what students know and can do at a particular stage of learning and to determine the extent to which they are successful in achieving the set goals or objectives (Fulcher & Davidson, 2007). In this context, Hamidi (2010) asserts that this type of assessment serves to identify isolated, discrete, and decontextualized skills. He also believes that it is useful to measure proficiency or competency in a specific skill.

1.3.1.2 Process-Oriented Assessment

Process-oriented assessment emphasizes the development of the learning process over time. In other words, it looks at how well students do, i.e., qualitative assessment. Actually, this type of assessment is devoted to highlighting problem-solving, decision-making, analysing and interpreting information (Hamidi, 2010). Hence, it is a tool to determine what stage students have reached in their learning process toward their goals and, thence, take decisions about the coming phases. In this respect, Hancock (1994) argues that process-oriented assessment is a continuing assessment method requiring collaboration between students and teachers alike in order to establish a comprehensive insight into the learning process.

In general, assessment is a process that is based on compiling evidence about one's skills, abilities, and competences. Still, it helps identify the qualities and imperfections of educational stakeholders, namely, teachers, learners, policies of instruction, and on top of that, determine the validity of the educational programmes.

1.3.2 Types of Assessment

Egelson and McColskey (1998: 5) posit that "if teachers and schools are to continually improve the quality of the instructional programme, then an evaluation system designed to encourage individual teacher growth is not a luxury, but a necessity". They claimed that assessment of teaching can be done in two ways: formative and summative. By reference to their words, formative assessment is "a system of feedback for teachers that is designed to help them improve on an ongoing basis". As for summative assessment, they perceive it as "a system of feedback for teachers that is designed to measure their teaching competence" (Egelson and McColsky, 1998: 5). The following figure illustrates the characteristics of both functions of evaluation.

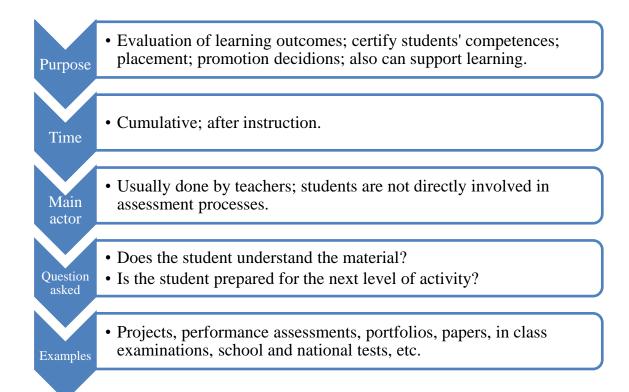


Figure 1.2: Characteristics of Summative Assessment (Dixon and Worrel, 2016)

Sjögren (2009) believes that summative assessment, also known as assessment of learning, is an extrinsic motivation for learners as long as students consider marks and diplomas as a reward for their performance and efforts. Accordingly, this type aims to motivate students, provide information about their performance, certify learning, and award qualifications. Essentially, summative assessment implies all kinds of standardized assessment methods, which makes it more reliable and constant. Dixon and Worrel (2016) set the major characteristics of summative assessment. According to them, the purpose lies in defining the learning outcomes, students' competences, and promoting the decisions that support learning. Furthermore, summative assessment is a cumulative process of evaluation carried out by the teacher after instruction with a view to finding answers to questions like, "Does the student understand the material?" and "Is he ready for the next level of activity?"

On the flip side, summative assessment may result in what is described as the "backwash effect" (Baartman et al., 2006). That is to say, summative assessment may

control what students are going to learn and orient them toward specific areas of learning; consequently, this impacts students' motivation and eagerness to learn. It also encourages surface learning approach and reduces students' focus on long-term goals (Klapp, 2018). On the grounds of this, the assessment process should be appropriately devoted to supporting learning instead of achieving a grade (Sjõgren, 2009).

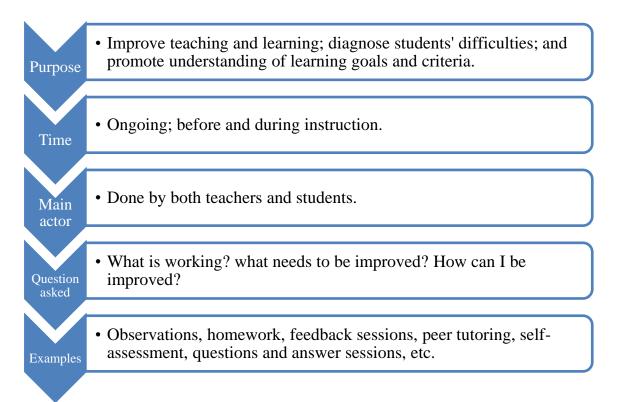


Figure 1.3: Characteristics of Formative Assessment (Dixon and Worrel, 2016)

Formative assessment, or assessment for learning, is the second type, which is believed to provide "direct support to students for improving their learning and teachers' practices" (SjÕgren, 2009: 24). Hence, formative assessment entails all evaluative aspects that are deemed to improve students' competence and performance, in addition to enhancing teachers' practices. The purpose of formative assessment is to diagnose students' difficulties, improve learning and teaching, and promote understanding of learning goals. It is an on-going process done by teachers and

students alike that seeks to examine the teaching and learning process and find ways to improve the situation (Dixon and Worrel, 2016).

1.3.3 The Significance of Assessment in ELT

In the last twenty years, assessment in education has gained increasing interest. Research and publications related to assessment demonstrate that this process is overemphasised because it serves to enhance self-regulated learning rather than just act as an instrument of measurement. Bryan and Clegg (2006: 1) maintain that "assessment became the currency with which we trade; the better the trade, the bigger and better the reward". Therefore, assessment is central to the teaching and learning process because it enables instructors to strategically evaluate the effectiveness of their performance by measuring learners' achievement and determining whether students are developing the desired knowledge and skills.

It is a truism that assessment in ELT has a worthwhile effect on the learning process. For one reason or another, assessment frames learning and guides all aspects of learning behaviour. In this respect, it is fair to assert that teaching, learning, and assessment are inextricably related because instructors and teachers can have evidence about students' progress and diagnose the competencies and skills they possess. In addition, assessment is likely to provide them feedback that helps them determine students' strengths and weaknesses (Taras, 2005). Based on this, they will be able to identify the needs of students in terms of learning goals and objectives.

Furthermore, assessment is viewed as a means to raise the effectiveness of language teaching and learning process (Sparks, 2005). So to speak, assessors, who are teachers most of the time, obtain feedback throughout assessment procedures, which allows them to have in-depth insights about what is concretely happening inside their classes; the thing that they cannot do without conducting procedures of measurement and judgment. More than that, teachers will be able to distinguish the learners who have achieved the objectives and determine the achievements of each one of them and

based on these data, teachers make a variety of decisions about students, instruction, and teaching methods, seeking to improve learning. In the same line of thought, Bryan & Clegg (2006) claim that the core of assessment in education does not lie solely in measuring abilities but rather that its role and purpose is to enhance and enable self-regulated learning and judgments.

It is undeniable that assessment is significant to provide feedback about learners and their performance, yet it is also important for constructing better awareness about the teaching process itself. In other words, teachers' performance can also be evaluated through assessment; in this way, one can figure out what teachers have accomplished with their teaching strategies and whether they are successful in disseminating knowledge. Actually, conscientious and diligent teachers are continuously undertaking this type of evaluation so as to localise themselves regarding the standards of high-quality teaching. Moreover, they become able to identify the effective teaching methods that work better with their learners' learning styles, and avoid the practices that do not match well with them. Thus, they opt for differing ways of instruction to rectify their imperfections and simultaneously enhance their teaching.

1.3.4 Assessment of Teaching

The salient way to determine the effectiveness of teaching in any educational setting is through assessment and evaluation. In fact, assessment of teaching is one of the systematic procedures that fit the need to review and control teachers' performance in general. It helps mitigate the weaknesses and negative aspects of the teaching and learning process. Consequently, this procedure is meant to reconstruct teachers' professional growth, learners' productivity, the content of courses, and the teaching and learning methodologies.

Ellett and Teddlie (2003: 103) declare that "teachers were largely evaluated on their personal characteristics rather than evaluation procedures informed by a knowledge base about effective teaching and learning". In this respect, teacher

evaluation has long been used for purposes such as accountability, promotion of teachers, and guiding the professional development of teachers. Nevertheless, in recent years, the notion of teacher evaluation started to gain interest in a remarkable manner due to the emphasis placed on quality assurance in education as well as the shift towards emphasizing the methods that improve teachers' effectiveness instead of focusing on their personal side. This is evident in the constant and incessant growth in the sophistication and innovativeness of evaluation measures and programmes. In effect, a number of factors drive this growth: first, the government's efforts to improve the educational state and standards; second, the variation of teachers in terms of competence and performance; and, third, the increasing importance of evaluation in terms of improving teacher effectiveness.

Admittedly, assessment of teaching and teacher effectiveness is becoming increasingly salient in all educational sectors. According to Taylor & Tyler (2012), assessment of teaching is a critical factor that increases teachers' productivity and enhances their abilities to monitor and improve learners' achievement growth as well. Researchers and policymakers claim that "the only way to adjust teacher distribution for the better is to gather information on individual productivity through evaluation" (Taylor & Tyler, 2012: 2). That is to say, teacher assessment is a way to set and refine teachers' professional development based on the feedback obtained from the evaluation process (Sawchuk, 2015).

1.3.5 The Purpose of Teacher Evaluation

Assessment and evaluation are concepts that are strictly related to the systems of education all over the world that serve to measure, define, and peruse the quality of the teaching and learning process and then make decisions based on the feedback obtained in order to mend the chasms as well as improve the teaching situation in general. It seems wiser to be aware that the quality of teachers plays a sensitive role in effective

and lifelong learning. Consequently, much attention has been directed towards the evaluation of teachers since they are the major determinants of quality.

Teacher evaluation may serve to determine the productivity of teaching, which in turn helps set decisions regarding the state of teachers' performance, teaching methods, and learners' progress. To put it another way, teacher evaluation is meant to shape teaching and learning as it reflects how teaching is going and what aspects of teaching necessitate extra time and efforts (Siarova et al., 2017). Respectively, relevant changes in teaching methods and priorities would be incorporated in order to cater to students' learning through tailoring and reorienting teachers' practices and curriculum focus (Pepper, 2013).

The purpose of teacher evaluation is twofold. First, summative assessment and quality assurance aim to measure the extent to which teachers are effective in promoting students' learning. Second, formative assessment and professional development determine the strengths and weaknesses of teachers in order to improve their teaching performance through further professional development (Isoré, 2009).

Related to this, Santiago & Benavides (2009) note that the main objectives of teacher evaluation are the improvement function and the accountability function. Evaluation of improvement, as its name implies, provide teachers with feedback that assists them in determining the strengths and weaknesses of their performance with the aim of improving the teaching process through professional development. Whereas the accountability function of the evaluation of teachers involves the determination of teachers' accountability, perseverance, and consistency in order to achieve the best learning results.

1.3.6 Teaching Evaluation Framework

A considerable concern is afforded by educators, stakeholders, and policymakers to the significant role of teaching quality in the enhancement of learning

and learners' performance. Hence, attention has been directed to the evaluation of teaching as a strategy that should be emphatically integrated within the educational system in order to contribute to teachers' professional growth. Accordingly, the development and planning of teacher evaluation procedures are of great importance and require scrutiny based on the goals of the evaluation process in order to yield a sound, dependable, and effective decisions.

Ideally, Santiago and Benavides (2009: 11) assume that in order to conduct a useful and effective teacher assessment, several aspects should be taken into consideration, such as "the accuracy of measurement, the inclusion of all dimensions of what is meant to be measured, consistency of the goals with the feedback exercise, adaptations to the needs, effectiveness and feasibility". They claim that the establishment of a comprehensive framework for teacher evaluation requires the following:

- It needs to be devised in accordance with the objectives of the overall education system and the approach to its development.
- The purpose of the evaluation procedure must be clearly defined, and set accurately in order for the intended aspects to be adjusted and ameliorated.
- Educational actors, quality assurance responsibles, teachers, and students need to be aware of each other's responsibilities in the process of evaluation in order to ensure accountability and improvement.
- A reflection on the teacher evaluation process with regard to other elements of evaluation like student assessment and system-level evaluation.

Overall, the teacher evaluation framework is meant to help construct a knowledge-rich teaching profession. That is to say, teachers need to expand their role as researchers by engaging in the new knowledge, becoming more vivid, striving to improve their abilities, and benefiting from the support structure.

For many years, the assessment of teaching was confined solely to classroom observation and the visits of principals. However, the drastic changes that occurred at the level of education as a result of globalisation and the new era of the twenty-first century necessitate the development of new methods to evaluate the teaching situation and the performance of teachers. Accordingly, a number of methods and information sources came into existence. Hereunder are the main teacher evaluation strategies proposed by Borg (2018), including: classroom observation, teacher self-evaluation, teacher portfolios, professional development, students' outcomes (value-added models), and surveys (student evaluations of teaching).

1. Classroom Observation

The best way to diagnose a professional performance is to observe the performer's actions in a real-life situation. Thus, in the field of teacher evaluation, classroom observation is the most common source of information. Mouton & Marais (1990) argue that observation is likely to put into focus the link between the theoretical assumptions and what is tangible in the real situation. Therefore, observation can be defined as the systematic process of observing a teacher's behaviour in the classroom. Besides, it provides direct evidence of what teachers do, which is why it is considered a key component of a performance-based teacher evaluation system (Borg, 2018). On this account, classroom observation is considered the key element for effective teacher evaluation and the most important information source used in most teacher as well as learner evaluation procedures all over the world.

2. Teacher Self-Evaluation

Self-evaluation is a significant concept regarding assessment and evaluation in education. This type of assessment falls under the formative evaluation category, in which teachers constantly seek feedback on their knowledge as well as their teaching process. Thus, they constantly engage in evaluative processes for the sake of detecting the gaps in their teaching and come up with differing ways of instruction in order to

improve their performance. In reality, teacher self-evaluation has proven its positive effect in most educational systems to the point that it is used as a formal component of teacher evaluation. In light of this, Ross and Bruce (2005) put forward a self-evaluation model that is based on three processes. First, teachers engage in self-observation sessions, where they seek to determine the characteristics and features of their teaching that reflect success and effectiveness based on their subjective standards. Second, they make self-judgements about themselves with regard to the pre-defined goals and objectives and probe whether they have been met. Third, teachers at this stage are required to measure the extent to which their self-reactions and interpretations have brought about satisfying feedback about their performance.

3. Teacher Portfolio

A teacher's portfolio is a reflective process that represents the teacher's style of instruction and key features of his teaching. O'Malley and Pierce (1996) define portfolio assessment as a systematic process used to provide evidence on teachers' performance. Portfolios are said to be devised according to a set of elements such as lesson plans, teaching materials, samples of students' work and discussion, teachers' self-reported questionnaires, and reflective sheets (Isoré, 2009). On his part, Shulman (1998: 37), a pioneer in the use of portfolios in teaching, points out that "a teaching portfolio is the structured, documentary history of a set of coached or mentored acts of teaching, substantiated by a sample of students' portfolios and fully realised only through reflective writing, deliberation, and conversation". He adds, "I think all of those parts are necessary – but I may be wrong". Portfolios are, in effect, viewed as a supplement to teacher self-evaluation.

4. Professional Development

Professional development is defined as "a process activity designed to enrich professional knowledge, skills and attiitudes of teachers to improve the learning of students" (Guskey, 2000: 16). In effect, it is regarded as a fundamental component for

the development and enhancement of teaching quality, as it can be regarded as a means of self-evaluation by providing teachers with opportunities to measure their accomplishments and ensure that they have met the teaching objectives. Hereby, the importance of professional development has been emphasised for two reasons: First, the rapid development and variety of the knowledge base of education throughout time means that teachers need to keep updated with the new knowledge in their subject area. Second, the changes that occur at the level of the structure of schools or organisations bring about new roles and responsibilities for teachers (Guskey, 2000). This was already indicated by Little (1993), who points out that the main areas of concern are the curriculum, subject matter, school organisation, and assessment.

In this specific context, it is worth noting that professional development needs to be of high quality and tied to teachers' identified needs in order to produce effective results. Along this path, Desimone (2009: 183) posits that, according to recent studies, effective professional development should encompass the following characteristics:

- *Content focus*: it stresses the linkage of activities with the subject matter content and the way students learn that content, along with the enhancement of teachers' knowledge, skills, and achievements. It is believed to be the most influential characteristic.
- Active learning: effective professional development is likely to steer teachers towards taking part in active learning (Garet et al., 2001). This implies observing expert teachers or being observed, then discussing feedback, as well as reviewing students' work in the topic area and conducting discussions.
- *Coherence*: the correspondence of teacher professional development within their knowledge and beliefs.
- *Duration*: intellectual and pedagogical diversity necessitates professional development activities that are adequate and reasonable in length. This

translates into the span of time over which the activity is spread, as well as the number of hours spent during the process of professional development.

 Collective participation: according to recent studies, the last characteristic of high-quality professional development is collective participation. That is to say, teachers of the same institution, grade, or department participate in professional development activities so as to yield potential interaction and discourse and enhance the process of teacher development in general.

In similar vein, Desimone (2009) puts forward a basic model, shown in Figure 1.4, and recommends it to be used in all empirical causal studies of professional development. It demonstrates the relationship between the key features of professional development, teacher knowledge and beliefs, classroom practice and learners' achievements.

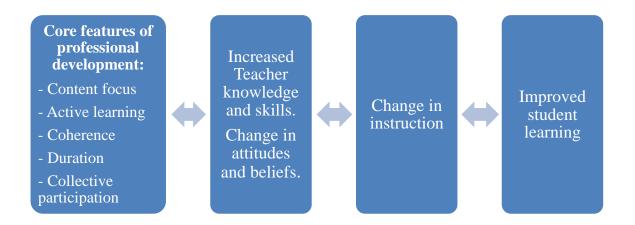


Figure 1.4: Conceptual Framework for Studying the Effect of Professional Development on Teachers and Students (Desimone 2009: 185).

5. Value-Added Models

Despite the fact that student outcomes are not commonly used as sources of teacher evaluation, value-added measures are said to be representative of learners' outcomes with regard to test results, which in turn reflect the effect of teachers on their

students over the duration of teaching. Amrein-Beardsley and Holloway (2017) assume that "value-added models are intended to objectively measure the amount of value that a teacher adds to students' learning and achievement from one year to the next". In simple terms, it is a sophisticated statistical algorithm and standardised test results combined with other information about students that may influence students' academic achievement, such as student-level demographics (race, poverty, English language proficiency), student-level variables (attendance, suspension, retention), and other classroom-level variables (class size, average prior achievement), which serve to identify the extent to which a teacher contributes in students' academic growth. It must be noted that value-added models are extremely important in teacher evaluation procedures as they link teachers' practice with students' outcomes.

6. Surveys

Surveys are another evaluation instrument commonly used in teacher evaluation at the tertiary level, which is based on collecting students' views and information about teachers' instruction as well. As a matter of fact, there have been a handful of studies about student perception surveys recently. Thus, researchers advocate the effectiveness of this method and highly recommend the use of students' feedback as a means to evaluate teachers, as "survey results can accurately predict student achievement gain... student feedback can be used as a reliable measure of teacher effectiveness" (Hanover, 2013: 5). It is important to note that this is only for formative evaluation and not for high-stakes performance. Various templates of student surveys have been developed and maintained in universities worldwide, such as:

➤ Student Evaluation of Educational Quality (SEEQ): It is the most widely used questionnaire based on 35 questions intended to reflect on nine aspects of effective teaching: learning/value, enthusiasm, organisation, group interaction, individual rapport, breadth of courage, examination and grading, assignments, and workload/difficulty. In this respect, Marsh (2007) confirms the validity and

reliability of student evaluation of educational quality, which has been in use for over 15 years.

- Learning Improvement Strategies Questionnaire (LISQ,): It is a means to keep tabs on the quality of courses during the semester. It was revealed that five strategies can be followed so as to improve the quality of a course: motivate students to learn, teach in ways that deepen understanding, take teaching responsibilities very seriously, assess students' learning impartially and provide environments that encourage learning. (Donald, 1997).
- ➤ Students Course Experience Questionnaire (SCEQ,): It is a survey used to monitor and improve the quality of the curriculum. It is also employed for evaluating and enhancing the quality of teaching in universities, supervising institutional performance, informing student choice, and raising the accountability of higher education (McInnis et al., 2001). CEQ is comprised of 25 items that are organised according to six scales: good teaching scale, clear goals and standards scale, appropriate workload scale, appropriate assessment scale, generic skills scale, and overall satisfaction item.
- Formative Feedback Questionnaire (FFQ): it is a survey that enables the staff to devise questions according to their needs and preferences. They are provided with an item bank of varied features from which they can select 20.

It is worth mentioning that the student evaluation of educational quality (SEEQ) and learning improvement strategies questionnaire (LISQ) have a 9-point Likert scale, while the formative feedback questionnaire (FFQ) has a 7-point scale, and the student course experience questionnaire (SCEQ) has a 5-point Likert scale (Brown and Frielick, 2000).

1.4 Assessment in English for Specific Purposes

Due to the fact that English has become the global language and the language of science and technology, it becomes necessary for learners of different disciplines to learn English. As a result, English language teaching had to shift its focus toward specific target environments rather than focusing on general English only. Hence, English for Specific Purposes (hereinafter, ESP) emerged as a critical area pertaining to English teaching and learning at the tertiary level.

ESP is an approach to teaching English as a foreign language for learners in specific professional fields in higher education. It is practically devoted to the specific needs and requirements of students from various disciplines, with each ESP course being directly related to the field under study. Indeed, ESP teachers face a variety of challenges and constrains throughout their teaching careers. In this respect, apart from the difficulties that teachers encounter within their daunting mission, ESP teachers hold extra responsibilities regarding needs analysis, course and syllabus design, the selection of teaching methods that serve to achieve the objectives, the choice of vocabulary and language functions, as well as assessment and evaluation procedures. Yet, before discussing assessment in the ESP sphere, it would seem important to know what is meant by ESP teaching.

1.4.1 Teaching in ESP

ESP teaching is primarily based on the premise that students have a great need to learn English since it plays a critical role in their future careers. Accordingly, the content and purpose of the ESP course should meet the requirements of their future jobs. In this vein, Kennedy and Bolitho (1984: 2) postulate that "given a group of learners with a specific purpose in learning English, it would seem logical in a learner-centred approach to base a course on that purpose and on the needs of the learner in his situation". Thus, students are to raise their linguistic competences and

awareness of English in accordance with the specific communicative needs of their field of study.

According to Strevens (1978: 90), "ESP courses are those in which the aims and the content are determined, principally or wholly, not by criteria of general education but by functional and practical English language requirements of the learner". Thence, ESP courses are narrower and more focused than general English courses. Similarly, Basterkman (2006) comes to the belief that ESP is a 'goal-oriented' process in which the linguistic repertoire is built with reference to the subject-specific discipline. Hence, the language that ESP learners acquire should permit them to communicate effectively in their field of study or occupational environment.

Based upon the abovementioned definitions, it is quite logical to infer that teaching ESP requires special demands and preparation from ESP practitioners. As a case in point, Basturkman (2010) claims that teachers in ESP contexts could find themselves dealing with situations, in which they have no prior knowledge or experience with the content they teach. They may even have very limited information with regard to the students in that specific field of study.

What first comes to mind is how ESP teachers were prepared and how ESP teacher education affects their productivity. The review of literature shows that a handful of teachers were subjected to specific kinds of training, while the majority had general ELT preparation only. Some researchers support the idea that ELT and ESP share the same aim, wherein they are concerned with developing communicative competence in the student (Ellis, 1996). Nevertheless, Basturkmen (2010) argues that there are significant differences between ESP and ELT. In fact, language teaching encompasses internal and external goals. The former is devoted to educational aims in the classroom, and the latter serves all kinds of uses outside the classroom (Cook, 2002). Thus, ESP is included within the external goals category since it is

fundamentally concerned with academic, professional or occupational purposes, while, in parallel, ELT focuses on linguistic and communicative goals.

ESP tends to focus on circumstances where learners need to use the language either for their studies or at workplace. Therefore, the first and foremost step of any ESP course is the determination of the language-based objectives as well as investigating learners' needs with regard to the target occupation or specific field of study (Basturkmen, 2010). Furthermore, teaching ESP requires teachers to know how to design courses in addition to being able to analyse and describe specific texts. All this, taking into consideration the limited time devoted to these courses. In practice, designing an ESP course is not an easy task for instructors, and it requires the careful accomplishment of different steps. The following sets forth the main considerations about ESP teaching.

Needs Analysis

Needs analysis is at the top of the list of main considerations in teaching ESP. The widespread assumption about ESP is that it aims to teach learners the language and communication skills that they need in a specific discipline or occupation. Hence, practitioners or course designers engage in needs analysis in order to identify the needs and objectives of the students they teach. This process is considered the cornerstone of the ESP course. That is to say, after defining the characteristics of the specific language and skills that learners need in the target situation, it will be much easier to determine and refine the appropriate ESP course that meets the requirements and objectives. The needs analysis data can also be used to evaluate learners and learning at the end of the course (Basturkmen, 2010).

Chambers (1980) perceived that needs analysis entails the creation of communicative needs derived from target situation analysis. In the same line of thought, Boswood (1990:59) argues that "needs analysis originally focused on the analysis of the target situation". Howbeit, later on, the concept expanded its meaning

to encompass the student's goals and preferences about the methodology and learning styles; it also included the views of other stakeholders in the design of courses. West (1997: 70) goes on to argue that "needs analysis is a journey to describe the elements involved" in which the "necessities and objective needs" represent the "destination of the students' journey". To put it simply, needs analysis is the process of course development, in which emphasis is put on the language and skills that learners need for their studies or profession (Basturkmen, 2010). In this process, learners' actual language competences, their perceptions of their needs, and the constraints of the teaching in context are taken into account. Hence, needs analysis is a pre-course process that helps ESP teachers determine the appropriate content and methodology to be used in the course, which correspond with the needs of learners; furthermore, it plays a crucial role in refining and improving the course throughout time. According to Basturkmen (2010: 19), the process of needs analysis involves the following:

- *Target situation analysis*: identification of tasks, activities and skills learners are or will be using English for; what the learner should ideally know and be able to do.
- *Discourse analysis*: descriptions of the language used in the above.
- Present situation analysis: determining what the learners know and do not know as well as what they can and cannot do in relation to the demands of the target situation.
- Learner factor analysis: identification of learner factors such as their motivation, how they learn and their perceptions of their needs
- *Teaching context analysis*: identification of factors related to the environment in which the course will run. Consideration of what, realistically, the ESP course and teacher can offer.

© ESP Curriculum and Course Design

ESP course design is practically based on the findings of need analysis (Bolitho and Kennedy, 1984; Hutshinson and Waters, 1987; Dudley-Evan and St John, 1998; Basturkmen, 2010). Once practitioners gather information about the target situation and define the specific needs and wants of learners via the needs analysis process, they move on to the next step, which is curriculum and course design.

Curriculum development implies the processes of identifying learners' needs, developing a programme that facilitates meeting the aims and objectives of students, planning an appropriate syllabus, course structure, the methods and materials needed for the ESP course, and then evaluating the programme that was created through these processes (Richards, 2001). In this light, Brown (1989: 235) suggests a model for language curriculum development as shown in figure 1.5. He believes that this model encompasses all language curriculum development, including ESP. The model is displayed as follows:

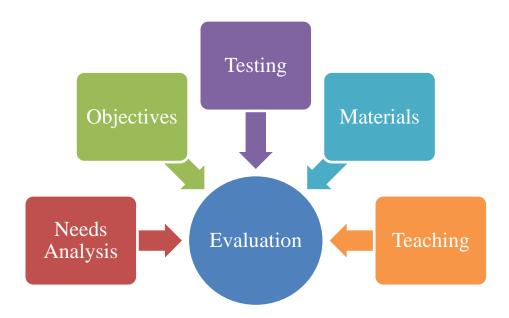


Figure 1.5: Brown's Language Curriculum Development Model (Bown, 1989: 235)

In his model, Brown (1989) argues that curriculum development is an ongoing cycle that is based on six components: needs analysis, objectives, testing, materials, teaching, and evaluation. He perceives it as a systematic approach that is likely to produce the language content that is needed to fulfil the needs and requirements. Furthermore, it can also help to adapt the existing courses to fit new conditions and changes.

As illustrated in Browns' model above, the six components are closely related and interrelated, wherein each element of the cycle affects the other elements and thus influences the whole process. Moreover, the cycle demonstrates that needs analysis is the key to the course and is going to determine the remaining components related to course development. This is to say, through needs analysis teachers can define learners' needs and then decide about the objectives to be reached during the course. After that comes testing and providing the appropriate assessment procedures, which are essentially devised based on the objectives of the course. Afterwards, the materials' selection and teaching come as a result of the feedback obtained from the needs analysis, objectives, and testing. What is worth noting is that evaluation, in particular continuous evaluation, has the lion's share in this model. In light of this, Brown (1989) posits that evaluation is the pivotal component that links the remaining components of course development. This signifies that assessment and evaluation play a central role in achieving success and effectiveness in the teaching and learning process.

⊘ Effectiveness of ESP Teaching

One of the current burning questions is whether ESP programmes are more successful and effective than those that are aimed at general language proficiency (Master, 2005). Hence, the extent to which ESP students develop the communicative skills they need in their field of study or professional situation. Richards (2001: 28) supports this by claiming that "in contrast to students learning English for general purposes, for whom mastery of language for its own sake or in order to pass a general

examination is the primary goal, ESP student is usually studying English in order to carry out a particular goal".

In fact, ESP is based on predefined characteristics and methodologies that are drawn from a wide range of research, covering a variety of disciplines and research fields. On account of this, Dudley-Evans and St. John (1998: 4) established a set of characteristics that determine the requisites of ESP teaching. They are summed up in the following table.

Characteristics	Description		
Absolute	 ESP is designed to meet specific needs of the learner. ESP makes use of the underlying methodology and activities of the discipline it serves. ESP is centred on the language (grammar, lexis, register), skills, discourse and genre appropriate to these activities. 		
Variable	 ESP may be related to or designed for specific disciplines. ESP may use, in specific teaching situations, a different methodology from that of general English. 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 for learners at secondary school level. ESP is generally designed for intermediate or advanced students. Most ESP courses assume some basic knowledge of the language system but it can be used with beginners. 		

Table 1.2: Characteristics of ESP Course (Dudley-Evans and St John, 1998: 4)

The success of ESP is measured by whether it produces students who are able to practise English effectively in real-life situations and build a solid familiarity with the language that they need in their studies and job communications. Therefore, a large part of the responsibility falls on ESP teachers. Their significant roles lie in the

diligence and efforts they make so as to take control over the factors that serve the effectiveness and success of ESP. Basically, teaching ESP must comply with the methodology and tasks, which construct the language skills (grammar, lexis, register, skills, discourse, and genres) that learners need for their target purposes (Dudley-Evans and St John, 1998). This would, actually, raise students' motivation toward learning English in accordance with their specialties, since they find themselves dealing with the language that serves their needs, which is also related to a familiar context.

In an attempt to figure out the effectiveness of ESP teaching, Song (2006) conducts an investigation comparing two ESL groups at the same point in time, one receiving content-based instruction while the other group received non-content linked instruction. Results reveal that students receiving content-based instruction attained remarkable results and improved their ESL competence compared to students who received non-content linked instruction.

Presumably, learners are likely to experience a tendency toward the course that is, more or less, linked to their field of study. Therefore, and not surprisingly, ESP courses that are devoted to specific discipline content help students learn English in a vivid environment, which will raise their interest and motivation towards learning (Bastukmen, 2010). In this regard, students are more likely to improve their English language acquisition when learning is related to their interests and areas of study.

1.4.2 Assessment in ESP

Assessment in ESP is, in principle, no different from other areas of language assessment. Still, it takes account of the characteristics of the assessed individuals in terms of knowledge, personality and educational context of specific purpose language use (Paltridge & Starfield, 2013). In other words, assessment in ESP seeks to reflect a specific area of language; this highlights three qualities of specific purpose language. First, the context controls the language use and register. Second, specific purpose language is precise. Third, there exists an interaction between specific purpose

language and specific purpose background knowledge (Douglas, 2013). That translates the variation between the differing disciplines and specialties.

The assessment of ESP students' language development is inextricably tied to the broader goal of specialised education, which is to provide students with the abilities, knowledge, and experience necessary to perform effectively in a professional setting. Focusing on English language learning practises and evaluation methods in particular will help to ensure that they are appropriate criteria for judging linguistic proficiency in a given environment (Rus, 2019). Similarly, Stoica (2006) maintains that assessment in ESP aims at measuring the mastery of essential skills and knowledge, measuring improvement over time, identifying learners' weaknesses and areas of difficulty, assessing the methods and techniques of instruction, judging the quality and efficiency of courses, and motivating students to learn and improve their competencies.

Language instructors can be consistent with the specific purpose of the educational context by choosing appropriate assessment techniques and activities. Linguistic competence is obviously conceived in the otherwise traditional framework of the language skills (reading, writing, listening, and speaking). In this regard, Lee (2017) coined the new term "assessment as learning" and considers it a subset of assessment for learning. For him, assessment as learning refers to a more accurate conceptualisation of assessment in ESP.

The learner is considered to play a key role in assessment as the connecting component between the assessment and the learning process. Besides, assessment for learning and assessment as learning are related, in which assessment as learning stresses the importance of developing students' capacity to become their own assessors over time and encourages students to keep track of and exercise self-regulation over their thought processes. Likewise, students take an active part in their learning, utilise assessment data to self-assess and self-monitor their learning progress, reflect on their

learning, and alter their thinking to acquire deeper comprehension and develop their learning.

Actually, this kind of assessment is crucial for ESP learners since they require the ability and the environment to autonomously reinforce knowledge, develop confidence, engage in activities, and build on strengths that will progressively make them comfortable using English in their target situation. Moreover, in ESP, performance is evaluated against clear and measurable criteria, unlike when teaching general English language. Assessment as learning is a technique that assesses a student's development in English abilities against a clearly defined set of standards imposed by a given professional environment. Typically, this comes with easily recognised objectives that assist students in setting their own linguistic goals.

Until very recently, assessment and testing in ESP have been neglected areas of work. A minimum of attention has been paid to course evaluation or test development. Accordingly, very limited research, books and articles pertaining to assessment in specific purpose language existed. Furthermore, the emphasis and innovative considerations were steered toward curricula, syllabuses and classrooms only, which took into consideration material design and teacher training (Chamberlain & Baumgardner, 1988). ESP testing is defined by Douglas (2000: 19) as follows:

specific purpose language test is one in which test content and methods are derived from an analysis of a specific purpose target language use situation, so that test tasks and content are authentically representative of tasks in the target situation, allowing for an interaction between the test taker's language ability and specific purpose content knowledge, on the one hand, and the test tasks, on the other hand. Such a test allows us to make inferences about a test taker's capacity to use language in the specific purpose domain.

ESP courses, for instance, are generally provided as service courses at universities. Consequently, the primary goal of students is to pass the examination. Hence, for students, "the examination is a hurdle to be overcome by hook or by crook" (Chamberlain & Baumgardner, 1988), since evaluation is crucial in their academic study or even for their future employment. Thus, it is a truism to assert that assessment and testing have a strong impact on ESP teaching and learning, respectively.

1.4.2.1 Aspects of ESP Test Design

A distinction between specific language assessment and general purpose assessment can be made based on two main aspects: the authenticity of the task and the interaction between language knowledge and specific purpose content knowledge (Douglas, 2002). He adds that ESP assessment depends largely on the criteria of the target language use situation. That translates as "the pragmatic concept of language in use and the concept of indigenous assessment criteria" (Douglas, 2001: 173). On the other side, Alderson and Banerjee (2001) claim that assessments that rely on in-depth analysis of the target language use situation can be time-consuming and expensive to produce. Therefore, an appropriate ESP assessment should be devised in conformity with the tasks that learners proceed with in the target situation, that is, the ones they perform in the class (Gnutzmann, 2009). What is more, successful ESP tests call for the involvement of experts in the field as well as subject specialists without neglecting the positive effect of autonomy throughout the conduct of students' self-assessment and peer assessment.

Practically, there are three aspects to ESP test design: test content, test method and test validation (Chamberlain & Baumgardner, 1988). In fact, the cornerstone of any ESP test is validity, which implies the extent to which a produced test is valid to measure what it is intended to measure. Despite this, Chamberlain & Baumgardner (1988: 90) assert that "we have no way of knowing whether our tests are valid from a content, construct or face validity. The likely implication of this for test design is that

our ESP test design might have to be performance oriented... and they will have to be direct rather than indirect tests use". Based on what is said, the effectiveness of tests in the ESP periphery should be based on the premise of assessing language use. Besides, tests should be direct. A direct test of writing ability, for example, is a task of writing skills that is subjectively judged by assessors, whereas indirect tests can take the form of a multiple-choice test or an error detection task.

ESP test methods and content must take account of the recent innovations and developments in language testing. Nowadays, specific language testing takes concerns about realistic texts and the authentic purposes for language use into account. Hence, a variety of methods can be opted for. In this vein, Guzman and Alberola (2001: 255) suggest that ESP practitioners start the assessment procedure by first conducting a placement test at the beginning of the course with a view to identifying the level of each student. They also stress the significance of continuous assessment, claiming that "all testing should be communicative, skills-based, contextualised and based on real-life situations".

In addition, the implementation of new methods is likely to raise the learning outcomes and work on boosting learners' motivation as opposed to just following the traditional methods of evaluation. Put differently, learning languages in general involves the mastery of all language skills (listening, reading, speaking and writing), learning specific purpose languages is no exception. Therefore, the incorporation of tasks and activities that take care of those skills would be of paramount importance. Teachers must be innovative even in the assessment procedures, where they can opt for oral presentations, role plays, portfolios, audio and video recordings, technohomework, and so on, rather than relying solely on the traditional methods such as true or false questions, multiple choice questions or fill in the gaps activities.

1.5 Quality Assurance in an ESP Course and Test Design

QA in language teaching has been a prime concern in many institutions given the fact that it has a direct effect on the teaching and learning process. The system of quality assurance is primarily based on a set of procedures, criteria and mechanisms that aim to check the efficiency and improvement of institutions through continuous evaluation and the collection of evidence. In ESP, any course should be aligned with the objectives and cover all the important aspects that learners need. Given this, a thorough needs analysis is absolutely necessary to ensure the course's soundness and fitness for purpose. QA at the system, organisation or individual level operates within a cycle (Barrow & Mc Kimm, 2010).



Figure 1.6: The Quality Assurance Cycle (Barrow & Mc Kimm, 2010: 166)

In the above figure, it is clearly illustrated that at the onset, quality assurance systems start by assessing the needs and gathering data about the situation with the intention to launch in the following steps. Specifically, designing adequate curricula and programmes that fit with the specified target purposes; then, collecting feedback

about the outcomes from different stakeholders so as to have a comprehensive view of the situation; and at the end, working on adjusting and trimming the programmes and procedures that are adopted, particularly the teaching and learning process as well as assessment and evaluation procedures.

More to the point, ISO 9000 identified 20 elements that reflect the characteristics and features of a quality assurance system, which can be applicable to ESP design as follows (Tan San Yee, 1993):

Elements	Applicability		
1. Management	The implementation of ESP programmes, namely,		
Responsibility	management commitment and administration system.		
2. Quality System	The whole ESP system cycle.		
3. Contract Review	Meeting the needs of department/students.		
4. Design	Curriculum design, material design and test design.		
5. Documentation Control	This involves quality policy statement, objective statement, course description, syllabus, course materials, trainer guide, guideline on exams, etc.		
6. Purchasing	This entails the whole process of approval.		
7. Customer owned	wned The usability of course materials, e.g., video-based		
equipment	nt learning and computer-aided learning.		
8. Traceability	Proper documentation, e.g., instruments for tracing students' progress.		
9. Process Control	Process Control Teacher observation, vetting of exam papers, validation of exam results.		
10. Inspection and Test	Students' assignments, class tests, exams, etc.		
11. Test Equipment	Instruments of testing and evaluation: exam papers, test questions, staff appraisal mechanism.		
12. Inspection and Test	The results of exams, tests and assignments to		

Status	tatus indicate students' performance and progress.		
13. Non-conforming	Students' inadequacies at entry level, their failures,		
Product	poor exam results, dropout rate.		
14. Corrective Action	Remediation before, during and after he course in		
1. Corrective rection	terms of processes, resources and results.		
15. Handling, Storage	Course materials, test and exam papers, etc.		
and Packing			
16. Quality Records	All kinds of up-to-date documentation on practices		
10. Quanty Records	affecting the quality of services.		
17. Quality Audits	Audit of ESP support centre.		
18. Training	Staff induction, in-service course/seminars, staff		
10. Training	development programmes.		
19. Servicing	Meeting the needs of departments.		
20. Statistical	Students' attainment, analysis of exam results,		
Techniques	graduate survey data.		

Table 1.3: Elements of Quality in ESP Design (Tan San Yee, 1993).

Ultimately, it is clearly apparent that what is mentioned in the above doesn't focus on ESP course design solely; it rather goes beyond to involve other related systems. This is due to the interrelatedness of the different elements and systems. Actually, a QA system requires the combination of all the set elements in order to have a comprehensive outlook and ensure the effectiveness and quality of the situation.

1.6 Conclusion

This chapter focuses on the theoretical part pertaining to the major aspects of quality teaching in an ESP context. It was devoted to shedding light on the key terms of the current work and also providing a comprehensive view of the current research in the same sphere. The significance of assessment and its value were stressed in this part, as it plays a critical role in building sound educational systems. Actually, achieving

high quality teaching, be it in ELT or ESP, relies heavily on structuring well-designed curricula and learning content, yet it is also crucial to monitor effective evaluation and assessment procedures.

Chapter Two: Research Design and Methodology

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2.1. Introduction

Chapter two is devoted to depict the situation analysis as well as explain the research design and methodology. Basically, it starts by providing an overview of the ESP teaching in Algerian universities. It also portrays the ESP situation at the University of Tlemcen, more precisely at the Chemistry Department. The second part of this chapter presents the different steps of the planning, development and execution of research procedures. It also gives a brief overview of the research method and design used in the study. Furthermore, this chapter demonstrates the data collection procedure, namely the instruments used by the researcher to collect data. Furthermore, a great part is devoted to justifying the choice of approach and research method, as well as the design of the instruments, and how these align with this particular research study.

2.2. Situation Analysis

Algerian educational systems have undergone constant reformulations in order to meet the requirements of the globalisation flow while also preparing students to adapt to new social conditions and labour market demands. Consequently, several attempts have been made to evolve as well as improve the quality of education; the English language periphery is no exception.

2.2.1. ESP Teaching in Algerian Universities

It goes without saying that English has become the global language and is increasingly becoming the dominant language in all domains of study and research. Nowadays, English is perceived as the global language of the world economy, the media and the means of international scientific and technological exchanges. Accordingly, a great deal of interest has been stirred toward the implementation of English in various fields and specialisations in different educational settings. Hence, the Algerian Ministry of Higher Education and Scientific Research (MESRS) has

introduced English language teaching in its institutions as an initiative to serve the needs of students to integrate into the scientific, technological, economic and social domains of HEIs.

In order for this objective to be achieved, ESP teaching is introduced in different curricula and different Departments, such as Medicine, Sciences, Engineering, Social Sciences, Economics, Mathematics, Physics, Chemistry and so forth. As such, these courses are programmed as additional but compulsory modules, depending on the requirements of each speciality, so as to meet learners' needs according to their research field or future professional domain.

In accordance with the British universities, namely Glasgow, Manchester, Leeds, Sheffield, Nottingham, and Salford, the Algerian Ministry of Higher Education and Scientific Research established three ESP centres in 1988. These centres were set up in Algiers, Oran and Constantine (Bereksi Reguig, 2014). Such cooperation aimed at giving assistance to foreign teachers to accomplish their research and instruction in Algeria using English as a medium of communication. It also serves to support learners wishing to carry on their post-graduation studies, mainly in scientific and technological streams, in Great Britain.

In this vein, Bencherif (1993), the national coordinator of the Algerian Universities' ESP projects, claims that ESP centres were founded under the supervision of the British Council and were supported by the necessary equipment. He also states that the impetus for such an initiative was to prepare teachers giving English lectures in different Algerian institutions as well as learners who wanted to pursue their future studies in Great Britain, create English courses, and teach English to subject specialists in disciplines connected to science and technology (Bereksi Reguig, 2014).

The three ESP centres had positive results regarding the ESP situation in the Algerian context. Nevertheless, there was a total dissolution of the centres at the level

of Algiers and Constantine due to the refusal of the Algerian Ministry of Higher Education and Scientific Research to grant ESP centres an official status. Hence, the remaining centre is that situated in Oran; however, it is no longer fulfilling its originally designated mission, wherein its activities are limited to the organisation of seminars and study days and supplying researchers, students, and teachers with books and documents (Bereksi Reguig, 2014).

2.2.2. An Outlook on the ESP Situation at the University of Tlemcen

The University of Tlemcen, or Abou Berk Belkaid University, was founded in 1989. It consists of eight faculties spread over the wilaya of Tlemcen, divided around five poles: the New Pole (also called the ring road Pole), the Imama Pole, the Chetouane Pole, the kiffane Pole, and the Centre Town Pole. It is worth mentioning the Miloud Barracks Pole, which adds Annex Maghnia. According to the Algerian Press Service (December 12th, 2013), the university receives about 40.000 students and 1.600 teachers, 38% of whom are doctors. The faculties, where each has more than one Department, are as follows:

- ➤ The Faculty of Science.
- ➤ The Faculty of Technologie
- ➤ The Faculty of Medicine.
- ➤ The Faculty of Letters and Foreign Languages.
- ➤ The Faculty of Humanities and Social Sciences.
- ➤ The Faculty of Law and Political Sciences.
- ➤ The Faculty of Economics, Business Sciences and Management.
- The Faculty of Natural Sciences, Life Sciences, Earth Sciences and the Universe.

The following figure summarises the organisation of the different faculties at the University of Tlemcen.

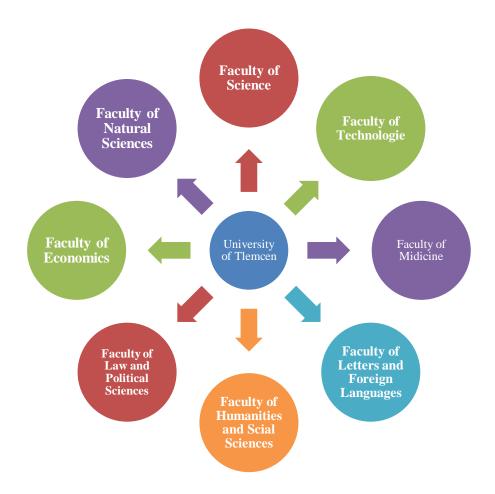


Figure 2.1: Faculties of Tlemcen University

By 2004, higher education institutions in Algeria witnessed the introduction of the LMD system, which was adopted for the purpose of enhancing the quality of education and to guaranteeing the adequacy of the provided education with regard to the labour market requirements, and Tlemcen University is no exception. The acronym LMD stands for Licence, Master and Doctorate. First, a licence degree could be attained during the first three years of the cycle. Second, a master's degree takes two years of study. Students are guided to a specialised field of study based on their choices, such as language studies, didactics, translation, or literature and civilization. The final step is the doctorate. Graduates have the chance to take part in the doctorate contest and carry out their careers during three years of research work.

As far as English teaching is concerned, all faculties and departments of Tlemcen University offer ESP courses with the intention of responding to learners' needs as well as improving the quality of teaching, learning and research. The ESP context that is under investigation is concerned with the Chemistry Department in the Faculty of Sciences.

2.2.3. Faculty of Sciences: a Brief Overview

The Faculty of Sciences is one of Tlemcen University's faculties. It entails four Departments: mathematics, computer sciences, physics, and Chemistry. Further, within this faculty, there are three common cores, namely Sciences and Technology (known as **ST**), Mathematics and Computer Sciences (referred to as **MI**), which indicates the French abbreviation of 'Math et Informatique'. The third common core is **SM**, referring to Matters Sciences (Sciences de la Matière), as shown in the next figure.

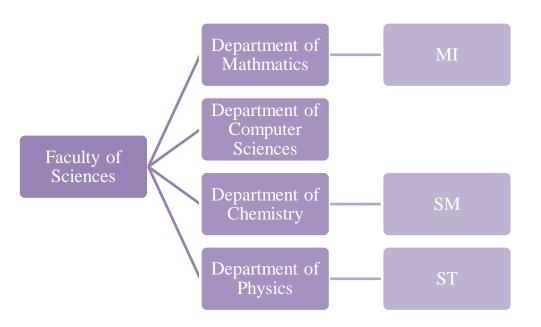


Figure 2.2: The Organization of the Departments and Common Cores in the Faculty of Sciences.

As mentioned before, students in the first year of the Licence cycle have three options: ST, MI and SM. After that, they will be directed to other common cores in the second year of their Licence. The orientation is made based on students' choices as well as their grades. After completing their first year Licence, students enrolled in the ST common core will be directed to the Engineering faculty. That is, they receive basic knowledge in the Science Faculty, which focuses on the main subjects including mathematics, physics and chemistry, and then continue their studies in other Departments pertaining to the Engineering faculty, such as Civil engineering, Electrical and Electronic Engineering, Mechanical Engineering, Hydraulic Engineering and Telecommunication.

As far as MI is concerned, students in 2nd year Licence are oriented either to Mathematics or Computer Sciences. As for the SM field, they have the option to choose either physics or chemistry. In the 3rd year Licence, which is the last year to obtain the licence degree, students continue within the same specialities, and then at the end of the 3rd year they are offered a list of specialities from which they choose the one they wish to undertake in order to carry on with their Master's degree.

2.2.4. The Chemistry Department: A Description of the ESP Teaching Situation

The importance of the English language in education and research worldwide makes it necessary for learners and researchers to improve their English skills and possess the capabilities that make them able to read scientific literature related to their domain of study. They also need to be effective communicators so as to engage in international academic and professional relationships. Within the case under study, ESP courses are offered on a regular basis for licence and master's studies. Nevertheless, this fact does not deny the presence of some chasms and deficiencies in the system.

As previously mentioned, the Chemistry Department is one of the departments of the Faculty of Sciences. It entails different areas of study, hence a variety of specialities and disciplines. It consists of a common core for L1, L2 and L3 and provides ten specialities at the level of the master's degree. In Master I, it consists of: Inorganic Chemistry and the Environment; Physical and analytical Chemistry; Organic and Therapeutic Chemistry; Theoretical Chemistry and Modelling; Applied Chemistry in Catalysis, environment and Materials. As for Master II, students may opt for the following specialisations: Macromolecular Systems and their Applications; Separative Sciences and Environment; Macromolecular Chemistry; Bioactive Molecules: synthesis and Applications; and Organic Chemistry. This is illustrated in the next figure.

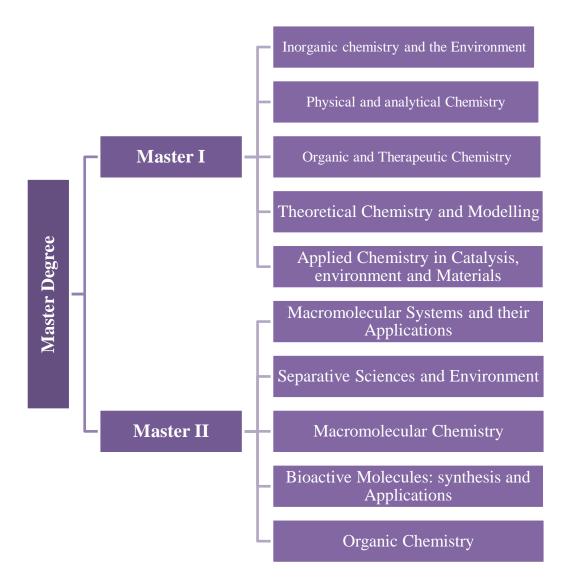


Figure 2.3: Specialisations in the Department of Chemistry at Tlemcen University

Learners at the Chemistry Department receive English courses at all levels (graduate and post-graduate) as it is considered compulsory. That is to say, they have English classes every year of study, beginning with the first year (common core) and ending with the last year of a master's degree; however, doctoral students do not have any sort of ESP courses. The course is delivered in an hourly volume of one session (one hour and a half) per week, as illustrated in Table 2.1. It is crucial to highlight that there is no official syllabus to be followed at the level of the Department under study.

Thus, the content of ESP classes depends on teachers' decisions, which are based on students' needs.

Degree	Level	Speciality	Time load
Licence Degree	1 st year	Common Core	1h30
	2 nd year	Chemistry	1h30
	3 rd year	Chemistry	1h30
Master's Degree	1 st year	Inorganic Chemistry and the Environment	1h30
		Physical and analytical Chemistry	1h30
		Organic and Therapeutic Chemistry	1h30
		Theoretical Chemistry and Modelling	1h30
		Applied Chemistry in Catalysis, environment and	1h30
		Materials	
	2 nd year	Macromolecular Systems and their Applications	1h30
		Separative Sciences and Environment	1h30
		Macromolecular Chemistry	1h30
		Bioactive Molecules: synthesis and Applications	1h30
		Organic Chemistry	1h30

Table 2.1: ESP Time Load in the Chemistry Department at Tlemcen University

2.2.4.1. The Structure of the ESP Course at the Chemistry Department

English courses in the first and second years (L1 and L2) focus on providing the basics of the language, thus the main rules of grammar, in order to recap the overall knowledge of the English language. Furthermore, teachers offer tasks and activities that help learners increase their vocabulary and English repertoire in general. They also

try to incorporate 'specific purpose English' into the various activities they do in classrooms. In other words, the language associated with the discipline of Chemistry. Hence, students at this level should be able to read, understand and be prepared to dig deeper into the remaining skills.

At the third-year licence (L3), students are supposed to be able to read texts and comprehend their content. Teachers at this level turn the focus on writing and speaking skills. Therefore, they tend to use the tasks that serve to motivate them to write and speak in the classroom, such as writing paragraphs or essays in addition to making oral presentations. By doing so, students are being prepared for their master's studies since they should write their theses in English in some specialities, noting that the language of instruction in this Department is French.

In more down-to-earth terms, ESP sessions are mostly scheduled at the end of the day, either from 14:00 pm to 15:30 pm or from 15:30 pm to 17:00 pm. Consequently, not all students are punctual or motivated to attend English classes. Additionally, the coefficient of the English module is (1) only; this makes learners careless about the English class and also makes them underestimate its importance, especially when they compare it to the other modules that have higher coefficients. This explains the high rate of absences.

Another factor is that most ESP teachers are general English graduates; they are generally doctoral students in the English Department or graduates holding a Master's degree. In the case under study, there is only one full-time teacher and five part-time teachers. Three of them are doctoral students, and the other two teachers hold master's degrees in the English language. They are neither trained nor prepared to launch into the teaching job. Hence, they have a lack of knowledge about teaching methods and pedagogy, the use of materials, and face difficulties in fitting into the specific language teaching situation.

2.3. Research Design and Procedures

It is commonly agreed that there is no single blueprint for planning research, but rather, researchers need to pursue the notion of "fitness for purpose" (Cohen et al., 1998: 78). In applied linguistics, there are a variety of methods and approaches that serve to conduct research and investigations and find answers to questions through the application of scientific procedures. In this vein, Mahesh et al. (2011) asserts that the nature of research can vary according to the purpose or method of study. Research can be classified in terms of the purpose as pure research (basic research), applied research, exploratory research, descriptive study, action research, and so on. The method of study can also be used to categorise research, which includes experimental research, analytical study, historical research, survey and so forth.

It is the aim of this study to present a comprehensive picture of the quality of ESP teaching in the Department of Chemistry at the University of Tlemcen. The researcher attempts to investigate the efficiency of the teaching methods and practices as well as the impediments that may hamper the attainment of better teaching quality, taking into account teachers' and learners' perspectives. Hence, case study research was thought to be most appropriate to yield rich and insightful data.

A case study, according to Yin (2009: 18), is "the empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context". That is to say, it is a way of investigating an empirical topic by following a series of steps and predefined procedures. Further, he stresses the relationship between the research method and the research questions, claiming that the type of questions posed should frame the design of the research. As a matter of fact, case studies can be used in the following situations: (a) when the study seeks to answer "how" and "why" questions; (b) when the researcher cannot control the behaviour of the people involved in the study; (c) when the contextual conditions of a phenomenon are of interest; or (d)

when the distinction between phenomenon and context is not obvious (Yin, 2003, as cited in Baxter and Jack, 2008: 545).

A case study, on the other hand, is defined by Simons (2009: 21) as "an indepth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, program or a system in "real life". She considers that a case study should be regarded as a design framework that may include a variety of methods rather than merely a method in and of itself.

Stake (2005: 443) shares a similar opinion, claiming that "a case study is not a methodological choice, but rather a choice of what is to be studied by whatever methods we choose to study the case. In so doing, we can study it analytically, holistically, hermeneutically, culturally, and by mixed methods". That is to say, the issue is not explored through one lens, but rather a variety of lenses, which allows for multiple facets of the phenomenon to be revealed and understood. In the same vein, Flyvbjerg (2011: 301) asserts that "if we decide to use a case study in our research, this doesn't mean the selection of a method, but rather a selection of what will be explored".

From a narrower standpoint, determining the "case" is an important step that might be challenging when conducting case study research. Miles and Huberman (1994: 25) define the case, or what is also referred to as the unit of analysis, as "a phenomenon of some sort occurring in a bounded context. The case is, in effect, your unit of analysis". An effective strategy to define the case is by asking questions about whether the intention is to analyse individuals, a programme, a process or the differences between organisations. In simple terms, as Johanson (2003) maintains, the case study should have a 'case' which is the object of the study, wherein the case should be:

- A complex functioning unit.
- Be investigated in its natural context with a multitude of methods.
- Contemporary.

Researchers claim that there are several categories of case studies. For Yin (2015), a case study may be descriptive, exploratory, explanatory, single, or multiple. Stake (2003) goes on to argue that it can be intrinsic, instrumental or collective. On their part, McDonough & McDonough (1997) categorise it as interpretive and evaluative. While it can also be confirmed or built upon theory (Eisenhardt, 1989).

Like any other research method, the case study can have both advantages and disadvantages. The following table summarises the major strengths and weaknesses provided by Yin (1984).

Strengths

- Involves detailed and holistic investigation.
- Use of different measurement techniques.
- Data can be collected over a period of time.
- Research is conducted within the context of its use.
- Possibility to quantitative and qualitative data collection and analysis.

Weaknesses

- Involves the analysis of small data sets.
- Lack of rigor and biased views influencing the direction of findings.
- Provides little basis for scientific generalisations (because of the small number of subjects).
- Long, difficult to carry out and necessitates a large quantity of documentation.

Table 2.2: Strengths and Weaknesses of Case Study Method (adapted from Yin, 1984).

The researcher used the case study method to conduct the present investigation in view of the fact that this research method makes in-depth study possible, it is flexible in data collection methods, it is also used to study any dimension of the topic, it is practical in any social setting, it helps establish generalisations about the wider population, and more importantly, it provides anecdotal evidence that illustrates more general findings (Burns, 2000). Therefore, the case study was sought to be appropriate for gathering the relevant data that enables the researcher to draw valid conclusions about the quality of teaching in the target context, since the ultimate motive to carry out this research is to check the accuracy of the teaching and learning process. Furthermore, the findings of the present work rely heavily on the attitudes and perspectives of the research participants, and this kind of data makes it emphatically worthwhile to opt for case study research.

2.3.1. Research Objectives

Quality in education is viewed as a progressive venture comprising changes and development. It is an accepted fact that ESP teaching in Algeria is influenced by a variety of factors, including curriculum and course design, needs analyses, teachers' preparation, adequate resourcing, teaching methods, and many other considerations. Hence, these variables must be considered so as to recognise the difficulties that could be encountered along the teaching of ESP journey, and seek to find resolutions to such concerns. Within this frame of reference, the present study focuses attention on the quality of the existing teaching practices in an ESP context at the Chemistry Department of the University of Tlemcen and attempts to make recommendations to improve the teaching quality within this subject area on the basis of the current deficiencies.

The present research aims at assessing the quality of teaching in an ESP context at the University of Tlemcen. It also attempts to identify the chasms existing in the situation at hand from students' and teachers' perspectives alike. Hence, pinpoint the

factors that have an influence on the success or failure of the ESP course in the same setting. The following are the main objectives of the present research:

- To depict the current state of the instructional context of ESP at the Chemistry Department.
- 2. To investigate ESP teachers' teaching practices and whether they meet the quality standards.
- 3. To unveil the factors affecting the quality of teaching in ESP within the Chemistry Department.
- 4. To examine the impact of teachers' quality on learners' performance.
- 5. To indicate recommendations with the aim of improving the quality of teaching in ESP classrooms.

2.4. Population and Sampling

The most frequently asked question by researchers before tackling any research is probably, 'What population should be considered by the study?' Or 'how large should my sample be?' Initially, the specification of the population is fundamental for the design of any research. Cohen and Manion (1989) regard population as one of the pillars of the research design structure because it has a significant impact on resources as well as the sampling process. They also emphasise the importance of "accessibility to the specified population" (Cohen and Manion, 1989: 100). That is to say, a sample is chosen from the entire population. In this vein, Dörnyei (2007: 96) distinguishes between population and sample as follows: "The sample is the group of participants whom the researcher actually examines in an empirical investigation, and the population is the group of people whom the study is about".

A straightforward definition of the term sample is "a proportion or subset of a large group called population ... a good sample is a miniature version of the population of which it is part - just like it, only smaller" (Fink, 2003: 1). In simple terms, the sample is a smaller set of elements from a larger population who represent similar specifications or criteria.

Sampling is defined as "the way of selecting a small number of units from a population to enable researchers to make reliable inferences about the nature of that population" (Krathwohl, 1998: 160). Accordingly, it refers to the process of selecting a predefined number of individuals to participate in a study or an investigation using sampling techniques, from which researchers collect information about a specific phenomenon.

It is worth pointing out that researchers proceed to sampling techniques in their investigations in order to constringe the number of elements, since they are likely to face some factors "such as expense, time and accessibility frequently prevent researchers from gaining information from the whole population" (Cohen et al., 2005: 92). The sample design depends on a set of steps that are illustrated in figure 2.4.

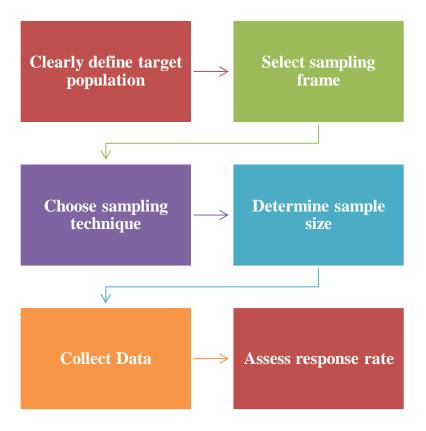


Figure 2.4: Sampling Process Steps (Taherdoost, 2016)

According to Taherdoost (2016), the process of sampling is determined by the aforementioned steps. He believes that the primary stage of sampling is to clearly define the target population by deciding the group of people with whom the researcher intends to carry out his or her study. After that, selecting the sampling frame which implies determining "The list of the actual cases from which sample will be drawn, the sampling frame must be representative of the population" (Taherdoost, 2016: 20). The next step is choosing sampling techniques. It must be noted that sampling techniques entail two major parts:

❖ Probability Sampling

It is also known as random sampling or representative sampling. Within this type, all members of the population have an equal chance to be involved. The initial step in probability sampling technique is to create a sampling frame by using numbers

to identify each element of the sample, and some of these numbers are picked at random to determine the sample members. Elder (2009) claims that probability sampling is the most valid technique if researchers aim to generalise their research results since each element can be chosen, and thus data gathered based on such a sample would be more accurate. Probability sampling entails simple random sampling, systematic sampling, stratified random sampling, cluster sampling, and multi-stage sampling.

❖ Non-probability Sampling:

Non-probability sampling can also referred to as purposive sampling. As its name indicates, purposive sampling allows the inclusion of elements with specific categories, and not all units of a population can have the same possibility of being involved. This type is generally related to case study research and qualitative investigations. Non-probability sampling comprises quota sampling, snowball sampling, convenience sampling, and purposive sampling. The preceding information is summarised in the figure bellow.

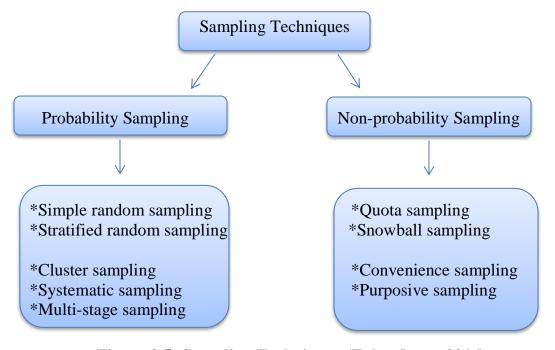


Figure 2.5: Sampling Techniques (Taherdoost, 2016)

After deciding on an adequate sampling technique, the investigator should determine the sample size. This step is the most significant one, in which researchers should avoid any kind of sampling error or bias in order to conduct effective research and come up with valid results. Therefore, a good sample consists of an adequate number of cases that are similar to the target population in terms of general characteristics, allowing the sample to be considered representative to the entire population (Dörnyei, 2007).

In practical terms, the sample size is dependent on the complexity of the population, the research aims, and the type of statistical software that will be used in data analysis (Taherdoost, 2016). In a nutshell, sample sizes can be set in three different ways:

- Cost base: include the subjects that are available or convenient to collect.
- Variance base: to make use of a target variance to get an estimate from the sample that was acquired.
- **Statistical power base**: using a target to determine the power of a statistical test after the sample has been compiled. Furthermore, the quality of the generated estimations is used to determine the sample size (Singh and Masuku, 2014).

In a similar vein, Lock et al. (2017: 204) stress the vital role of sample size in making decisions about the representativeness of the population. They claim that "when the sample size is big enough, the sample statistic is very close to the population parameter". In contrast, if the sample size is too small, not all the features of the population can be met (Mendenhall et al., 2013). This view was adopted in the present study. Consequently, the sample size encompasses roughly 50% of the total population.

After deciding on the population, defining the sampling frame, choosing the sampling technique, and determining the sampling size, the next step is *data collection*. That is to say, launching into the process of gathering the necessary information that

enables the researcher to confirm or deny research hypotheses and then draw valid conclusions about the research problem.

The final stage regarding the sampling process is *the assessment of the response rate*. Failure to achieve a 100% response rate may be due to factors like refusal to respond, ineligibility to respond, inability to respond, or in cases where respondents have been located but the researcher is unable to reach them. Consequently, researchers need to assess the response rate because each non-response case is liable to bias the final sample. Ultimately, defining the sample clearly, using the appropriate sampling technique, and creating a large sample can decrease the risk of sample bias (Taherdoost, 2016).

Regarding the present study, the researcher decided to conduct her investigation in the faculty of sciences, more precisely at the level of the Chemistry Department since she was dealing with ESP. This choice was due to various incentives. First, the researcher noticed, through her readings and research, that there are a limited number of prior studies carried out in the target research field compared to other disciplines like Biology, Economy, Engineering and others. So, it was an opportunity to shed light on this field and investigate its teaching and learning processes.

The fact that Chemistry is considered one of the main disciplines in the faculty of sciences was another impetus that urged the researcher to concentrate her study on this field of study. It entails 11 different specialties, which make it interesting and polarise a lot of students. Therefore, a large number of students indicates the availability of a large and varied target population. It is worth noting that the total number of students was 798. This number of students necessitates a greater number of teachers to meet the Department's teaching requirements. This was another important factor in carrying out the study in this field. One more reason is that the researcher was once a student belonging to the faculty of sciences and had experienced learning in

similar environments. She also had easy access to the faculty and had more opportunities to get in touch with the staff.

As far as the students' questionnaire is concerned, the sampling frame settled on a stratified random sampling technique since the researcher attempted to deal with an accurate representative sample so as to be able to generalise the findings to the larger population of concern. This type of sampling relies on dividing the population into strata (or sub-groups) and then randomly selecting elements from each sub-group, which are the groups of students in this case. In this manner, each group would be appropriately represented. Hence, the researcher approached the administration and obtained information about the number of classes in each level (L1, L2, L3, and M1) of the target specialisation. Then, by applying stratified sampling techniques, she calculated the required number of students participating in the study from each group. After determining the sample size, the researcher coordinated with the teaching staff to administer the questionnaire. As for the interview, the sample encompassed all the teachers in charge of ESP at the Department of Chemistry.

2.4.1. Students' Profile

This study requires the elicitation of the attitudes and perceptions of students as a source of information that enables the researcher to obtain a clear image of the teaching quality in the target situation. Therefore, the sample involves ESP students enrolled at the Chemistry Department of the University of Tlemcen in the academic year 2019/2020. The total population was 798, including 230 students in first-year licence (L1), 193 students in second-year licence (L2), 169 students in third-year licence (L3), 114 students in first-year master (M1), and 92 students in second-year master (M2). Noteworthy is that the students involved in this study are affiliated with the different specialties of the Chemistry Department. The sample size of the present study consisted of 350 participants drawn from all levels and specialities.

Students involved in the case under investigation have Baccalaureate degrees in scientific streams (Experimental Sciences, Mathematics, Technical Mathematics). They had seven years' experience of English learning before entering the university i.e., four years at middle school and three years at secondary school.

2.4.2. Teachers' Profile

The informants were six ESP teachers in the Chemistry Department at Tlemcen University. They included five females and one male. Three teachers are currently doctoral students; one of them holds a Magister degree in ESP, and two of them hold a Master's degree in Language Studies. The remaining three others hold Master's degrees in Literature and Civilization .

Five subjects are part-time teachers at the Chemistry Department, and one, holding a magister degree, is a full-time teacher with five years of experience. The others have teaching experience ranging from one to three years as explained in Table 2.3. It should be recognised that the full-time teacher was in charge of the Master's students (M1 and M2) of the different specialties in the Chemistry Department, whereas the part-time teachers were concerned with the students in the Licence cycle.

Initials	Gender	Qualification	Training	Status	Experience
SK	Female	Magister	Yes	Full-time	5 years
AB	Female	Master	No	Part-time	3 years
HT	Female	Master	No	Part-time	2 years
WC	Female	Master	No	Part-time	2 years
SG	Male	Master	No	Part-time	1 year
SS	Female	Master	No	Part-time	1 year

Table 2.3: Teachers' Profiles

2.5. Data Collection Procedure

The quality of any research is determined by the quality of the data collected. It follows that the quality of the data collected is influenced by the procedure used to compile the data. In this respect, the present study adopted a mixed-method data collection strategy. A mixed-method or multiple-method approach implies the incorporation of qualitative and quantitative data. That is, the use of both quantitative and qualitative research methods. Quantitative data relies on numeric variables, whereas qualitative data is about categorical variables. Therefore, multiple sources of data are used, allowing for the triangulation of results.

It was decided to opt for three different research instruments for the purpose of gathering in-depth and varied information from participants. This comprises course experience questionnaires for students at the end of the English course to get a clear picture of their perspectives and obtain feedback about the teaching practices in the context of study, as well as interviews with teachers to check their own perceptions of the research problem while also attempting to unveil the impediments they face in the ESP teaching situation. Besides, the researcher conducts classroom observations to develop awareness about classroom practices. This serves to achieve triangulation, which allows the researchers to approach the research problem from multiple perspectives.

Denzin (1978) perceived triangulation as the validation of hypotheses by examining them through multiple methods. In other words, triangulation implies the use of multiple types of data collection methods in one study for the purpose of "reducing the inherent weaknesses of individual methods by offsetting them by the strength of another, thereby maximizing both the internal and external validity of research" Dörnyei (2007: 43).

The data collection procedure involved a number of stages. First, a pilot study was carried out with the aim of rectifying the flaws and imperfections of research instruments. Then, the researcher engaged in classroom observations with teachers taking charge of the English course at the Chemistry Department. After that, interviews were conducted with the same group of ESP teachers. At the end of the course, the researcher began administering the questionnaires to students. Figure 2.6 represents the data collection procedure.



Figure 2.6: Data Collection Procedure

2.5.1. The Pilot Study

Before launching into the study, the researcher perceived the need to pilot the research instruments in order to ensure the reliability of their results. A pilot study is considered an indispensable phase in a successful research process. It is used in social sciences research since it allows investigators to verify the appropriateness and quality of instruments (Van Teilingen and Hundley, 2002). In this line of thought, Borg and Gall (1983: 100) consider piloting as "a preliminary trial of research measures and techniques in the development of sound research plan... it provides the researcher with

additional knowledge that leads to improve research and can help to improve the validity and reliability of instruments".

Pilot studies are frequently undertaken in both quantitative and qualitative research. Dörnyei (2007: 75) asserts that "piloting is more important in quantitative studies than in qualitative ones, because quantitative studies rely on the psychometric properties of the research instruments". The current study devoted time to piloting both the questionnaire and classroom observation.

The piloting phase of this study was carried out in September 2019 at the target research field with students and teachers who have characteristics similar to those of the sample population. During the observation pilot, the researcher attended a few sessions with teachers in an attempt to become familiar with the teaching environment and to take notes and observations about what was going on in general inside the ESP classrooms. The main aim of the pilot was to depict a clear image of the circumstances surrounding the classroom observation procedure.

The questionnaire was also piloted with the aim of checking whether its questions were understandable in addition to ensuring the absence of any sort of ambiguity or confusion. The piloting was carried out with 10 students. The researcher handed the questionnaires to participants and asked them to fill them in; they then discussed any unclear questions or difficulties. Based on the obtained information, the researcher made the necessary modifications and refined the layout to obtain the final version of the questionnaire. Some items were reworded while others were simplified so that participants could understand the content of sentences.

Taking that into consideration, it would be fair to say that the piloting phase was of great significance in identifying the possible deficits that would cause obstacles during the data collection process. Nonetheless, testing research tools prior to the start of the research process allows the researcher to avoid such flaws or difficulties. In this

regard, Dörnyei (2003) points out that pilot studies are likely to bring up questions that could be ambiguous, difficult for participants to understand or give answers to, contrary to their expectations, or provide irrelevant information.

2.5.2. Classroom Observation

Humans gain understanding of the world by observing and asking questions. Observational skills such as "watching and listening are part of our everyday life and are two basic ways in which we learn about our fellow beings" (Randor, 2002: 48). From a professional standpoint, observation can be regarded as a fundamental tool for research purposes since "it provides direct information rather than self-report accounts" Dörnyei (2007: 178). Hence, it is one of the basic sources of data for empirical research.

Classroom observation is a crucial method for collecting qualitative data in social science research. This method offers the opportunity to compile vivid facts and actual behaviour about students and teachers alike. In simple terms, through observation the investigator can visualise what really happens inside the classroom, as they may detect some hidden factors that have an influence on the quality of the teaching and learning process. In this respect, Neuman (2000) believes that observation helps to bridge the gap between what people say and what they actually do; it allows for the discovery of attitudes and practices that participants themselves are unaware of. Thus, observation provides more valid and authentic data.

Seliger and Shohamy (1989: 162) believe that classroom observation is a method to explore "how learners use language in a variety of settings, to study language learning and teaching processes in the classroom, and to study teachers' and students' behaviours". Hence, classroom observation reveals significant key factors that serve to aid investigators in understanding specific issues within the teaching and learning process.

2.5.2.1. The Observation Process

In the current study, classroom observation served to explore the actual teaching practices inside ESP classrooms and search for evidence concerning the quality of teachers' instruction, students' learning, and teaching materials. To this end, the researcher carried out observation with all ESP teachers at the Chemistry Department, who were to be interviewed within this study; each one was observed three times and all sessions took one and a half hours (90 minutes).

The process of classroom observation was smooth enough; the researcher asked for the consent of teachers to undergo classroom observations for research purposes, and she was authorised to attend any class that she wanted. Given that the current study's aim is to assess the quality of teaching in the Chemistry Department while avoiding any negative attitudes from the observed teachers, the researcher stated from the beginning that the study seeks to provide an evaluation of the various aspects of ESP teaching rather than making judgements about the teachers themselves.

Teachers involved in this study were cooperative and eager to help throughout the research process. They provided the investigator with relevant information about the teaching situation that was useful in orienting the scope of the study even before engaging in the data collection procedure. For this reason, the researcher conducted a preliminary classroom observation in the research field, aiming to conceptualise a comprehensive image of the situation, determine the major issues in the target case, and predefine the most appropriate guides for the research procedure.

Classroom observations of the study proper began in November of 2019. To collect data, the researcher chose to rely on structured observation, which was guided by guidelines, which enabled her to gather the needed information aligned with the research objectives. The observation grid used in this research depended on five major dimensions: ESP teachers' practices, classroom management, teacher talking time

(TTT) and learner talking time (LTT), teaching materials, and the language of instruction. She was also taking notes about any inquiries that should be thoroughly investigated by the remaining data collection tools along the research process. The structure of the observation guideline is illustrated in Table 2.4.

Dimension	Features to be Observed	
Teacher's skills	Knowledge of specific- fieldTeacher-student relationship	
	Clarity of lesson content	
Classroom management	 Control the classroom in general Individual/ peer/ collaborative work in the classroom Class size 	
TTT and LTT	 Engaging students to talk Debates and discussions in class Teacher-centred/ learner-centred 	
Teaching materials	Type of materialsAuthenticityUse of technology in the class	
Language of instruction	Dominant language of instructionUse of French / Arabic	

Table 2.4: Classroom Observation Guidelines

Prior to engaging in the observation process, the researcher arranged with the teachers a time that suited both of them and met with them before the start of the class, where they, most of the time, had a talk about the content of the lesson and handed her a copy of the hand-out of the lesson or the activities to get an idea of the tasks to be done in that session. Notes and observations were taken according to the observation grid, and other aspects that attracted the researcher's attention were taken as additional remarks. Each class lasted for about seventy to eighty minutes, and they took place in

the afternoon, from 13.30 to 15.00 or from 15.00 to 16.30. The collected information will be exposed and explained in Chapter 3.

The major merit of observation is that it is versatile and enables researchers to explore the real behaviour of individuals and see what they actually do rather than relying solely on what they claim they do (Dörnyei, 2007). In other words, observation "allows the study of a phenomenon at close range with many of the contextual variables present, a feature which is very important in studying language behaviours" (Seliger and Shohamy, 1989: 162).

On the flip side, observation does not always enable investigators to fathom certain behaviours and provide appropriate explanations. To put it another way, the observer makes assumptions and clarifications about certain phenomena based on what they see and what the ones who are being observed do. Nevertheless, some explanations may not be entirely correct. Furthermore, many of the factors and processes studied by applied linguistics researchers are mental and thus unobservable (Dörnyei, 2007). Besides, the presence of the observer may influence the participants' behaviour and sometimes lead to bias. From other perspectives, observation has been criticised as being:

- Threatening and intrusive (King, 2015).
- Prior knowledge of and connection with the teacher can impact the observer's knowledge (Bell et al., 2014).
- Teaching is reduced to a superficial set of skills and behaviours when teachers are observed (O'Leary, 2016a).

2.5.3. Students' Questionnaire

One of the most popular methods of data collection in second language research is the use of questionnaires of various kinds. This is due to the fact that "they are easy to construct, extremely versatile, and uniquely capable of gathering a large amount of information quickly in a form that is readily processable" (Dörnyei, 2010: 1). Questionnaires are frequently reckoned as "inventories", "forms", "opinionnaires", "tests", "batteries", "checklists", scales", "surveys", "schedules", "studies", "profiles", "indexed/indicators", or "sheets" (Aiken, 1997, as cited in Dörnyei, 2010: 3). Brown (2001:6) puts forward a clear definition pointing out that "a questionnaire is any written instrument that presents respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers".

Questionnaires are commonly used in second language acquisition research to collect data on difficult-to-distinguish phenomena and self-concepts such as attitudes, beliefs, experiences, motivation and interests. Accordingly, the questionnaire is perceived as a tool that enables researchers to achieve high research standards. Any research instrument may have strengths and weaknesses. Seliger and Shohamy (1989) put forward a variety of advantages and disadvantages of questionnaires, which are illustrated in the table below.

Advantages	Disadvantages
Self-administered and can be given to	The relative no response rate.
large groups or subjects at the same time.	
Less expensive to administer than other	Low validity of the findings.
procedures.	
When anonymity is assured, subjects tend	Inappropriate for illiterate subjects.
to share information of a sensitive nature	
more easily.	
Since the same questionnaire is given to	
all the subjects, the data are more uniform	
and standard.	
Since they are usually given to all subjects	
of the research at exactly the same time,	
the data are more accurate.	

Table 2.5: Advantages and Disadvantages of Questionnaires (Seliger and Shohamy, 2004).

Indeed, the primary aim of this research is to assess the quality of the ESP teaching in the Chemistry Department. Significantly, the key elements to investigate the quality of teaching in higher education encompass students' perspectives, curriculum, teaching and assessment methods (Lizzio et al., 2002). Therefore, evaluating instructors' performance based on learners' ratings is beneficial for the development of valid and concrete results. Clyson (2009: 26) postulates that "the students' satisfaction with, or perception of, learning is related to the evaluations they give".

This type of survey is referred to as students' evaluations of teaching (SETs), students' ratings of instruction (SRIs), teaching evaluation and course evaluation. They are typically administered to students in HEIs, particularly in Europe, Australia and the USA, at the end of the academic year to evaluate teaching improvement and, more specifically, to collect data about their perspectives and experiences in a course in which they were enrolled. Besides, institutions also depend on the feedback of these surveys to plan, modify or redesign a course, adapt the teaching materials or the teaching methods, and make personnel decisions such as annual reviews, tenure,

promotion, and hiring (Linse, 2017). On account of this, the researcher believed that using this kind of survey to conduct this investigation with students serving as a source of data was most appropriate. Besides, questionnaires are advantageous when dealing with large samples.

Research has proven that many aspects of teaching quality can be assessed based on students' perspectives. In this context, many scholars attest to the usefulness and accuracy of students' evaluations of instruction (Feldman, 1978; Roe and Macdonald, 1983; Marsh, 1987; Ramsden, 1991; Berk, 2005; Miller and Seldin, 2014). In this line of thought, Marsh and Roche (1997) claim that students' evaluations of teachers' performance are reliable, stable and relatively valid against a range of measures of teaching quality as long as the instruments are well organised and properly used. In the same vein, Miller and Seldin (2014) advocated the use of ESTs, arguing that a survey conducted in 2010 indicated that ESTs were usually the main source of information about the quality of classroom in most HEIs.

As another opinion, Stringer and Finlay (1993) criticise SETs for their lack of objectivity or inappropriate use of information by institutions. They were also criticised for reflecting only students' satisfaction with a course, which can be impacted by a variety of factors unrelated to teaching efficacy (Freishtat, 2016). Nevertheless, despite their shortcomings, various types of performance indicators of teaching quality have been put to use at universities in recent years, such as the Students' Evaluation of Educational Quality (SEEQ), the Learning Improvement Strategies Questionnaire (LISQ), the Course Experience Questionnaire (CEQ), and the Formative Feedback Questionnaire (FFQ), as shown in the next figure.

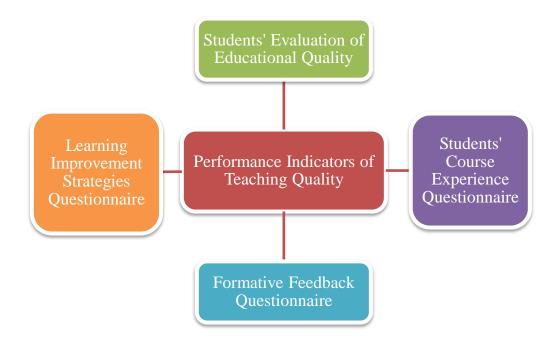


Figure 2.7: Students' Based Quality Teaching Evaluation Methods

The questionnaire used in this research was an adapted version of the Course Experience Questionnaire (henceforth, CEQ). It is a performance indicator that is used for evaluating the quality of teaching in HEIs in Britain and Australia based on students' experiences. It is used to present vivid information about the aspects of instruction that students receive in institutions during their learning process and how they perceive its quality. Basically, Ramsden and Entwistle (1981) developed the Course Perceptions Questionnaire (CPQ), which was used in Britain in the 1980s. This version was revisited and refined in 1989 by Ramsden to provide the final version of CEQ. Afterwards, it was established as a national graduate survey, considering that students are more likely to learn effectively and make efforts to comprehend the syllabus's content when they feel that the teaching is useful and well-arranged (Ramsden, 1991).

The original version consists of five scales: Good Teaching (six items), Clear Goals and Standards (four items), Appropriate Workload (four items), Appropriate Assessment (three items), and Generic Skills Scale (six items). The researcher was

inclined to use CEQ in particular since the nature of such a tool commonly deals with the evaluation of courses, and because the main aim of the current study was to assess the quality of ESP teaching in the target situation. Thus, she adapted the questionnaire's items according to the research objectives and amended them to serve the research flow. This was attained by linking the original content of items to the ESP context, and reformulating them to serve as a means of obtaining feedback that relates to research objectives.

The questionnaires employed in this study covered the following content areas:

- Attitudes and motivation: to inquire about the attitudes of participants' and what they think about learning and using English in an academic setting.
- ➤ Teaching methods: to explore the teaching methods and techniques used by teachers in ESP classes, namely the types of instruction, materials and activities, taking into consideration learners' standpoints towards these practices.
- The course content: to elicit the constituents of ESP courses and figure out whether they correspond with what should be taught in specific purpose classes.
- Assessment methods: to determine the types of assessment procedures that teachers adopt in an ESP setting.
- > Students' progress: to investigate the effectiveness of teaching practices through the value added to learners during their English course experience.

2.5.3.1. Questionnaire Layout

The design of the questionnaire in the present study depended on three parts (see Appendix A). Each one included a different type of questions, such as closed-ended questions, open-ended questions, and Likert scale questions. After the greeting and general instructions of the questionnaire, the personal information section sought information about respondents' profiles, such as gender, level of study and speciality.

The next part was composed of four closed-ended questions that aimed to elicit respondents' attitudes towards English language learning and their perceptions of its value for their future careers. After that, a set of Likert scale items were employed to check the level of agreement about the quality and usefulness of ESP courses; they were adapted from Ramsden's *CEQ* (1991). The third section included two open-ended questions designed to elicit the respondents' evaluation of the current ESP teaching situation as well as potential suggestions for improving the quality of teaching from the perspective of learners.

Part One:

This part is divided into two rubrics: students' attitudes and students' perceptions about the ESP course. Rubric one involved four close-ended questions, including yes/no questions and multiple choice items. In this respect, a closed-ended question is a form of question that requires respondents to choose from a predefined set of answers. This type of question tends to present quantitative data. The questions in this rubric sought to illustrate learners' attitudes towards English learning at the university level as well as information about their English backgrounds, and whether needs analysis processes existed in ESP courses at the Chemistry Department. This is elucidated in the following table:

Question	Objective
1. Do you think that you need English for your future career?	To elucidate students' attitudes towards learning English for their academic careers.
2. Do you think that learning English would help you get a better job?	To identify students' viewpoints about the role of English in their jobs and professional careers.
3. How do you evaluate your English level before attending an ESP course at this Department?	To inquire about students' attitudes towards the existing ESP course in the Department.
4. Were you tested at the beginning of the course by teachers to identify your needs?	To inspect about the needs analysis procedure from learners' perspectives.

Table 2.6: Questionnaire Items (Rubric one)

Rubric two is comprised of six Likert scale items aimed at presenting learners' perceptions about the ESP course they received. Likert scale is a method of collecting data about people's attitudes. It takes the form of items to which respondents are required to express the level of agreement or disagreement on a particular topic on a scale of 1 to 5 (1 = strongly disagree; 2 = disagree; 3 = Neutral; 4 = agree: 5 = strongly agree). This method of measurement was named the Likert scale after its developer, Renis Likert, who first used it in 1932. Table 2.7 illustrates the items of rubric two and identifies their objectives in this research.

Item	Objective
1- The content of the English course meets	To check the adequacy of the ESP course
my needs.	and whether it satisfies learners' needs.
2- The topics in English classes are	To confirm that topics are congruent with
relevant to my field of study.	the specific field content.
3- Interesting materials are used within	To inspect the appropriateness of
English classes.	materials used by teachers.
4- I am able to understand the content of	To examine the extent to which the
the lessons easily.	content of the course is understandable.

5- After attending English courses, my	To inquire about learners' standpoints
English has improved.	about the effectiveness of the course.
6- I am satisfied with the content of	To check learners' satisfaction with the
English courses.	course provided by the Department.

Table 2.7: Questionnaire Items (Rubric two)

Part Two

This part consisted of five scales: Good teaching, Clear goals and standards, appropriate workload, appropriate assessment and generic skills. It is determined by investigating the link between the obtained scores and the external measure like the general students' satisfaction with the course quality. CEQ was criticised for failing to include other significant features of the teaching and learning environment (Yorke, 1996). Consequently, researchers sought to enhance the original instrument by changing the structure of questions, or by incorporating new scales to capture larger aspects of the learning context (Eley, 2001). The Tables bellow clarifies the statements on each scale of the questionnaire and their objectives.

1. Good Teaching Scale

This scale attempted to collect data about teachers and their performance in ESP classes. It consisted of eight items that served to determine the quality of teachers' competence, motivation, feedback, and teaching materials.

Statement	Objective
1- The teacher of English motivates me to do my best in learning the language.	To determine teachers' level of motivation
2- The teacher of English put a lot of time	To find out whether teachers' pursue
into commenting on my activities.	formative assessment in their classes.
3- The teacher of English makes a real	To examine the extent to which teachers
effort to understand my difficulties.	care about their students' progress.
4- The teacher of English gives me helpful	To examine the extent to which teachers
feedback on how I'm going.	are supportive and encouraging.

5- The teacher of English is good at explaining things related to my field of study in English.	To investigate teachers' competence and clarity of explanation.
6- The teacher of English works hard to make the course of English interesting and useful.	To inspect the commitment of teachers.
7- The teacher of English uses interesting materials related to my field of study.	To ascertain the adequacy of teaching materials
8- I have no difficulties to understand the content of materials (texts, articles)	To check the clarity of the teaching materials

Table 2.8: Good Teaching Scale Items

2. Clear Goals and Standards Scale

The four statements of this scale tried to figure out the clarity and appropriateness of the goals and objectives of the ESP course existing in the target case.

Statement	Objective
1-It is easy to know the type of work expected.2- I usually have a clear idea of where I'm going and what is expected of me in this course.	To check the clarity of the learning objectives.
3- It is often hard to discover what is expected of me in that course.	To examine teachers' guidance
4- The teacher of English made it clear right from the start what he expected	To ascertain that teachers make students aware of the course objectives.
from students.	

Table 2.9: Clear Goals and Standards Scale Items

3. Appropriate Workload Scale

As far as appropriate workload scale is concerned, its three items aimed to expose learners' perceptions about the workload in the ESP course.

Statement	Objective
1- The lessons and activities that we have in the English course are too heavy.	To examine the appropriateness of the amount of workload.
2- I'm generally given enough time to	To reveal the consistency of workload
understand things I have to learn	with the time load.
3- There is a lot of pressure on me to do	To examine the tension of the workload
well in this course.	on the students.

Table 2.10: Appropriate Workload Scale Items

4. Appropriate Assessment Scale

This scale included four items that sought to investigate the prevalent assessment methods undertaken by teachers.

Statement	Objective
1-To do well in this course, I need to have knowledge about English in my field of study.	To check whether the language and content knowledge are both tackled in this course.
2- Test/exam questions are usually about topics related to my field of study	To examine that assessment aligned with the content knowledge.
3- The teacher seems more interested in testing what I memorize than what I understand	To unveil whether the focus of the course was on learners' comprehension.
4-To do well in this course, I need to have knowledge about English in my field of study	To check if the course's goal is to emphasise language in relation to content knowledge.

Table 2.11: Appropriate Assessment Scale Items

5. Generic Skills Scale

The last scale of this part of the questionnaire was devoted to unveil students' satisfaction about the course to diagnose its utility and effectiveness.

Statement	Objective
1. The ESP course developed my English language abilities	Satisfaction with the ESP course in general.
2. The ESP course developed my ability	Satisfaction with the reading skills
to read and understand authentic materials related to my field of study.	developed through the current ESP course.
3. As a result of the ESP course I feel	Satisfaction with the English competences
confident about using the language adequately.	developed through the current ESP course.
4. The ESP course improved my skills in written communication	Satisfaction with the writing skills developed through the current ESP course
5. The ESP course helped me to develop	Satisfaction with the speaking skills
the ability to engage in discussions in English	developed through the current ESP course.

Table 2.12: Generic Skills Scale Items

Part Three

The last part of the questionnaire was concerned with purely qualitative data and consisted of two open-ended questions. One of the questions attempted to identify the good practices of teachers according to learners' perceptions, and the second was devoted to the suggestions and recommendations of respondents regarding the improvement of the ESP teaching quality from their perspectives. Open-ended questions allow informants to answer in an open-text format and freely express their ideas or perspectives in their own words, with no limited set of options. Besides, they enable the researcher to gain a wealth of insight through qualitative data.

2.5.3.2. Administering the Questionnaires

During the second semester of the academic year 2019-2020, the researcher decided to collect the questionnaire data. Thus, 370 questionnaires were administered to the sample population. It must be noted that this type of questionnaires is supposed to be administered at the end of the course to provide an effective evaluation. However, due to the compelling circumstances of COVID 19, the researcher was obliged to

accomplish the data collection process before the spring holidays of 2020. That is, before the lockdown. After disseminating the questionnaires to the participants of each group, the researcher clarified briefly the purpose of the study and why they were required to fill out the questionnaire; she also assured confidentiality of all answers, especially given that the present investigation is concerned with teaching evaluation, which is "a sensitive issue" (Biedrzyńska, 2011: 28). In that manner, they would feel more at ease answering sincerely and objectively.

The Chemistry Department's teaching staff was cooperative during the administration of the questionnaire. Despite the insufficient time load, they accepted to devote some time to this research with good grace. Some of them preferred to administer the questionnaire at the end of the class, whereas others allowed it to be done at any time during their classes. The participants were given enough time to respond, and the investigator was present during the questionnaire completion process to provide any clarifications if ever needed, and to ensure that all participants completed the questionnaire correctly to increase the return percentage.

The main objective of research instruments is to collect information about the issue of concern. Therefore, the questionnaire was translated to Arabic (see Appendix B) in order to ensure full understanding of the questions or items of the questionnaire. To this end, Arab respondents, mainly Algerian, were handed the Arabic version, and the English versions were given to stranger students.

2.5.4. Teachers' Interview

The third research tool utilised in this research was the interview. Notwithstanding the existence of various qualitative research techniques, the interview is a common way of collecting data in qualitative social research methodologies. It takes the form of verbal communication between two individuals for the sake of gathering information about a predefined phenomenon. Hence, it can be considered a

method of data collection that enables respondents to talk about their predicaments, needs, experiences, expectations and understandings (Nunkoosing, 2005). In this line of thought, Yin (1994: 20) claims that:

Interviews are an essential source of case study evidence because most case studies are about human affairs, these human affairs should be reported and interpreted through the eyes of specific interviewees and well-informed respondents can provide important insights into a situation.

On this account, an interview is a systematic conversation between the investigator and informant, in which the researcher compiles answers to his questions on the basis of what the respondent says, as well as his facial expressions, gestures and other aspects of verbal and non-verbal expressions (Mahesh, 2011).

From a deeper perspective, Kavale (1996) provides a definition of interview method, attempting to get as close to its essence as possible and refers to it as interview. Accordingly, it represents a formal discussion between two or more individuals over a topic of mutual interest regarding "the centrality of human interaction for knowledge production, and emphasizes the social situatedness of research data" (Kavale, 1996: 14).

Interviews are an excellent way for learning more about a participant's experiences because interviewers can elicit detailed information about the subject under investigation (McNamara, 1999). Besides, interviews can be beneficial as a follow-up to some questionnaire respondents and a means to delve deeper into their replies. There are two basic objectives of interviewing: discovery and measurement. In other words, the primary goal of an interview is to gather in-depth knowledge and illuminations about specific qualitative aspects, identify new variables, and provide something other than statistical descriptions of existing phenomena in social research, namely opinions, attitudes and feelings; this implies the interview's discovery

component. On the other side of the coin, measurement is believed to be the second objective of the interview method, which enables investigators to assess, value, and define the quality of specific aspects through their investigations.

Evidently, the quality of data acquired in an interview is determined by the interview design and the interviewer's expertise (Fox, 2006). Thus, a poor interview may contain leading questions that might be unclear or ambiguous for informants. On the other hand, respondents' answers might be influenced by the interviewer, as they may provide irrelevant data if the investigator is unqualified to conduct interviews. Qualitative research methodology entails different types of interviews that may be designed according to research objectives and the data being gathered. Structured, semi-structured and unstructured are the three primary forms of interviews. It is most likely that each type involves strengths and weaknesses; Table 2.4 summarises the main pros and cons of the three types of interview.

Type	Characteristics	Strengths	Limitations
Structured interview	-A set of predefined questions is used with a pre-determined order, which provides a high degree of control over the interview processThe answers are short and straightforward. (Stuckey, 2013).	-Interviewee focuses on the target topic area. Making responses comparable across various respondents (Dörnye, 2007)Helps in systematic collection, comparison, organization and analysis of data in large scale population (Mahesh, 2011).	-Limited possibility of variance and spontaneity in responsesLittle freedom and flexibility in asking questions (Dörnyei, 2007).
Semi- structured interview	-It combines some structured questions with some unstructured exploration involving open-ended questions,	-Useful in collecting attitudinal information (Fox, 2006)It provides further depth by allowing the interviewer reflect and	-It is time consumingIt can be unpredictable, high-risk, high-preparation and

	which allows both interviewer and interviewee to have a certain freedom in their discussion (Stuckey, 2013).	elaborate the interviewees' responses (Jong and Jang, 2015).	high-analysis operation (Wengraf, 2001).
Unstructured interview	-It is a conversation between participants that covers some basic subjects with no planned format or predetermined questionsIt serves to gather rich data from interviewee without limitations or constrains. Both interviewer and interviewee have an impact on the interview's direction (Wilson, 2014).	-Offers a maximum flexibility. Provides unpredictable informationCreates a relaxed atmosphere, which allows the informant to express him/herself thoroughly compared to formal situations (Dörnyei, 2007) -Enables individuals to speak for themselves, raising the validity of information (Fox, 2006).	-It is lengthyDifficult to analyseIt could be inefficient as respondents may fail to comply with the area of discussion, or diverge from the initial topic (Fox, 2006).

Table 2.13: Major Strength and Limitations of Different Types of Interview.

Interviews can also be classified according to different methods: individual or group interviews, which can be conducted based on the face-to-face method or through video or telephone conferencing, as illustrated in the next figure. Individual interviews are conducted when the researcher aims to glean a variety of information about a particular subject or context. This method is also applicable if the theme being discussed is sensitive and informants may be reluctant to share their experiences in front of others or if one's declaration is likely to influence others' stories (Hunn, 1998).

On the other hand, group interviews, or what is referred to as "focus group discussions", are discussions involving 8-12 members of similar backgrounds about a topic of shared interest. The discussion can be guided by the investigator; nonetheless, if he finds obstacles in controlling the flow of the talk, he may designate someone from the same research setting to help as a conversation leader. In focus-group discussions, all the members can share their opinions and ideas with each other and even exchange talks and questions, resulting in richness, depth and variety of data (Baral et al., 2016).

The common way to carry out interviews is the face-to-face method, where researchers and informants meet together. Hunn (1998) considers face-to-face interviews the best method to glean high quality data since it allows investigators to establish an in-depth representation of the verbal and non-verbal feedback. What is more, face-to-face interviews are favored when the topic is delicate, when the interview procedure is likely to be lengthy, or if the questions are intricate (Hunn, 1998). Nevertheless, when face-to-face meeting is beyond the bounds of possibility, telephone or online interviews can be employed since considering that these methods are likely to save time and efforts. The next figure represents the different methods of interview.



Figure 2.8: Interview Methods

As far as this investigation is concerned, interviews were conducted in order to gather information relating to teachers' perceptions of the teaching quality in the target field of study. Thus, teachers in charge of English teaching at the Chemistry Department were invited to take part in this research. These participants represent the same sample that had been observed during the first phase of the data collection procedure. Given that the researcher had already dealt with the same participants during the observation process and that she had built a rapport with them, conducting the interview was much more comfortable and easy-going.

The interview followed the semi-structured model because the researcher believed that this type of interview is likely to encourage active participation among informants and raise issues and themes that may not have been considered by the researcher, as it keeps the flow of the conversation organised and controllable while simultaneously allowing informants to express themselves freely. On top of that, the interviewer and informant would have more opportunities to elaborate on meanings or

information while being guided by a predefined set of questions that monitored the interview, so this type was regarded to be the best fit for the research.

As noted previously, the interview was designed to collect information about teachers and their practices; explore their views, beliefs and experiences with ESP teaching, and to investigate their knowledge of pedagogy and specific purpose language content, in addition to elucidating the existing deficiencies and impediments that hamper achieving higher teaching quality from their perspectives.

The introductory phase represented the demographical information about teachers, including: age, degree, area of specialism, years of experience, and affiliation. The second part was comprised of the main questions of the interview, which entails eight rubrics (see Appendix C). The conversation prompts were developed with accordance to McNamara's (2009) guidelines:

- 1) Structuring questions in a way that encourages an open answer.
- 2) Using neutral wording in questions.
- 3) Questions being asked one at a time.
- 4) Straightforward question wording.

Teachers' interview questions revolved around eight major themes, as explained in the following:

***** Teacher Training:

Question 1 aimed to find out the extent to which teachers are prepared to engage in the teaching process and whether they are groomed correctly in ESP setting.

***** Knowledge of ESP:

Question 2 inquired about how ESP teachers gain knowledge and become familiar with ESP, involving teachers' content knowledge.

***** Teachers' skills:

Question 3 questioned about teachers' perceptions of the knowledge required to perform better in ESP teaching.

! Learners' needs:

Question 4 was concerned with learners' needs from teachers' perspectives within the Chemistry Department.

***** Course content:

Question 5 tried to explore the sources of content knowledge that help teachers adapt to ESP teaching.

Question 6 sought to determine the methods that teachers peruse to monitor their lectures and whether they incorporate technology tools in their teaching.

***** Evaluation and assessment:

Question 7 attempted to investigate the assessment methods adopted by teachers in their teaching process.

Question 8 was designed to assess whether teachers use self-assessment procedures (self-reflection, peer- observations, professional portfolios ...)

Question 9 examined the existence of a quality assurance system in the Department.

SP Teaching and its Challenges

Question 10 was concerned with teachers' perceptions about their ESP teaching experience; it aimed to identify the shortcomings in their performance and difficulties they encounter.

Question 11 was aimed at determining the challenges that teachers encounter and how they cope with them.

❖ Quality in ESP teaching

Question 12 attempted to check teachers' perceptions about their teaching performance.

Question 13 served to consider teachers' satisfaction with the teaching environment.

Question 14 sought to give informants an opportunity to suggest ways that would help in improving the quality of ESP teaching situation.

2.5.4.1. Conducting the Interview

Interviews took place in the second semester of the academic year 2019-2020 with a sample population of six ESP teachers. At the beginning, the investigator contacted the teachers and asked them to take part in the interview. Following their confirmation, the investigator arranged with the informants to schedule the best time and location for each of them. As a result, they agreed that the Department library was the best choice in terms of quietness and distance from any source of interruptions. Before the commencement of the interview, the interviewer asked for the informants' consent to record the conversation and prepared her smartphone that was used for this purpose. The majority of interviews were audio-taped and then transcribed. As for the ones who refused to be recorded, only notes were taken by the researcher. Approximately, interviews ranged between 45 minutes and an hour and a half.

The dominant language during the interview was English, but informants were shifting to French and Arabic (Algerian dialect) every now and then when they felt the need to express themselves comfortably. In fact, this did not bother the interviewer since her main concern was related to the information they provided and not the language they spoke.

2.6. Conclusion

This chapter aimed to present a description of the ESP teaching situation at the University of Tlemcen, with a special focus on the Chemistry Department, and elicit the different aspects of ESP teaching and learning. It also aimed to set out an overview of the design and methodological procedures followed by the investigator along the research process, including the design, sampling procedure, instrumentation, and steps of the data collection in the research experiment.

The next chapter will, respectively, provide the analysis and interpretation of data and draw conclusions based on the findings obtained from teachers' and learners' perspectives, therefore finding responses to the research questions, thereby validating or refuting the hypotheses established by the researcher.

Chapter Three: Analytical Framework

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3.1. Introduction

This research is indeed an analytical examination of teaching issues that intends to determine the extent to which there is quality in ESP teaching. Thus, its main aim is to provide an evaluation of the teaching situation in ESP by putting emphasis on the prevalent teaching methods and practises that teachers pursue. In a few words, how ESP is taught in an Algerian context.

The present chapter is meant to set forth the analysis of the data gathered in this research work and present its main findings. Interpretations will be displayed by the researcher based on the data obtained from the different research tools used throughout the study, mainly students' questionnaires, teachers' interviews and classroom observations. In effect, this research settled on a mixed-method approach; therefore, data analysis was determined depending on quantitative and qualitative indicators. Furthermore, key themes and issues stated previously will be discussed in this part.

3.2. Data Analysis Procedures

Data analysis is the process of bringing facts and information together to address a research topic and find answers to research questions. To this end, the raw data collected throughout an investigation is systematically analysed and interpreted so as to draw inferences and conclusions about a particular issue or phenomenon. In any research work, two types of data can be collected: The first type might be in numerical form, which is referred to as quantitative data. The second type focuses on exploring opinions, attitudes and behaviours of research participants; this implies qualitative data.

As stated earlier, the data collection procedure in the current research work entailed three stages, starting with students' questionnaires, followed by teacher interviews, and then classroom observation. Each stage will be analysed in the following, and the findings will be presented accordingly. Quantitative data, which

depends on descriptive statistics, will be analysed using the SPSS package. While qualitative data will be interpreted by the researcher.

3.2.1. Quantitative Data Analysis

Basically, quantitative data refers to information that is based on numbers and categories. Hence, the analysis of this type of data requires a systematic process that relies on the use of statistics and mathematical procedures. These procedures may vary from simple descriptive statistics to more complex ones, noting that the type of procedure depends on the research question and the type of collected data as well (Dörnyei, 2007). In quantitative analysis, the obtained data is represented numerically, which is then converted to statistical models, tables and graphs in order to facilitate the interpretations.

A quantitative approach usually has two major benefits. First, it enables researchers to put forward conclusions, summaries, classifications and observations in a systematic manner. These strategies are referred to as descriptive statistics. Second, it makes it easier for researchers to exhibit and explore a phenomenon that exists in a large population by investigating the issue with a narrow group of people. So to speak, the findings obtained from the systematically designated sample can be generalised and applicable to the entire population (Cowles, 2001). To put it in a nutshell, all the procedures, approaches, results and conclusions are quantified as inferential statistics (Ali, 2021). Singh and Singh (2015:1) claim that quantitative research is generally conducted using scientific methodologies such as:

- ❖ The generation of models, theories and hypotheses;
- ❖ The development of instruments and methods for measurement;
- **Experimental control and manipulation of variables**;
- Collection of empirical data;
- ❖ Modelling and analysis of data.

A variety of specialised programmes are available for undertaking quantitative data analysis. In the present research work, the researcher used the

Statistical Package for Social Sciences version 24 (IBM SPSS 24), as it is a more user-friendly statistical package for analysing quantitative data. Actually, SPSS is helpful to clarify research data and diagnose inconsistencies (Awang, 2019). Given that, the SPSS package was employed for the purpose of measuring the extent to which students perceive that the English teaching context in the Chemistry Department is of quality. Therefore, the only instrument that relies on this sort of analytic method is the students' questionnaire, in which findings were represented in descriptive statistics in the form of numbers, percentages, means and standard deviations. Afterwards, all the information was classified into tables and diagrams to ease the interpretation process of the results.

Quantitative research is most effective when researchers aim to convey considerable data from a wide range of units. However, it might be too superficial if one intends to conduct an in-depth investigation. In such cases, qualitative techniques will be required in order to get under the skin of an issue or phenomenon and explore it appropriately.

3.2.2. Qualitative Data Analysis

Qualitative data analysis is concerned with the two remaining research instruments: teachers' interviews and classroom observation, in addition to some questions in the students' questionnaire. Cohen et.al., (2007: 461) put forward that "Qualitative data analysis involves organizing, accounting for and explaining the data; in short, making sense of data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities". Accordingly, within qualitative data analysis, the mass of words and feedback acquired from interviews and on-site observations will be described and discussed.

Data analysis is a complex and contested part of the qualitative research process. There are three key elements that are essential in conducting successful qualitative research. Grbich (2013: 1) refers to them as the 3 p's: person, process and presentation.

- Person: involves the researcher and how his or her perspectives and decisions influence data collection and analysis during the research process.
- ❖ *Process:* is concerned with the design and methodologies as well as the quality of the data collected.
- ❖ *Presentation:* refers to the presentation of results and theoretical interpretations of the analysed data.

The ultimate purpose of using a qualitative approach is to make inferences regarding a variety of teaching and learning issues in ESP, including teaching practises, learners' needs and wants, classroom environment and instructional materials. Furthermore, this type of data enables the researcher to compile a wide range of feedback and viewpoints about crucial matters related to the research objectives.

In the current study, teachers' interview and classroom observation data were analysed qualitatively, in addition to learners' questionnaire's open-ended questions, in which students were asked to express their perspectives about the ESP course they receive at the Chemistry Department. After the analysis of the qualitative data, the researcher attempted to link all of the data results, both quantitative and qualitative, and discuss the research issues from different angles in order to find answers to the research questions set at the onset of the study.

3.3. Data Coding

Once the needed data for the study is collected; "the researcher begins the process of turning raw data into data structures that can be used in generating meaningful and useful information" (Awang, 2019). In the same fashion, Stake (1995: 71) defines data analysis as a "matter of giving meaning to first impressions as well as to final compilations". Thus, the researcher conducts in-depth readings of the information gathered, makes reflections, creates summaries and proposes conclusions.

The first stage of analysis will be devoted to students' questionnaire to put on view their perceptions about the quality of ESP teaching. Afterwards, data coding will encompass teachers' interview, moving to classroom observation, which were carried out with the same sample (ESP teachers). The obtained feedback from the researcher's observations about ESP teachers will be displayed in order to elucidate the actual instructional context of ESP teaching in the Chemistry Department.

3.3.1. Students' Questionnaire Analysis

Data gathered from students' questionnaires is analysed in this phase. Basically, the questionnaire was used in this study to examine the quality of ESP teaching from learners' perspectives, and explore their satisfaction with the existing ESP teaching situation. Therefore, it was divided into different parts, each intended to examine specified aspects.

370 questionnaires were distributed to students enrolled in the Chemistry Department. Yet, the researcher had 315 questionnaires returned from the overall number. This number was reduced to 305 after cancelling 10 incomplete questionnaires.

***** Questionnaire Participants

The participants in this study were 305 students from the different levels of the Chemistry Department. 244 of the respondents were female students, representing 80% of the total population, and 61, representing 20% of the population, were male students.

In terms of the distribution of students by year of study, 94 (30.8%) of the sample population belonged to L1, 85 (27.9%) of the informants were enrolled at L2, 82 (26.9%) of them were at L3, and 44 (14.4%) were students enrolled at Master 1. It is worth mentioning that there was a total absence of students from the Master 2 category since questionnaires were distributed at the end of the ESP course, that is to say, in the second semester of the academic year. During that

period, Master 2 students do not attend any classes in this department. Figure 3.1 illustrates the percentages.

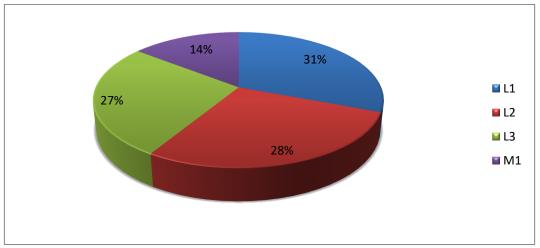


Figure 3.1: Participants Breakdown by Year of Study

❖ Part One

The first part was devoted to exploring learners' attitudes and perceptions towards learning English and determining the extent to which they consider the current ESP teaching situation beneficial and convenient to their needs and wants. This part was divided into two rubrics, each of which entailed different items. Rubric one was made up of multiple-choice items, whereas rubric two consisted of Likert scale items.

Rubric One: Learners' attitudes

Item 1: The role of English in future studies

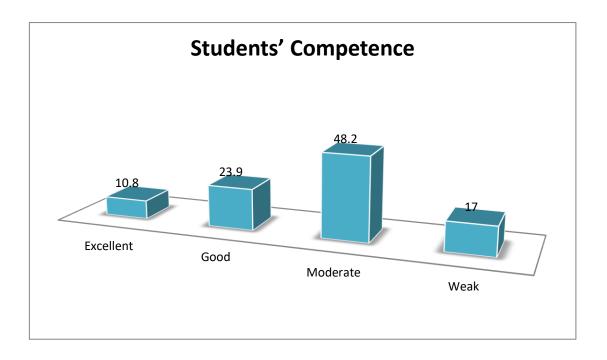
This question served to elucidate students' attitudes towards English and whether they consider it beneficial to their future studies. 90.5% of the sample population agreed that English is important for their future studies, 4.3% disagreed, and 5.2% were unsure.

Item 2: The role of English for better jobs

Based on the results obtained, the majority of students (76.4%) believed that being competent in English would offer them many opportunities to have a job and that this factor is advantageous for having chances to get better professions; 14.4% were not sure and about 9.2% of the population did not agree.

Item 3: Students' level of English before ESP course at University

Students with excellent English competence prior to attending English classes made up only 10.8% of the population. 23.9% had good competence, while the majority had a moderate command of English, with a percentage of 48.2%. The remaining 17% of the participants responded that they had a weak level of English Language. The following bar-graph illustrates the results.



Bar-graph 3.1: Students' Competence in English

Item 4: Students' attitudes towards ESP course

In this question, the researcher attempted to check students' attitudes by examining the extent to which they appreciate English classes provided at the Chemistry Department. The results showed that 68.2% of the participants considered English interesting, while 31.8% did not share the same opinion.

Item 5: Needs Analysis

The last question of this rubric aimed to find out whether ESP teachers pursue needs analysis during their teaching in the target case by conducting tests at the beginning of the English course to identify learners' needs. Based on the findings, 14.1% of the participants confirmed that their teachers did carry out such a process at the beginning of the course; yet, the majority (85.9%) responded that they did not have any form of needs analysis procedure.

Rubric Two: Learners' Perceptions about ESP Course

This part is aimed at examining students' general perceptions of the current ESP course. Seeing that some items related to the research objectives were not tackled in the original CEQ, the researcher decided to make some modifications. Therefore, a set of questions was added in this part. It consists of five items that were analysed based on a Likert scale of five points, which ranged from 1 (strongly disagree) up to 5 (strongly agree), further descriptions are depicted in Table 3.1.

Numerical Scale	Descriptive Equivalent	Weighted Mean Interval Scale
1	Strongly disagree	1.00 - 1.79
2	Disagree	1.80 - 2.59
3	Neutral	2.60 - 3.39
4	Agree	3.40 - 4.19
5	Strongly agree	4.20 - 5.00

Table 3.1: Likert Scale Interval

> Students' Perceptions of ESP Course

As it is represented in table 3.2, the majority (24.9%) of the informants were neutral about question 1 (the content of the English course meets my needs), with a mean of 3.30 and a std. deviation of 1.117. Question 2 (The topics in English classes are relevant to my field of study) had a 4.09 mean and a std. deviation of 0.773, which indicates that most participants agreed, with 61% of the participants confirming the statement. As for question 3 (interesting materials are used in English classes), the mean was 2.97 and the std. deviation was 1.125. This implies that this question is ranked as neutral according to the interval scale. Furthermore, question 4 (I am able to understand the content of the lessons easily) had a mean of 3.38 and a std. deviation of 1.060, expressing the agreement of the majority of participants. When asked about their satisfaction with the ESP course (question 5), informants expressed, as the mean of this question was 2.77 with a 1.256 std. deviation, which indicates that they were neutral about this item.

Questions		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std. Deviation
The content of	N	34	121	76	49	25	3.30	1.117
English course meets my needs	%	11.1%	39.7%	24.9%	16.1%	8.2%		
The topics in English classes are relevant to	N	82	186	22	11	4	4.09	0.773
my field of study.	%	26.9%	61%	7.2%	3.6%	1.3%		
Interesting materials are	N	23	90	76	87	29	2.97	1.125
used in English classes.	%	7.5%	29.5%	24.9%	28.5%	9.5%		
I am able to understand	N	32	138	64	55	16	3.38	1.060
the content of the lessons	%	10.5%	45.2%	21%	18%	5.2%		

easily.								
I am satisfied	N	20	90	58	74	63	2.77	1.256
with the English	%	6.6%	29.5%	19.5%	24.3%	20.7%		
course.								

Table 3.2: Descriptive Statistics for Students' Perceptions of ESP Course

Part two: Course Experience Questionnaire

This part is concerned with representing the data gathered by CEQ, which was comprised of five major scales: Good teaching scale, clear goals and standards scale, appropriate workload scale, appropriate assessment scale, and generic skills scale. Each scale will be analysed separately. It must be noted that the analysis of this part will deal with the values of the scales as a whole, in which each scale will be ranked as high level, moderate level or low level. More explanations will be found in the next sections.

Good Teaching Scale

Good teaching scale (henceforth, GTS) included eight items that attempted to demonstrate how students at the Chemistry Department consider the quality of ESP teachers. The investigated aspects included teachers' competences, motivation, feedback and teaching materials.

Questions		Strongly	Agree	Neutral	Disagree	Strongly	Mean	Std.
		Agree				Disagree		Deviation
1.The teacher of	N	28	112	60	71	34	3.10	1.187
English motivates								
me to do my best	%	9.2%	36.7%	19.7%	23.3%	11.1%		
in learning the								
language								
2.The teacher of	N	27	110	67	69	32	3.10	1.164
English put a lot								
of time into	%	8.9%	36.1%	22%	22.6%	10.5%		
commenting on	70	3.5 ,0	2.3.2 / 0	,		20.070		
my activities								

3.The teacher of	N	29	88	75	82	31	3.01	1.61	
English makes a									
real effort to	0/	0.50/	20.00/	24.60/	26.00/	10.20/			
understand my	%	9.5%	28.9%	24.6%	26.9%	10.2%			
difficulties									
related to the									
language									
4.The teacher of	N	26	72	64	105	38	2.81	1.179	
English gives me									
helpful feedback	%	8.5%	23.6%	21%	34.4%	12.5%			
on how I'm									
going.									
5.The teacher of	N	25	95	87	77	21	3.09	1.079	
English is good at									
explaining things	%	8.2%	31.1%	28.5%	25.2%	6.9%			
related to my	70	8.2%	31.1%	28.3%	23.2%	0.9%			
field of study in English.									
6 The teacher of	N	28	78	99	70	30	3.01	1.118	
English works	11	20	70		70	30	3.01	1.110	
hard to make the									
course of English	%	9.2%	25.6%	32.5%	23%	9.8%			
interesting and									
useful						_			
7. The teacher of	N	25	108	59	74	39	3.02	1.200	
English uses									
interesting materials related	%	8.2%	35.4%	19.3%	24.3%	12.8%			
to my field of									
study									
8.I have no	N	26	93	63	81	42	2.93	1.209	
difficulty to									
understand the									
content of	%	8.5%	30.5%	20.7%	26.6%	13.8%			
materials (textbooks,									
articles)									
Weighted mean								3.0086	
			d. deviati						
		.82498							

Table 3.3: Descriptive Statistics for GTS

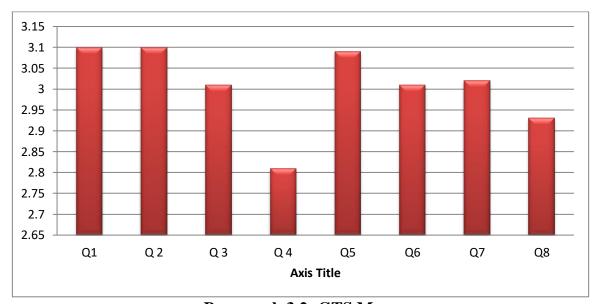
As far as GTS is concerned, it is illustrated in Table 3.3 that all the items (from Q1 to Q8) had mean scores between M = 2.81 and M = 3.10. Furthermore, the weighted average of GTS was 3.0086 and the std. deviation was .82498, indicating that the category of this scale is "neutral" according to Likert scale (as explained in Table 3.1). Given that the value of the weighted mean (M = 3.0086) is placed in the interval (2.60-3.39), the average of the good teaching scale is ranked as "moderate level" given that the intervals of levels are as demonstrated as follows:

➤ Low level: 1.00-2.59

➤ Moderate level: 2.60-3.39

➤ High level: 3.40-5.00

What was noticeable is that Q4, which was about teachers' continuous feedback, had the lowest value with a mean of 2.81. This was clearly apparent in the following bar-graph.



Bar-graph 3.2: GTS Mean

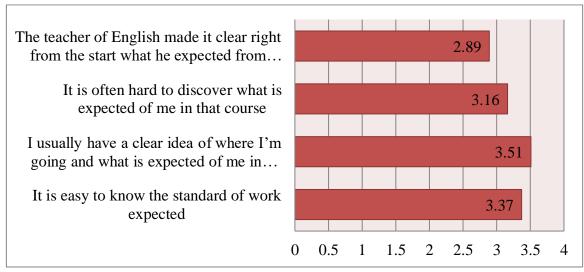
Clear Goals and Standards Scale

This Scale (henceforth, CGSS), is composed of four items, sought to explore the clarity and appropriateness of goals and objectives in the ESP course.

Questions	Questions		Agree	Neutral	Disagree	Strongly	Mean	Std.
		Agree				Disagree		Deviation
9. It is easy to know	N	18	147	79	51	10	3.37	.940
the standard of work expected	%	5.9%	48.2%	25.9%	16.7%	3.3%		
10.I usually have a clear idea of where I'm going	N	33	161	50	52	9	3.51	.994
and what is expected of me in this course.	%	10.8%	52.8%	16.4%	17%	3%		
11. It is often hard to discover what is	N	24	105	81	87	8	3.16	1.013
expected of me in that course	%	7.9%	34.4%	26.6%	28.5%	2.6%		
12. The teacher of English made it clear	N	19	80	85	89	32	2.89	1.102
right from the start what he expected from students	%	6.2%	26.2%	27.9%	29.2%	10.5%		
Weighted mean 3.2328								
Std. deviation .64373								

Table 3.4: Descriptive Statistics for CGSS

As shown in Table 3.4, the highest average was awarded to Q10 with a mean of 3.51 and std. deviation of .994, in which the majority of participants agreed that they know what they are expected to do in the ESP course. Q9 was the next in rank with a mean of 3.37 and a std. deviation of 0.940, followed by Q11 with a mean of 3.16 and a std. deviation of 1.013. Whereas, Q12 had the lowest average with a mean of 2.89 and a std. deviation of 1.102. The weighted average of this scale was mean = 3.2328 and std. deviation = .64373, which implies that the trend of clear goals and standards scale is "neutral". Hence, this scale is classified in "Moderate level". For more explanation, the next bar-graph was included.



Bar-graph 3.3: CGSS Mean

Appropriate Workload Scale

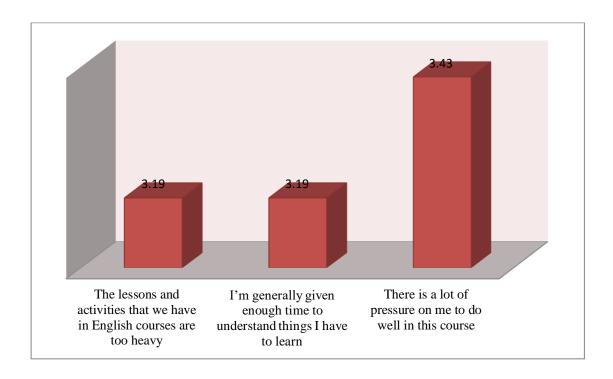
Appropriate workload Scale (henceforth, AWS) was meant to examine the appropriateness of the workload and its consistency with the time allotted to the ESP course. It consists of three items; the next table describes the results.

Questions	Questions		Agree	Neutral	Disagree	Strongly	Mean	Std.
		Agree				Disagree		Deviation
13. The lessons	N	24	107	90	71	13	3.19	1.018
and activities that								
we have in the	%	7.9%	35.1%	29.5%	23.3%	4.3%		
English courseare	, -	, ,,		_,,		,		
excessive								
14. I'm generally	N	22	128	60	75	20	3.19	1.089
given enough								
time to	0/	7.20/	420/	10.70/	24.60/	6.60/		
understand things	%	7.2%	42%	19.7%	24.6%	6.6%		
I have to learn								
15. There is a lot	N	67	101	57	55	25	3.43	1.242
of pressure on me								
to do well in this	%	22%	33.1%	18.7%	18%	8.2%		
course								
Weighted mean 3.2								2678
Std. deviation								.62367

Table 3.5: Descriptive Statistics for AWS

According to the results illustrated in Table 3.5, it was claimed by roughly half of the students that the workload was heavy, 29.5% were moderate, and 27.6% disagreed. The mean score of Q13 was 3.19; hence, the average of this question was "neutral". As for Q14, informants reported that 49% agreed that they were given enough time to understand the content of lessons, 19.7% were undecided, and 31.2% disagreed. This item carried a mean of 3.19, which means that it is ranked under the option "neutral" as well. The last item on this scale examined whether there was pressure on the students to make good results. 55.1% agreed, 18.7% were neutral, and 26.2% disagreed, and the mean regarding Q15 was 3.43, which indicates that the majority of students "agree" that the workload is excessive.

Overall, AWS lies at a "moderate level", as its weighted mean score was 3.2678 with a Std. deviation of .62367. These results are illustrated in bar-graph 3.4.



Bar-graph 3.4: AWS Mean

Appropriate Assessment Scale

In this scale (henceforth, AAS), the researcher aimed to inquire about the assessment methods and the practices that teachers undergo within the current ESP course.

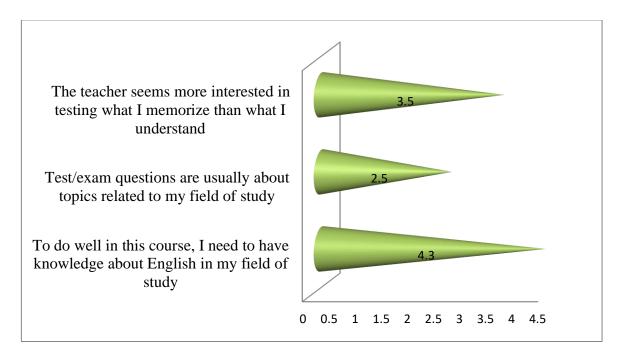
Questions	Questions		Agree	Neutral	Disagree	Strongly Disagree	Mean	Std. Deviation	
16. To do well in	N	115	135	33	16	6	4.10	.929	
this course, I need									
to have	%	27.70/	44.3%	10.8%	5.20/	2%			
knowledge about	%	37.7%	44.5%	10.8%	5.2%	2%			
English in my									
field of study									
17. Test/exam	N	76	174	35	12	8	3.98	.871	
questions are									
usually about	%	24.9%	57%	11.5%	3.9%	2.6%			
topics related to	/0	24.770	3770	11.570	3.770	2.070			
my field of study									
18. The teacher	N	18	62	81	86	58	2.66	1.171	
seems more									
interested in	%	5.9%	20.3%	26.6%	28.2%	19%			
testing what I									
memorize rather									
than what I									
understand									
Weighted Mean 3.5								5803	
	Std. Deviation								

Table 3.6: Descriptive Statistics for AAS

Table 3.6 shows that the first question of AAS pertains to "agree level" as the mean score was 4.10. More than half of the participants confirmed that they need to have knowledge about English related to their field of study, with 37.7% of the students answering "strongly agree" and 44.3% "agree". In the next item of this scale, about 82% of the students agreed that test and exam questions are about topics related to their field of study, with a mean of 3.98 and a std. deviation of .871. As for the last item, results reflected polarisations of opinions between agree

(20.3%), neutral (26.6%), and disagree (28.2%), as appears in Table 3.6. The mean score was 2.66, implying that this question is classified in the "neutral" category. That is to say, teachers seemed to be interested in assessing learners' skills rather than counting solely on the recall of information.

AAS was awarded a "high level" as its mean was 3.5803, which indicates that the assessment procedure can be regarded as effective in the case under study. These results are represented as follows:



Bar-graph 3.5: AAS Mean

Generic Skills Scale

The Generic Skills Scale (henceforth, GSS) is concerned with checking out students' satisfaction with the ESP course they receive at the department. More precisely, it attempted to inquire about the development of their skills after the ESP course in order to identify its effectiveness.

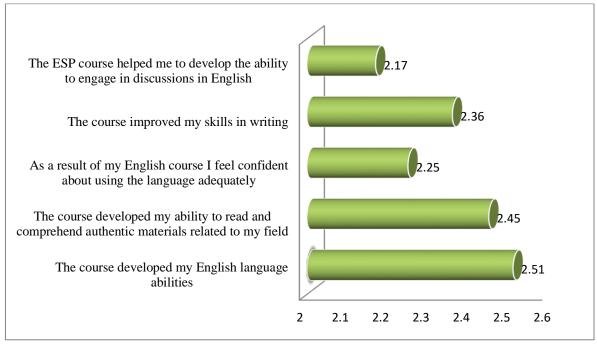
Questions		Strongly	Agree	Neutral	Disagree	Strongly	Mean	Std.
		Agree				Disagree		Deviation
19. The course developed my	N	9	61	67	107	61	2.51	1.110
English language abilities	%	3%	20%	22%	35%	20%		
20. The course developed my	N	8	51	68	121	57	2.45	1.057
ability to read and comprehend authentic materials related to my field	%	2.6%	16.7%	22.3%	39.7%	18.7%		
21. As a result of my English course I	N	4	33	72	121	75	2.25	0.988
feel confident about using the language adequately	%	1.3%	10.8%	23.6%	39.7%	24.6%		
22. The course improved my skills	N	7	51	54	127	66	2.36	1.068
in writing.	%	2.3%	16.7%	17.7%	41.6%	21.6%		
23. The ESP course helped me to	N	8	26	64	120	87	2.17	1.022
develop the ability to engage in discussions in English	%	2.6%	8.5%	21%	39.3%	28.5%		
		Weighte	d Mean				2.3	3482
Std. Deviation .88886								

Table 3.7: Descriptive Statistics for GSS

Based on the results represented in Table 3.7, it is obvious that participants were not satisfied with the quality of the ESP course provided. In this respect, more than half of the students (55%) disapproved that they had developed their English abilities, and 22% were undecided, with a mean score of 2.51. Regarding their reading skills, 58.4% of the participants denied that their ability to read and comprehend authentic materials was very limited even after the English classes they

had during the ESP course, and this is clear from the low mean level, which was 2.45. Q21 revealed a low mean score as well (M = 2.25), indicating that students did not feel confident in using English adequately. Furthermore, Q22 revealed that more than 72% of participants contended that they had not realised improvement in their writing skills after the course. The lowest mean score on this scale (M = 2.17) represented 67.8% of the respondents who claimed that they did not achieve the ability to engage in discussions in English, referring to the low oral skills they had.

With a weighted mean of 2.3482, GSS is classified in the "low level" category since the major values denote disagreement. These results are clarified in the next bar-graph.



Bar-graph 3.6: GSS Mean

Part Three

In the last part of the questionnaire, students were given a free space to highlight the positive sides of teachers' practices and draw attention to the things they wished to find in the course. In this respect, the first question aimed to identify the most effective activities, and the second one provided suggestions for improving the teaching quality from their perspectives.

© Perceptions about Effective Practices in ESP Course

Considering that the English syllables and the content of courses in the Department of Chemistry vary according to the year of study, there were a variety of opinions regarding the preferable practices in the classroom. For L1, students showed a tendency towards reading texts and speaking activities, mainly classroom discussions. Furthermore, they expressed approval for all the activities that make them knowledgeable about matters related to their field of study, such as getting to know the names of the laboratory equipment and chemistry-related vocabulary.

As far as L2 students are concerned, it was apparent that translation was one of the most preferable activities in ESP classes. In such activities, students translate texts from English to French, since it is the language of instruction in the department, and vice versa. In addition to translation, learners approved of reading comprehension and explaining terminologies, as well as having discussions in the classroom. They also reported that they enjoy dictation and writing expressions.

In the case of L3, learners were inclined towards grammar and reading and discourse comprehension in addition to discussions and conversations with their classmates. They also reported that they enjoy learning about everything related to chemistry in English. Nonetheless, it was noticed that the majority of students did not find teachers' practices beneficial for them. In this respect, there were a handful of participants who answered this question, while the majority of them left negative comments in this section, such as "there is nothing interesting in this course", "nothing!", "I cannot answer, I seldom attend the lectures because of the excessive workload and because I do not understand anything in English", "there is no activities or practices that motivate me", "it is boring to attend the English class", "we do not do any activities in English classes", "I dislike all the activities that we do in class, nothing attracts my interest", "English classes are just a waste of time, students are learning English by themselves and in private schools, so the problem is inside the department" and some others left it blank.

As learners advanced towards the Master's degree, their awareness and interest in English increased. Students in Master 1 were interested in improving all four skills, with a special focus on speaking and writing. This was due to the fact that some specialties in this field require students to use English in their graduation projects. As a result, students needed to have efficient competence in English since they had to produce their graduation dissertations in English. Besides, they also had to have adequate speaking skills in order to be able to express themselves correctly on the day of the thesis defence. Hence, writing scientific passages and doing oral presentations were advocated in this course, in addition to all the practices mentioned above by L3 students.

On the flip side, a lot of participants expressed dissatisfaction and had a negative attitude towards the English course as a whole. They argued that "the activities are boring" and "nothing is interesting or motivating in this course", "there is no creativity, it is always about hand-outs, reading and learning by heart, we need variation in classroom activities". Some students mentioned that they attended English sessions to mark their presence only since they could not achieve much improvement in their language competences. Yet, other participants confessed that some factors intervene, such as the lack of English sessions, bad timing and excessive workload, which are critical factors that hinder them from making much effort to do well in the English course.

Suggestions to Improve the Teaching Quality in ESP Course

When offered a chance to provide possible resolutions to help enhance the teaching quality, different needs and wants at different levels were pointed out. Basically, suggestions were addressed to teachers, administration and others concerned with students. In order to make things easy to understand, all the comments received from questionnaire responses were organised and categorised by the researcher as follows:

a) Give much importance to needs Analysis

It was claimed that not all teachers conducted needs analysis. This, in fact, made teachers unaware of the students' actual language needs and wants, and it would be difficult to strike a balance between learners' levels, and devising lessons that meet the needs of all students would be a tough challenge that might not be achieved.

b) Motivation

The major issue faced by students was the lack of motivation. Learners expressed unwillingness to attend English classes because they found them "boring" and "demotivating", as reported by some participants. According to them, this was due to the practices of teachers and the repetition of the same learning activities. Further, it was confusing for students with low language abilities to fathom what was going on in the classroom, and they found it difficult to take part in any task. Thereupon, teaching enthusiastically and being creative by altering the teaching methods and activities, using interesting topics and implementing strategies that urge students to learn would help raise their motivation to study English.

c) Teaching time allotted to the ESP course

The large majority of the participants considered that one session was definitely insufficient to improve their skills. Consequently, they suggested including more than one session per week and devoting at least one of these sessions to practising speaking and writing since they need to focus on these skills in order to be able to communicate effectively and produce coherent academic texts. Moreover, many of them proposed raising the coefficient of the English module so as to increase its significance among students and encourage them to attend the course.

d) Focus on English language skills

Another point that was raised by informants was the importance of teaching language skills before moving on to teaching purely scientific language. To put it simply, course content should be divided between skills and content. That is, teaching language skills first in order to help learners improve their English to the point where they will be ready to comprehend and acquire the language in context. Moreover, the majority of learners strongly demanded that more opportunities be afforded to practise speaking and stressed the use of diverse activities that aim to improve their speaking competences.

e) Considering the homogeneity of groups

Large class size is regarded as a critical phenomenon in the case under study. Teaching more than a hundred students with varied learning backgrounds and abilities in an amphitheatre would certainly affect the teacher's performance and the learners' as well. Instead, learning in small groups in classrooms would make teachers more comfortable and productive, which would in turn affect learners positively and lead to better learning results.

f) Creativity and use of technology

There was a total absence of technology in English classrooms in the Chemistry Department. Taking into account that learners belong to a scientific stream, which signifies that they are accustomed to learning by experiment, participants suggested that introducing technology and information tools as well as engaging them in activities that make them take action would make a difference in their learning process.

g) Hiring competent teachers

The majority of teachers hired in the Chemistry Department are General English graduates holding master's degrees. Hence, participants pointed out that teachers seemed inexperienced and did not perform efficiently and effectively in class. Furthermore, many participants complained about teachers making mistakes regarding matters related to their field of study. Consequently, they accentuated the need to hire English teachers with scientific backgrounds in ESP contexts, since this category would have at least a basic knowledge of scientific streams.

h) Taking into account group work

Collaborative learning or group work is highly recommended to foster language learning, which seems to be neglected in this department. Teachers rarely utilize activities in which students engage in group or collaborative work. Further, there was a noticeable absence of oral communication between learners, mainly classroom discussion, debates or team assignments. Apparently, learners in the Chemistry department had a dissenting opinion since they advocated these kinds of learning activities according to the answers provided in the questionnaire.

i) Autonomous-learning

According to the respondents, teachers are not the only ones to blame. Even learners themselves are required to make efforts for the sake of raising the quality of teaching. They claim that students have to attend the English classes regularly and be diligent, train themselves to be autonomous learners by doing their homework and reading books and articles, take advantage of listening to music and watching films to improve their language, and allot sufficient time to English learning.

3.3.1.1. General Comments on Questionnaire Results

The results of this part of the questionnaire indicated that students in the Chemistry department were conscious of the significant role of English in their academic and professional careers and showed positive attitudes towards learning English in general. Nonetheless, the majority of them appeared to have a dissatisfactory level, indicating that they are unable to learn the field-specific language thoroughly. That is to say, they still need to improve their general English competence in order to be able to dig deeper and acquire English for specific

purposes. This, in fact, makes it challenging to strike a balance between the competences they have and learning the language that is related to the specific field of study. Besides, teachers in this department did not give the required attention to the needs analysis since they seldom undertake this kind of procedure, which is done by a few teachers only.

As far as the ESP course is concerned, it was revealed that despite the fact that the topics of the course are related to their field of study, which increased their ability to understand the content of the lessons; the course does not satisfy their needs and wants. This is, perhaps, due to the teaching methods, the type of activities, or other factors related to the congruence of the course with learners' needs.

As for learners' perceptions of teachers' performance, the results corroborate that there was a diversity of opinions among students. Some of them expressed satisfaction about ESP teaching, while the majority did not share the same stance. Based on the results obtained from the *good teaching scale*, the teaching situation was not motivating and encouraging to a great extent, and teachers were not keeping track of learners' performance in a way that is supposed to urge them to learn. Likewise, they were not providing constant feedback to orient students and help them identify their strengths and weaknesses. Also, students' answers were dispersed between a group who approved that teachers use adequate teaching materials and that the content of these materials was comprehensible and easy to understand and others who opposed.

Regarding goals and standards, there was a relative agreement among learners that the goals and standards were lucid and easy to recognise. In this respect, participants considered that they were able to know what was expected of them given that teachers set and explained the goals and objectives right from the beginning of the course.

Appropriate workload is the following scale, in this concern the majority of participants confirmed that there was pressure on them to do well in this course.

Besides, roughly half of the participants considered that the workload was too heavy. Yet, the others reported that they had enough time to fathom and catch on the content they learn.

There was great agreement that test and exam questions often revolved around topics related to the field of study. That translates to the fact that students should have efficient knowledge about specific-field English in order to do well. On the other side, informants endorsed the idea that teachers are more concerned with learners' competence and understanding rather than what they learn by heart and memorise.

With regard to generic the skills scale, results showed that there was little satisfaction with ESP course according to students' perspectives. Most of them expressed disapproval on the questionnaire's items of this scale, which intended to reassure the improvement of their English language skills, both receptive and productive, and what was notable is that the lowest value was awarded to communication. Hence, after a whole course of English study, learners are still unable to engage in conversations in English and speak accurately.

3.3.2. Teacher Interview Analysis

This section is concerned with the analysis of the interviews conducted with ESP teachers. It is worthy to mention that the sample encompassed six informants: one full-time teacher and five part-time teachers. The interviews were structured based on a pre-determined list of questions in which various aspects were highlighted, including teacher skills and training, learners' needs, assessment and evaluation, and teachers' challenges in ESP contexts.

❖ Teacher Training

For the purpose of discovering the extent to which teachers are prepared to perform effectively, the researcher asked the informants about the way they were employed as ESP teachers and whether they had any sort of academic training (Q1: Did you have any training in teaching ESP courses?). Surprisingly, five out of six

teachers asserted that there were no clear standards or criteria required to appoint ESP teachers in the Chemistry Department, as apparently is the case in the majority of the other departments at the university.

One of them was a doctoral student, she said:

"It is so easy to have a chance to teach here, you just come and tell them that you are a doctoral student and show them your certificate of registration and, congratulation, you will have the job"

Furthermore, the same informants declared that they had no official or specific training except for one of them, who was a full-time teacher. She said that she had to pass a contest before obtaining the job. Also, she was the only teacher who had in-service training that lasted for one year.

She claimed that:

"The training I had was very effective and helped me a lot to cope with the difficulties that may be encountered by any teacher in terms of pedagogy, classroom management and how to get familiar with the teaching situation in the Algerian context. It was fruitful in enhancing my performance; despite the fact that I was newly recruited and did not have enough experience."

She added: "it is essential to provide further career progression opportunities to constantly enhance teachers' performance and refresh their memories about things they have already known in case they forget about them, and take advantage of others' experiences."

It must be noted here that the training was provided to all newly recruited teachers at the University of Tlemcen. That is to say, the training was purely pedagogical and not designed for language teachers or ESP teachers in particular.

❖ Knowledge of ESP

Given that most teachers did not have training or preparation, another question was raised in order to discover how they could adapt to and become acquainted with ESP teaching (Q2: How did you get familiar with ESP?). Informants answered that they strived to construct the needed competences by themselves, relying on researching information from the different resources on the internet by reading books, articles that are related to ESP teaching and learning, using scientific dictionaries and thesaurus, in addition to watching videos on YouTube. Others reported that they usually ask for help from other colleagues and friends who have knowledge of ESP. One of the teachers said:

"I was an EFL student, so I made my own research about ESP from the internet by watching videos, reading books and articles with some help from my friends who are specialised in ESP".

Another teacher asserted:

"Actually, I was lucky concerning this point because my graduation research project was about ESP teaching and learning issues, so I already had some acquaintance about it and I also had considerable resources that helped me a lot in my teaching in this department"

* Teachers' Skills

Teachers were asked about the type of knowledge language teachers need in order to teach ESP (Q3: Taking your experience into account, what type of knowledge a language teacher needs in order to teach ESP?). Most of the answers revolved around two major points: linguistic knowledge and content knowledge (according to the area of specialisation), while some of them talked about the knowledge of ESP considerations such as needs analysis, course design, material development, and assessment.

One the informants said:

"The teacher has to be dynamic, flexible and creative in order to adapt into the situation where he is. That is to say, regardless the fact that an ESP teacher has to master the English language, he also needs to constantly seek for knowledge about the speciality he is in charge with, the type of students he is dealing with and many other factors that should be taken into account, such as students' needs and wants, and designing appropriate syllabus for them".

Another teacher claimed:

"According to my little experience, we, as ESP teachers, need to be aware of the basics of the content knowledge, but the most important thing is the knowledge of the language because we are here to teach them English and improve their skills".

In the same line of thought, another one asserted:

"What matters for me most are the language skills, this is why I try to make a variation in the type of activities we do in the classroom. Every session should include listening, speaking, writing and speaking activities"

***** Learners' Needs

The fourth question of the interview is aimed at investigating the extent to which teachers are aware of the actual needs of their students, which are supposed to be determined based on a structured needs analysis (Q4: According to you, what are the needs of students regarding ESP in the chemistry context?). Nevertheless, the majority of informants concentrated on a set of aspects related to pedagogy instead. When they were asked if they had carried out a needs analysis, most of them confirmed it. Yet, it was revealed that they were used to doing it merely by asking students at the beginning of the course the question "What do you want or need to learn?" and, based on the answers, teachers planned their lectures. Except for one teacher who confirmed that she conducted a thorough needs analysis prior to

enrolling in any course. She believed that "learners' need to learn the subject matter in English, along with learning general English."

For example, one of them maintained:

"Students need to get involved in a productive atmosphere to get ready for the learning process, get provided with effective materials to achieve better results. They also need to acquire and develop the language in order to use it effectively in the target situation".

While another informant contradicted the abovementioned and claimed:

"In the current situation, we may say that we are a bit away from what ESP teaching really means because students in this department lack the basics of general English, which is the big challenge for me". She added: "According to me, the acquisition of the specialised vocabulary is the core of ESP teaching, but I found myself lost between teaching chemistry-specific English and teaching the basics of general English to learners with very weak levels".

Course Content

Teachers were asked about the way they prepared for the ESP classes (Q5: What are the sources for your ESP content knowledge? and Q6: How do you prepare for your ESP classes, and do you use specific activities?). In fact, the ministry provides the department with a canvas that contains the general subjects and objectives of the course content, and it is up to the teachers to develop the lectures. Various activities are devised based on adapting the syllabuses of other departments and universities, as well as documenting and having discussions with colleagues. The most frequently used activities are dictation, filling in the gaps, listening, reading, writing, pronunciation activities, and translation. However, technological tools were rarely used in ESP classes. Teachers barely use computers, data shows, or any other ICT tools. There was only one teacher who seemed to introduce modern teaching aids in her lessons, including audio-visual aids and smartphone apps. In this regard, one of the informants asserted:

"I think a lot about introducing mobile or computer-assisted tools to my class because I know they have a significant influence on listening and speaking skills, but unfortunately I cannot do it because of the large number of students in the amphitheatre. I'm quite sure not all of them will have the chance to practise properly. Also, I have a programme to finish, and one session per week is not enough to do the lesson and use such practical tools".

***** Evaluation and Assessment

As far as assessment methods were concerned (Q7: How do you assess your students' performance?), informants reported that they tended to use formative assessment, usually two tests throughout the semester, as well as summative assessment, which is the final exam of the semester. Furthermore, tests and exams' topics were related to the specific purpose of language content and took the form of paper and pencil. Practically, traditional evaluation methods, including direct questions, fill-in-the-blank activities, multiple choice tests, and true or false statements, are typically used by teachers who are in charge of the first and second-year (L1 and L2). For third-year and master's students (L3, M1 and M2), evaluations were centred on writing paragraphs or essays as well as oral presentations.

Concerning teacher evaluation (Q8: Do you evaluate your own teaching?), it was revealed that teachers are not used to conducting procedures like self-evaluation or peer-evaluation. Two teachers said that they do evaluate their performance by reflecting on their own teaching using checklists or by comparing what they find in the literature with their performance in the classroom. What is surprising is that three out of six informants did not even have an idea about self-reflection or self-evaluation.

The third question of this rubric meant to find out whether there was any sort of quality assurance system in the Chemistry Department (Q9: Is there any teacher evaluation system in this department?). However, nothing was approved.

SEP Teaching and its Challenges

Concerning their experiences as ESP teachers (Q10: How would you describe your experience as an ESP teacher?), there was a consensus on the fact that teaching in an ESP context was difficult and challenging at the beginning of the experience due to the limited specific-subject knowledge they had, the lack of training and experience, and other impediments related to pedagogy. Yet, most of them affirmed that things were gradually getting better with time. Seeing that teaching is an on-going process, ESP instructors claimed that they need to advocate constant development and learning about the target situation in order to find solutions to the problems they may face during their teaching journey because "the more teachers are inculcated in the teaching profession, the more they acquire knowledge about teaching," as proclaimed by one of the informants.

In the same fashion, another participant mentioned:

"I have done some mistakes, but I have learned a lot of things and know that ESP is a delicate teaching context and a challenge one should undertake."

The next question (Q11: What challenges have you encountered in teaching ESP in this department, and how do you cope with these challenges?) served to uncover the challenges faced by ESP teachers in the Department of Chemistry. In this respect, various challenges were reported. They are listed in the following:

- Teachers agreed on the fact that a large part of the difficulties and impediments they encountered while teaching ESP stemmed from a lack of training. One of the informants claimed: "We, as ESP teachers, are still lacking adequate methods to teach ESP effectively because of a lack of training".
- The insufficiency of teaching materials and the lack of necessary information for developing the lessons. "We found ourselves in front of ESP, which is a wide and sensitive domain, with nothing in our hands". That is what was reported by a teacher.

- The low level of motivation among students and the difficulty in raising their interest in learning English. Given that only a small number of students are interested in learning English and the vast majority do not attend the classes, or they attend only to mark their presence.
- The difficulty of designing syllabuses as it is time-consuming and labourintensive. Teachers find it tough to design different syllabuses for students of different levels, diverse types of learners, and heterogeneous abilities.
- Teaching in large classes and coping with overcrowded classes, particularly in L1, L2 and L3 classrooms. It is difficult for teachers to perform well when many groups are put all together in an amphitheatre.
- The difficulty to devise appropriate assessment tasks and assignments to
 evaluate students, considering that students are not homogeneous and that
 there is a discrepancy in terms of their abilities and backgrounds.
- Coping with students of different needs in one classroom.

! Quality in ESP Teaching

To check teachers' perceptions about their teaching quality, they were asked whether they feel that they are improving (Q12: Do you feel like your abilities as an ESP teacher are continually improving?). Two teachers had reservations and refused to answer this question, others claimed that they do not want to judge their own performance, and the rest responded positively. For instance, one pointed out:

"Yes, indeed. This is evident as the more you are in a particular situation, the more you are subject in one way or another to be better and improve your teaching experience."

The next question aimed to examine the extent to which teachers are satisfied with the teaching conditions in the Department of Chemistry (Q13:Are you satisfied with the teaching conditions in this department?). What was noticed from the analyses of the answers was that teachers were satisfied with the organisation and

the staff to a certain extent, arguing that they found help and support and that most problems could be solved smoothly. Nevertheless, other areas are still deficient and need reconsideration, such as the introduction of computers and technological aids.

Suggestions for Enhancing of ESP Teaching Quality

At the end of the interview, informants were given the opportunity to make suggestions for improving the quality of teaching in the Chemistry Department. They are listed below.

- Reconsidering the critical role of teacher education and training programmes.
- Conducting a needs analysis is fundamental for successful ESP teaching.
- Providing professional staff specialised in conducting needs analyses, establishing ESP syllabuses and activities for each department, and enhancing collaboration with ESP teachers in order to elaborate and produce appropriate content.
- Combining efforts among technology experts to consolidate with teachers
 to design relevant and attractive platforms for learners so that they can learn
 through their personal devices to be called "digital natives", as one of their
 expectations is to practise e-learning.
- Raising awareness about the significance of English among students of different disciplines so as to enhance their motivation towards English learning.
- Developing ESP-focused centres where experts, curriculum developers, syllabus designers, and instructors exchange knowledge, experience and share the difficulties and impediments they face during their teaching performance so as to find viable solutions and enhance the quality of ESP teaching in general.

3.3.3. Classroom Observation

As mentioned in the previous chapter, classroom observations were carried out at the beginning of the course with teachers taking charge of ESP classes at the Chemistry Department. The researcher perceived that observations at that stage might provide preliminary data that would enable her to portray a comprehensive image of the existing teaching practices. Hence, various aspects could be deduced regarding teachers' and learners' performance and how they interact with each other. Furthermore, she intended to familiarise herself with the target situation and unveil the strengths and shortcomings of the teaching and learning process. Considering that this protocol was the first data collection procedure in this research work, all the remarks and information collected provided the researcher with deep insights and were useful in developing the rest of the research instruments as well as the data collection procedure as a whole.

During the period of November-December of the academic year 2019-2020, the researcher carried out observations with six ESP teachers, each session lasted for one and a half hours. She decided to be a completely non-participant observer with the aim of not causing any disturbance or discomfort to the observed teacher or learners as well. Moreover, she had the chance to attend observational sessions with students of different levels and specialisations since the sample she dealt with included all of the teachers responsible of the English course in the department.

Information was collected by means of note-taking about the important events in the classroom, relying on a guide that contained general elements to orient the observation process. The researcher aimed to explore aspects related to the content of lectures, teachers' practices, and learners' behaviour in the classroom. The themes that governed the process of observations were related to ESP teacher and learner, classroom environment, the management of activities, the interaction between teacher and students, and pedagogy. According to various researchers, these themes are deemed to be valid indicators of the quality of any teaching situation.

3.3.3.1. The Content of ESP Lessons Structure

The overall structure of the English classes in the target situation consisted of similar tasks among teachers in general. Teachers in this Department have the freedom to structure the content of lessons. In the current situation, the responsible teacher of ESP at the department organises meetings with teachers at the beginning of each year and make a consensus about the components of the lessons and the types of activities that should be implemented during the course. The table below illustrates the basic structure of lessons.

Lesson Component	Observations
Free discussion (10-15 minutes)	A discussion between the teacher and students about what had been tackled in the previous session and mentioning the main points before moving to the new lesson.
Exercise(10-15 minutes)	Teachers often started the lesson with an exercise (they either write it on the table or hand it to the students on paper). The types of activities were: translation of texts from English to French; reading comprehension; filling in the gaps. Texts were, most of the time, excerpted from authentic texts related to what students learn from the main modules (matters about chemistry).
Correction and grammar (20-30 minutes)	As they corrected the activity, students had discussions with the teacher's guidance. The main concepts were explained, and the teacher introduced spotlights on grammar or vocabulary remarks.
Practice of Pronunciation (15-20 minutes)	Students read the text aloud by turn while the teacher and the other students make corrections to pronunciation mistakes.
Open discussion and Homework	At the end of the class, students were given opportunities to ask questions and receive further explanations if needed.
	Some teachers gave students homework to prepare for the next session, others did not.
T 11 20 T	ggor Churchan in ECD Classes at Chamistan Department

Table 3.8: Lesson Structure in ESP Classes at Chemistry Department

As shown in table 3.8, teachers in the Chemistry Department depended largely on practical texts that were related to chemistry-related topics, such as kinds of matters, energy and its common Forms, molecular simulation, physical and chemical properties and others. They typically used these texts as a reference point for addressing certain aspects of English terminology, grammar, vocabulary and pronunciation. Most teachers started the lesson with a reading comprehension activity, in which they disseminate the text to students, give them some time to read it, and then answer questions of comprehension collectively to check their understanding in addition to creating opportunities for further discussions.

Afterwards, they move on to translating that text or excerpts from English to French, since it is the language of instruction in the department. In other cases, students were given passages with gaps, and they had to guess the appropriate scientific concepts that would fit into the gaps, or do some puzzles related to matters covered in previous sessions. These activities were accompanied by occasional explanations of grammar when the teacher felt the need to or when students asked questions about them.

In practical terms, the major emphasis of the lesson structure was directed towards chemical concepts and terminologies. Apparently, teachers were more inclined to devote ESP classes to helping learners gain knowledge about terminology and expand their repertoire of subject-specific vocabulary and life-like contexts.

3.3.3.2. Analysis of Classroom Observation Results

***** Teachers' Practices

The observations revealed considerable feedback about ESP teachers' skills and practices. In fact, the majority of the observed teachers were punctual, well prepared for their classes and, approachable to students. They tended to come to class earlier than students, prepare all the requirements of the lesson before it started, and show willingness to be close to students by initiating conversations with

them at different occasions. As for the teaching approach, it was totally teachercentred, as teachers were the main actors in the classroom. They were the only providers of knowledge, while students were receiving information passively.

As a consequence of that, teachers seemed to face a big challenge in engaging students to talk. In each class, only a few students (2-3) were active and participated in classroom discussions by responding to the teacher's questions and debating with one another. On the other hand, many students were completely silent during class and spent time just listening and writing, despite the incessant impulse of teachers. There was also another category of learners who did not care or show any interest in the lesson and were all the time chatting with their friends or scrolling on the screens of their mobiles.

Furthermore, it appeared that teachers face another constraint in terms of their knowledge of specific field subject. Some times, they made mistakes during the explanation or when discussing matters with students due to their limited knowledge about some details related to the topic of the lesson. In such situations, even though teachers noted that they are language instructors and not specialised in chemistry, some students attempted to correct the information, yet others were provoked and started complaining and making comments about the teacher expressing dissatisfaction and saying disrespectful expressions like "she always makes mistakes" or "another mistake again... she does not know anything about this". This was an uncomfortable situation for teachers and students alike.

Concerning the relationship between teachers and students, the researcher observed that 3 out of 6 teachers were more approachable and friendly. These teachers seemed to have a good connection inside and outside the classroom. As a result, students demonstrated a much higher proclivity to participate in classroom discussions as well as a sense of comfort and release. However, these discussions were sometimes in English and related to the topic of study, and other times in French or Arabic and had nothing to do with the focus of learning.

Classroom Management

The classroom environment was moderate in general. Teachers were constantly trying to create learning opportunities to make learners practise the language. However, learners were not interacting in response. Moreover, tasks and activities depended heavily on individual work. There was a complete absence of collaborative learning among students in the classroom, and this was due to the nature of the tasks provided by the teachers. They gave them instructions for the activity and asked them to work individually and avoid any talk between classmates, claiming that this would encourage each student to build his own knowledge.

From another perspective, the majority of teachers had the ability to control their classrooms. This encompasses how each one of them reacted towards noisy students who misbehaved inside the classroom. Four out of six teachers used to make firm remarks and warnings and did not let this category of learners disturb them during the session. On the other hand, two teachers were not successful in controlling the situation; they did not care and continued in a chaotic environment without any reaction.

Another point that should be given attention is the fact that students in this department lack the motivation to study English. This was evident from the high rate of in-class absences, and even among those who attended the classes, only a few of them showed interest in learning. Most of the time, teachers worked with groups that consisted of 8-10 students in classrooms; in amphitheatres, the total number of students did not exceed 38.

***** Teacher and Learners Talking Time

It appears that the teacher was the focal point in the classroom since he had the lion's share of talking time in the classroom. The dominant speaker during English classes was the teacher. He was giving instructions about the activities, providing explanations of the lesson content, and asking questions for the purpose of creating discussions between individuals or the entire class. Yet, he received minimal interaction. Accordingly, teachers' talking time surpassed students' talking time in a remarkable manner.

One of the main objectives of ESP teachers is to help learners communicate effectively. On account of this, teachers seemed willing to offer students opportunities to talk and express their ideas. They also used prompts and encouraged them to participate in the different activities or raise any inquiries. However, there was little interaction between teacher and students; the classes were dominated by only two or three students who were participating and interacting with their teachers. Furthermore, the researcher observed that even those students who were participating in the classroom used to shift a lot to French or Arabic when they had something to say and could not express it in English.

***** Teaching Materials

As mentioned above, the materials used in ESP classes included texts that were excerpted from scientific articles, books or websites related to the field of study. Fortunately, ESP teachers were aware of the importance of these kinds of authentic texts, which are likely to play a significant role in illustrating the language in a real-life context for students. In accordance with that, there was an absolute absence of technology and information and communication tools (ICT). Despite the fact that the Chemistry department is equipped with computers and laboratories, teachers did not opt to integrate audio or video aids into English classes.

***** Language of Instruction

In general, the dominant language of instruction in ESP classes was English. In some cases, French and Arabic were also used. In effect, teachers were speaking English during the whole class; however, in some situations, they found themselves obliged to shift to French when they noticed that students were puzzled or felt that the instructions were not understood. As for teachers who do not master the French language, they usually opt for Arabic to clarify things for students.

As far as learners are concerned, they seemed to be struggling with the use of the language since only a minority were able to understand and communicate in English. They frequently asked teachers to simplify the language, claiming that they did not understand, despite the fact that the language spoken by teachers was comprehensible and straightforward. This signifies that their unwillingness to communicate was due to a lack of language competence.

In fact, combining languages in the classroom by using English, French and Arabic was considered beneficial for teachers and students alike. Yet, it was evident that some students took it for granted that teachers had the preparedness to allow the use of other languages rather than the target one. This was a reason that made them rely on French and Arabic instead of making efforts to speak English and improve their speaking skills.

Most importantly, the sum of information gathered from the observation illuminated various aspects that flowed in favour of the study and expanded the researcher's insights. She became familiar with the situation and became able to conceptualise how things worked in the Chemistry Department with regard to the ESP context. Besides, she benefited from the observations obtained to design the questionnaire as well as the interview questions since observation was carried out at the first stage of the data collection procedure.

3.4. Data Interpretation and Discussion of the Main Findings

The main objective of this case study is to investigate teachers' current practices in the ESP context and try to figure out whether these practices are adequate with regard to learners' expectations. In order to find answers to this question, a series of classroom observations, an interview with teachers, and a questionnaire that aimed to illustrate learners' perceptions and attitudes were carried out by the researcher. This section presents the interpretation and discussion of the results obtained in this investigation, which allows the researcher to test the validity of the hypotheses established at the onset of this research work.

The first research question attempted to explore the extent to which students' expectations about the quality of ESP teaching had been met. Considering the results, it could be stated that learners are not satisfied with the course they have at the university because their learning expectations were not met and they did not achieve the intended progress; therefore, the course provided at the department was not successful in improving their competences in English. In this regard, the findings denote that teachers' practices are the most responsible factor for the productivity of learners. The fact that teachers rely on the same teaching style and activities all along the course, focus on certain skills and neglect others, and stick to teaching approaches that do not engage students to take part in the learning process would certainly make learners feel demotivated and lose interest in studying English. Furthermore, results indicate that needs analysis is neglected by teachers in this department. Even though the concept of needs analysis exists in their talks, it is either ignored or done improperly. As a result, the existing course seems inadequate to meet learners' actual needs. Accordingly, one may assume that ESP teachers have limited knowledge about the requirements of learners and do not meet students' expectations completely. This confirms the researcher's first hypothesis.

These results are similar to the conclusions drawn by Villabos and Diaz-Ducca (2016), who conducted a study to design an ESP course addressed to chemistry students and chemists at the University of Costa Rica. He found that the main aspect required in ESP course design is needs analysis, in addition to the variation of lesson activities to promote learners' motivation. This also goes in line with Kaewpet's (2011) research in Thailand. He confirms that needs identification prior to lesson planning is crucial to delivering higher-quality instruction. Therefore, conducting a needs analysis before launching any teaching activity is necessary for ESP teachers to tailor adequate courses that cater to learners' specific needs.

The second research question intended to explore the factors that are responsible for the quality of ESP teaching. Results revealed that teachers'

competence, teacher training, professional development, needs analysis, methods of instruction, teaching materials, assessment, learners' attitude and motivation, and learners' competences are the factors that influence the quality of ESP teaching. In view of that, it is fair to state that the second hypothesis is partially validated.

The quality of ESP teaching depends heavily on teachers' qualifications and the preparation they receive. Accordingly, it is very important to hire teachers with the capacity to produce high-quality teaching, provide specialised training that ensures their command of ESP principles, and offer professional development opportunities to help them build knowledge of pedagogy and content. In the current situation, most teachers were new graduates who had little experience and had no training; this is why they encountered difficulties dealing with classroom management, lesson planning, teaching methods, and other areas, especially dealing with students' specific needs. A similar standpoint is held by Melibari (2015) and Zee & Coomen (2016), who found out that teachers' education and training should equip them with adequate skills that enable them to produce high-quality competence.

Needs analysis and teaching content are also regarded as important elements that influence ESP teaching quality. It is by no means that designing effective courses that cater to students' needs and wants depends on a correct identification of their requirements. Related to this is the impact of course content and learning materials. On their part, teachers faced difficulties in designing courses and providing appropriate materials that are congruent with students' abilities, trigger them to learn, and meet lessons' objectives. On the other hand, learners also had difficulties understanding the learning content and materials. Thus, such consequences are caused by the lack of teacher education and the inadequacy of the needs analysis procedure.

In effect, the negative attitude students had towards the ESP course was due to the out-dated teaching methods, the types of activities, and the low level of learners' English competence. Hence, innovation and creativity in classroom activities are likely to raise their interest in ESP classes. In his study, Zheng (2019) found that the teaching methods used in ESP are one of the chief reasons for the deterioration in the quality of teaching. He concluded that it is drastically possible to enhance the quality of teaching by using methods that appeal to both curricular requirements and student demands.

Motivation is another influential factor that is worth considering when talking about the quality of teaching. Results showed that most students were aware of the value of English for their studies and professional careers; however, they were demotivated towards the ESP course because they considered it ineffective, which translated into their disinterest and dissatisfaction. On the other hand, the lack of learners' motivation was a huge obstacle that hampered instructors' teaching processes. It goes without saying that working with students who lack the competence and motivation to learn is extremely demanding. Thus, teachers blame learners for not making efforts and sharing responsibility. While students consider the overloaded programme, the complex content and assignments they have in the other modules, and the lack of English competence to be the barriers that hinder them from making more efforts in English learning.

Regarding evaluation and assessment procedures, teachers seemed to stick to traditional methods rather than using motivating activities that stimulate their critical thinking and offer them opportunities to practise the language skills they developed. What seems to matter most is the unfamiliarity with formative assessment. It was found out that teachers did not give importance to providing consistent feedback about learners' performance, which is likely to decrease their interest in developing their language abilities and focus only on the grades of the final exams. Furthermore, the absence of teacher self-evaluation is one of the factors that contributed to minimising the quality of teaching.

As a result of their interdependence, each of these elements has an impact on the others, and in turn, they all have a significant influence on the quality of teaching. These results concur with a study conducted by Mamites et al. (2022), in which they found that the most influential factors in ESP teaching quality are teaching methods, motivation, professional development, teaching experience, and students' feedback. Furthermore, the effect of these elements on the quality of ESP teaching has also been acknowledged by Gao, Zhuang and Chang (2021). Their work showed that teaching content, teaching methods, teaching conditions, and teaching management are the main factors that influence the quality of teaching of the ESP course.

The third research question sought to inquire about the ways in which ESP teaching quality may be improved from teachers' and learners' perspectives. If decision-makers are to enhance the quality of ESP teaching, they should make attempts to improve the teaching and learning process in light of the demands of stakeholders. Thus, this research brings to light the main aspects that should be considered for the purpose of raising the chances of providing better teaching quality; these suggestions are set forth based on the perspectives of students and teachers in the Chemistry Department.

One of the prominent issues regarding the quality of teaching is the quality of teachers per se. Recruiting teachers with adequate skills and qualifications is of the utmost importance. Hence, decision-makers should reconceptualise the hiring conditions and standards to choose the right person for the right profession. Candidates must possess the necessary characteristics upon which they will be hired, mainly language competence, teaching skills, classroom management, and interpersonal aspects.

Another significant aspect that was highlighted in this study is the need to take teachers' background into account when hiring them. As a case in point, teachers with scientific backgrounds would have a basic knowledge of scientific

streams. This would facilitate teachers' integration into the ESP sphere. Following that, it is necessary to train the candidates once they are hired to ensure that they have adequate knowledge of content and pedagogy and are capable of dealing with the specific needs of learners

Admittedly, the role of motivation in enhancing teaching is well acknowledged in enhancing learning outcomes. Therefore, ESP instructors should constantly use innovative methods and activities, be enthusiastic and creative, and adopt strategies that raise students' motivation to learn English. By the same token, it is quite interesting to integrate technology and ICTs since the positive effect of technology on improving learners' performance cannot be underestimated. Thus, the use of technology should be reconsidered.

Giving importance to needs analysis and affording the necessary knowledge and skills to students in accordance with their needs and wants. It must be noted here that the ultimate objective of ESP learners is developing efficient language skills. That is to say, being able to read, write, speak, and understand spoken English is a priority than acquiring the scientific language.

Another significant point that should be highlighted is the time allocated to the ESP course. One hour and a half per week is definitely insufficient. Therefore, it is necessary to add more sessions to the ESP programme. In addition, large classes and considering the homogeneity of groups should also be reconsidered. In some cases, instructors find themselves teaching more than a hundred students with diverse needs and abilities. Accordingly, it is much more beneficial for both learners and teachers to work in small groups in order to achieve better results. Further suggestions that were provided by teachers were previously mentioned in this chapter.

3.5. Conclusion

This chapter presented the analysis and discussion of the main findings of the investigation, which attempted to provide an evaluation of the teaching quality in the ESP context in the Department of Chemistry. Various research instruments were utilised to collect vivid data that enables the researcher to answer the research questions and draw valid conclusions. These research tools consist of classroom observation, questionnaire with students and interview with teachers. The main areas that were emphasized encompassed teachers' performance and skills, content of ESP course, teaching environment, materials, assessment, and learners' satisfaction about the course in general. In down to earth terms, the present work attempted to provide an evaluation of the status of ESP teaching process. Results revealed that the quality of ESP teaching is deficient and requires reconsidering different aspects of the teaching process in order to offer a better teaching and learning experience.

Chapter Four: Implications and Recommendations

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4.1. Introduction

On the basis of the findings of the present study, it was revealed that the field of ESP teaching suffers from certain issues pertaining to teachers' practises and learners' attitudes, based on stakeholders' evaluations of the existing instructional situation at the Department of Chemistry. Accordingly, the present chapter is designated to set forth a number of implications and recommendations geared to teachers, and department leaders of the Chemistry Department and to the overall ESP teaching contexts at the University of Temcen. The suggested practises may be developed and implemented to remedy the deficiencies existing in the current ESP teaching situation and improve the teaching quality in the field of ESP.

It is without question that ensuring the quality of ESP teaching and learning is one of the main concerns of any HEI. To attain this end, a variety of factors should be taken into account to maximise the control of the teaching and learning process and thus enhance instructional efficiency. Quality in higher education, for instance, refers to the sum of opportunities provided to students that meet their needs and guide them to achieve the learning objectives (QAA, 2007). This indicates that quality in HEIs serves to equip students with the necessary knowledge and competencies. Therefore, achieving quality requires sound instructional practise. In ESP teaching, the major objective is to make learners able to communicate effectively in their target discourse community and prepare them as world citizens. Thus, a variety of parts of education should be reconsidered by decision-makers.

4.2. Improving the ESP Teaching Quality

There is no single universal recipe for improving the quality of teaching, not least in the ESP periphery. Nevertheless, a strong movement has aroused attention in this teaching arena due to the increasing demands of stakeholders to design, develop, and implement new ways to enhance ESP teaching. In order to fulfil the purpose in view, a variety of attempts should be made, starting with the main actors

of change, mainly department leaders, teachers, and learners. Moreover, one of the critical factors highlighted in the present study is the policy and principles of hiring ESP teachers, their preparation to engage in an ESP teaching job, and the evaluation of their performance, as elucidated in figure 4.1, in addition to taking care of the ESP teaching principles, such as needs analysis, course design, material development, and the proper ways to implement them to improve the quality of teaching. On top of that, it is very important to conduct regular assessment and evaluation procedures to check out the efficiency of the overall teaching and learning process.

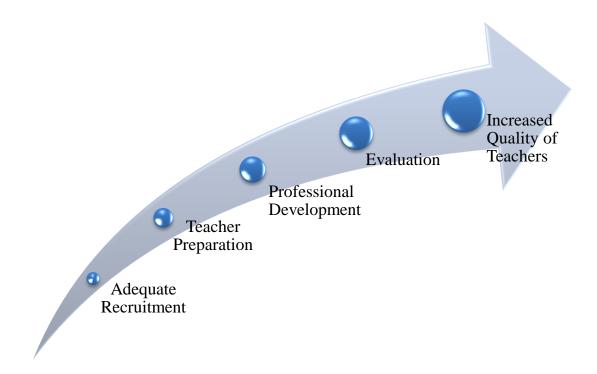


Figure 4.1: Teaching Improvement Stages

4.2.1. Employment Standards

The recent surge in interest in teacher quality has emphasised the need to raise teacher employment standards. Research has come to the conclusion that hiring highly-qualified teachers is one of the paramount incentives that drives quality in teaching (OECD, 2011). In this respect, it is strictly urged to reconsider the recruitment policy at the Chemistry Department as well as at the level of the

different departments at the University of Tlemcen. As research evidence indicates, teachers of ESP are most of the time either doctoral students or Master's holders who seek to teach with the purpose of gaining experience in teaching or because they did not find a job elsewhere; consequently, they accept to teach ESP in the different departments provisionally, even if they get paid a symbolic salary. What makes matters worse is that they receive no training throughout their entire teaching experience. Evidently, teaching results would not be satisfying.

In view of this and based on the feedback obtained from teachers' interviews, the researcher perceived an accentuated need to upgrade the hiring and recruitment standards as the first step towards raising the teaching quality. Hence, decision-makers at the department should attempt to have another think about the following:

> Improve Entry Criteria for the To-Be-Teaching ESP.

If recruitment standards are raised, the status of ESP teaching will be valued and taken seriously rather than being an 'alternate' option for English graduates, and improving the criteria for selecting ESP teachers will help in hiring the most qualified ones with adequate competence rather than selecting them randomly. In this respect, Tandon and Fukao (2015) assert that "A high-quality teaching workforce—the bedrock of all high-performing education systems—is the single most important factor in improving student learning".

→ Offer Sufficient Job Postings for ESP Teaching.

It is due to the shortage of ESP teachers that a lot of part-time teachers with limited competencies are hired to teach in this department. According to the findings of the present study, the Chemistry Department had only one permanent teacher, with a total enrolment exceeding 700 students. Taking the increasing number of students into account each year, it becomes obligatory to look for other teachers to compensate for the shortage of teachers. However, offering more postings would supply a sufficient number of teachers.

➤ Take into Account the Language Level of Teachers.

Following the previous points, it is necessary to test candidates before giving them the privilege of teaching in an ESP setting. Accordingly, language skills should be at the forefront of the requirements for employment. Many English teachers do not speak English at an operational level, which hampers the creation of an effective learning environment. Consequently, teachers need to have adequate oral expression ability so as to be able to perform effectively in ESP classes.

> Take into Account Teachers' Background in the Recruitment Process.

Another significant aspect highlighted by ESP students in the questionnaire results is the content knowledge of teachers in their field of specialisation. It is believed that taking teachers' backgrounds into account in the recruitment process would be beneficial for the development of ESP teaching. One would admit that it is not an easy task for teachers to teach matters they are not familiar with, yet it was reported by learners that some teachers made remarkable mistakes regarding the content of their field of study in the classroom. This may lead them to underestimate teachers and degrade their instructional position.

In this regard, the researcher suggests hiring English teachers with scientific backgrounds to teach in scientific streams such as Science and Technology, Biology, Engineering, Chemistry etc., while teachers with a literature background would be more appropriate to teach in specialities within the same domains. In this way, teachers will at least have a general knowledge of the field they will be teaching and could adapt to it better than those who do not possess the least information about that discipline. Eventually, it would be manageable for teachers to construct knowledge of that field of study based on the prior knowledge they already have, design lectures, select appropriate materials, and perform in a finer way in ESP classrooms.

> Train Teachers and Engage Them in Professional Development.

This study revealed an indigence of pedagogical and content knowledge among ESP teachers in this department. Apparently, this is a consequence of the lack of experience and, more importantly, the need for training. It is beyond any doubt that training is the pillar of sound teaching practise. However, what exists in ESP teaching settings nowadays appeals to reconsider the situation and think of the urgent need to afford training actions and improve teacher education programmes.

4.2.2. Improve the Quality of Teacher Education

The least that can be said, as far as teacher education is concerned, is that it is the cornerstone of effective teaching profession. Therefore, ESP teachers must be trained, supervised, and evaluated once they are offered the job. Furthermore, continuous professional development must be established to ascertain the adequacy of teachers' performance.

4.2.2.1. ESP Teacher Training

The lack of teachers' qualifications is deemed to undermine the outcomes of teaching. It is widely recognised that training aims to supply the required knowledge and skills to perform adequately in the teaching profession. In the ESP context, however, teacher education does not rely solely on knowledge of pedagogy. It rather entails equipping novice teachers with the principles and basic knowledge of specific-subject instruction.

Regarding the situation in the Chemistry Department, most teachers are neither trained nor subjected to any sort of formal teacher preparation in ESP. Teachers with GE diplomas are not appropriately prepared and have received little guidance to perform as ESP teachers. For this reason, the quality of ESP teaching and learning seemed limited. It must be mentioned that only one permanent teacher in the department was subjected to in-service training at the beginning of her

teaching experience. However, the focus of this official training is only concerned with pedagogy and the aspects of GE teaching practise.

The training of ESP teachers should include specialised content aside from pedagogical teaching methodologies. Systematic and specialised training in the target field of study would be more accurate and beneficial for equipping teachers with particular skills and content knowledge in the field in which they would be teaching. This is advocated by Strevens (1988: 43), who claims that "while every good teacher is potentially a good teacher of ESP, he or she needs special help and training. The teacher who is new to ESP needs advice, help and support from those teachers who already have the necessary experience".

Thereupon, it is recommended to include training that seeks to prepare teachers pedagogically and meets their needs. It should also devote sections to tutoring them on how to conduct a needs analysis procedure, to design and evaluate courses, to teach specific content, to devise or adapt appropriate materials, and how to assess teaching outcomes, including learners' performance as well as their own teaching practise. More importantly, engage all teachers in such actions, not only permanent ones, as the number of part-time teachers exceeds that of full-time teachers. More than that, it is logical to assert that teachers should be mentored and triggered to develop as long as they are teaching in an institution, whether they were permanent or casual teachers.

Besides, it appears that listening to teachers and students, valuing their views, and involving them in educational decisions can make an interesting change since they are the main actors in the teaching and learning process. Thus, understanding their concerns, difficulties and challenges is likely to help them make informed decisions. As a continuum to this, professional development seems to be another significant area to draw attention to.

4.2.2.2. ESP Teacher Professional Development

Professional development is at the forefront of a successful teaching career. Its value cannot be underestimated, as it opens doors to improving teaching from different angles; otherwise, teachers become stagnant in their practises. In this context, Chong and Ho (2009: 303) postulate that "demand for high-quality teachers to deliver high-quality teaching can only be met with high-quality professional development". From her perspective, Sharma (2019) claims that "quality is attained and maintained by ceaseless efforts". Hence, the continuum of the development process is the key to the persistence of the quality of teachers, which in turn is regarded as a pivotal factor in the process of quality teaching development. On that account, it is believed that teacher professional development should be regarded as a fundamental step in teacher education and that efforts should be made to engage teachers in such processes.

In the present investigation, results revealed that professional development was not valued, and most teachers were not involved in any kind of professional development or participated in any process that served to improve their teaching process. For that reason, it is necessary to raise teachers' awareness about the significance of professional development, bearing in mind the constant change in education worldwide, by creating opportunities for professional development, including:

- ➤ The organisation of academic workshops and seminars by the department leaders where a variety of teachers exchange expertise.
- ➤ Teachers collaborate with colleagues and more experienced teachers to discuss the methods and strategies that need improvement.
- ➤ Teachers need to attend virtual or in-person conferences that relate to ESP topics and take advantage of experts' knowledge as well as that of other people of the same expertise.

- ➤ Teachers should search for and do self-learning about the latest innovative methods in teaching and make attempts to implement them in their teaching.
- ➤ Reflecting on teachers' own performance and pursuing self-evaluation procedures to identify their strengths and weaknesses and improve their practical teaching experience.
- ➤ Make evaluations regarding classroom teaching, syllabus, materials, and activities.

4.2.3. Improving the Teaching Environment

The teaching environment is evidently critical and has a great influence on the quality of performance of ESP teachers and learners alike. The findings of this investigation revealed a host of issues in this regard. In an attempt to afford a safe and supportive teaching environment, the following factors should be taken into consideration:

1) Class Size:

Taking into account that teaching small groups offers students more opportunities to learn and practise the language and thus achieve better learning results. As for teachers, they are likely to perform better, have enough chances to keep track of each student's progress, and have a more comfortable space to teach. Moreover, teachers and learners would be more motivated to engage in classroom activities. In light of this, it is recommended to divide students into smaller groups containing 25 students maximum, as suggested by the research participants, instead of fusing several groups in an amphitheatre.

2) Homogeneity of Groups

If the large class size problem is solved, groups will then be controlled, and the problem of heterogeneous groups, which is one of the main issues that hampers teachers' ability to perform well in ESP classrooms, will be solved. To this end, it is feasible to conduct a placement test before dividing the groups of students, and based on the results of this test, the learners will be directed into different groups according to their levels. In this way, teachers will be dealing with students of approximate competence and needs; consequently, the teaching process will be smoother and require less effort from teachers compared to what exists in the current situation.

3) Implementation of Technology in ESP Classrooms

Due to the necessity of technology introduction in education, what is referred to as the EDTech revolution, it became requisite to equip language classrooms with adequate ICT tools to foster students' learning and language practice skills. This requires the development of language laboratories, the use of audio visual tools in classrooms, taking advantage of the internet, and using learning applications and puzzles on smartphones (see 4.6).

4) Teaching Time Load

Another critical aspect is the insufficient time load. This issue can be resolved by increasing the time allocated to teaching English in the department. In the case at hand, one hour and a half is insufficient. Therefore, including at least two sessions per week is recommended. In this way, teachers can devote one session to the lessons and the second to practical tasks related to language skills.

4.3. Quality Assurance

QA refers to the "planned and systematic review of higher education institutions to determine whether or not acceptable standards of education, scholarship, and infrastructure are being met, maintained, and enhanced" (Daguang and Zuoxu, 2017: 8). In this context, Fry et al. (2009: 190) posit that the major objective of QA in HEIs is to "foster subject, pedagogical, and staff development". In this regard, QA is perceived as vital to ascertaining the quality of teaching in HEIs. It follows that if HEIs produced graduates who are capable of functioning successfully in their professions, they would have then completed their mission successfully.

It is essential that any teaching service has a system in place to assure that both the teaching process and learning outcomes are of high quality. In the ESP context, ensuring quality is dependent on the quality of ESP course content, instructional methods, teaching materials, and assessment approaches, in addition to the quality of teachers' and learners' outcomes. Thus, among the very first important resolutions that decision-makers in ESP should think well about is the establishment of a sound QA system at the level of each department and strive to ensure its persistence and validity to improve delivery at all levels. Procedures like teaching supervision, course evaluation, teacher evaluation and self-evaluation are said to strengthen the department's instruction system and ensure that the quality of ESP teaching is maintained and continuously improved.

The process of QA should be based on clearly defined responsibilities and rigorous plans and activities among stakeholders. In this regard, Daguang and Zuoxu (2017) emphasise its contribution to the teaching and learning process, research, and the development of learners' overall competence. In this respect, they assume that QA is highly dependent on the evaluation processes related to administrators, teachers and students, as illustrated in Figure 4.2.

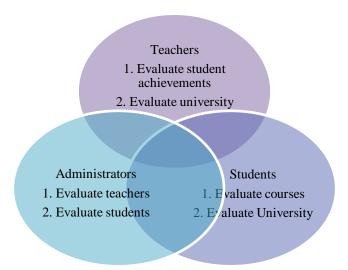


Figure 4.2: QA framework (Daguang and Zuoxu, 2017: 27)

Therefore, the first step to achieve quality enhancement depends on raising awareness about quality teaching and construct a culture that value quality-oriented objectives among stakeholders in the department. In this context, Henard, Cros and Thanh (2014: 56) propose the following methods to develop an institutional quality culture:

- Communicate about it widely and continually.
- Explicitly affirm the importance of teaching and exhibit institutional commitment.
- Advocate quality teaching and explain why a quality culture is needed.
- Disseminate information and ensure teachers know the institutional policy.
- Take every opportunity to initiate discussion at different levels.
- Support the scholarship of teaching.
- Create coalition of leaders.
- Involve all actors and listen to their point of view.
- Highlight some quick successes in making improvements.
- Engage in networks to give exposure to achievements and have an impact on the institutional image.

4.3.1. Assessment Procedures

This study uncovered that in the Department of Chemistry, the content of tests and exams was strictly related to the specific-field of study, where teachers' main focus was always on the language competence of students. Nevertheless, the assessment process relies heavily on summative assessment, while formative assessment was almost ignored. Furthermore, not all language skills were given attention, and dealing with the differences in learners' levels of proficiency was noticeably challenging to a certain extent.

In this regard, it is believed that ESP teachers must be aware of the significance of formative assessment in academic contexts. The continuous evaluation of learners' performance helps in monitoring and developing their abilities to a large extent. Therefore, it is essential to put into action formative assessment activities in ESP classrooms, provide feedback about students' learning, and assess their strength and weaknesses in an attempt to raise the efficacy of teaching.

From another perspective, the researcher suggests that at the beginning of each ESP course, students should be subjected to placement tests, based on which they will be divided into groups. In this manner, teachers will be dealing with students of approximate language abilities, reducing the challenge of heterogeneous groups of learners. The following step is to subject students in each group to diagnostics tests. The results of these tests will enable teachers to get to know their learners and determine each learner's level of proficiency. It will then be much easier to devise an appropriate course of study for each group of students.

Alongside, it is a requirement that assessment procedures in an ESP context encompass the four language skills rather than focusing solely on the writing skill, as it is the case in the majority of ESP settings. It is evident that effective language learning is dependent on effective listening, reading, speaking and writing skills;

therefore, teachers should pay attention to teaching as well as assessing all language skills properly.

4.3.2. Teacher Evaluation

The quality of education that learners receive depends on various factors; a pivotal factor among these is the quality of teachers. Therefore, concerns should be directed towards the evaluation of teachers in order to improve the quality of the teachers they employ. Considering that the present study revealed that the Department of Chemistry has no teacher evaluation system, there should be a focus on the establishment of methods to evaluate and monitor ESP teachers. Within this frame of reference, administrators should establish regular evaluation procedures for teachers' performance. It is worthy to note that teacher evaluation systems are said to improve teaching, and not to judge teachers themselves; moreover, this process aims to enhance the quality of teachers since they are the first influencers on students' learning process. This can be achieved on account of the following measurements:

- ✓ Afford specialised staff or a committee to evaluate teachers' performance regularly.
- ✓ Use students' feedback to evaluate the quality courses (questionnaires, interviews...)
- ✓ Implement self-evaluation procedures among ESP teachers.

Isoré (2009) proposes an approach for teacher evaluation in which she distinguishes the most important standards and criteria that should be taken into consideration in the evaluation process and in parallel, she sets out the methods and instruments necessary for the evaluation of teachers. Table 4.1 summarises the abovementioned.

Criteria and standards	Methods and instruments
Content knowledge on the subject taught.	Classroom observations
Pedagogical skills.	Interviews with the teacher
Knowledge of students.	Teacher-prepared portfolios (video
Ability to enhance students' performance.	clips, lesson plans, reflexion sheet,
Competence in instruction planning.	self-reported questionnaire,
Knowledge on assessing students'	samples of students' work)
learning.	Students' achievement results
Ability to create a favourable classroom	(absolute performance or value-
environment.	added gains)
Capacity to engage students in learning	Teacher tests
and to interact with them	Data from questionnaires and
Communication and monitoring skills.	surveys completed by students
Ability to meet the needs of diversified	
student populations; demonstration of	
flexibility and responsiveness.	
 Professionalism 	
Engagement in professional growth and	
development: reflexion on teaching, in-	
service training.	

Table 4.1: Evaluation of Teacher Practice and performance (Isoré 2009: 32)

A prevalent principle in the literature about teacher evaluation is that this process requires the use of multiple sources of evidence (Grissom and Youngs, 2016). On account of this, the researcher considered developing teacher performance evaluation forms that are meant for evaluating the effectiveness of ESP teachers at the Chemistry Department. In HEIs, there are three principle sources of feedback: students, colleagues or professional peers and self-generated feedback (Fry et al., 2009). For that reason, the researcher sought to suggest three evaluation tools. The proposed forms include a student evaluation survey, self-evaluation and classroom observation protocol. These forms attempt to measure the most influential aspects of ESP teaching based on several criteria, and from different

perspectives: students, teachers and administration. The content of each evaluation form is explained in the following.

4.3.2.1. Teacher Performance Evaluation Form for Students

It was mentioned in the previous sections of this research that students' feedback, or SET, is an important source of evaluation in HEI's (Zabaleta, 2007; Ferguson, 2012; Hammonds et al., 2017). In this context, Borg (2018: 28) identifies SET as:

- An important source of feedback to teachers.
- Can contribute to improving the quality of teaching.
- Allow student voices to be heard.
- Is an efficient way of collecting student feedback.

Therefore, the researcher considered to use this method in the teacher evaluation process as part of the quality assurance system since students are the most affected by the teachers' instruction process. This form can be administered to students at the end of the ESP course as a means to determine the quality of teachers. Based on the feedback collected from students' perspectives, decision-makers will be able to identify the deficiencies and make attempts to solve them.

The present evaluation form involves six criteria: teacher's knowledge (five items), teaching quality (seven items), goals and objectives (three items), teacher-learner relationship (four items), teaching material (three items), and assessment (four items). These criteria are set based on Isoré's (2009) evaluation framework; besides, they are the most commonly used aspects for teacher evaluation in HEIs worldwide (see Appendix D). Further details are provided in the next table.

Criteria	Items
	➤ The teacher presents a wide range of content
	knowledge in the specific field of study.
	➤ The teacher connects content knowledge to
	target-situation applications.
Teacher Knowledge (language and content)	➤ The teacher communicates accurate
(language and content)	knowledge in the specific field of study.
	➤ The teacher demonstrates accurate language
	skills.
	➤ The teacher uses understandable language.
	➤ The teacher is good at explaining things
	related to language in the specific field of
	study.
	➤ The teacher uses simple language that can be
	understood by students.
	➤ The teacher assigns tasks and activities that
	match the learners' levels.
Teaching Quality	➤ The teacher creates an encouraging
reaching Quanty	atmosphere for debates and discussions in the
	classroom.
	➤ The teacher makes students feel comfortable
	asking questions and getting assistance.
	Include adequate technology tools to improve
	students' learning experiences.
	➤ The teacher shows creativity in the
	development of class tasks.
	➤ The teacher set clear learning objectives at
Goals and Objectives	the beginning of the course.
Sould und Objectives	➤ The teacher is keen to help learners achieve
	the intended objectives.

	➤ The objectives of the course are adequate for
	learners' needs and wants.
	➤ The teacher treats students with respect.
	➤ The teacher is enthusiastic to teach the
	course.
Teacher-learner Relationship	➤ The teacher is helpful for students inside and
Kelationship	outside the classroom.
	➤ Teacher creates a safe atmosphere for debates
	and discussions with students.
	Teaching materials are clear and easy to
	understand.
Tooghing Motoriol	Teaching materials are interesting and
Teaching Material	relevant to the field of study.
	➤ The teacher introduces technology in the
	classroom.
	➤ The teacher gives tests and exams that reflect
	the materials covered in the lectures.
	➤ The teacher uses different methods of
A ag a gg ree a re 4	assessment and evaluation.
Assessment	➤ The teacher provides timely feedback about
	learners' performance.
	➤ The teacher is fair and set defined and clear
	grading criteria.

Table 4.2: Teacher Evaluation Form for Students

4.3.2.2. Observation Form for Teacher Evaluation

A commonly used method of assessing teacher quality is classroom observation protocols. It is widely recognised that observation presents valid and consistent evidence in any teaching-performance context. That is why it is used in most teacher evaluation procedures.

What comes next elucidates the observation form proposed in this research, which is adapted from Danielson's (2007) framework for professional practice. It consists of six standards: professionalism, knowledge of language and content, teaching methods, pedagogical skills, and classroom environment. Each standard breaks down into elements to be described as excellent, above average, average, minimal, and poor (see Appendix E). Staff accredited for the evaluation may undergo regular classroom observations with ESP teachers in an attempt to examine the situation from a different perspective than that of students' surveys.

Standard	Elements
	➤ The teacher is well prepared.
	> The teacher plans the lessons in a manner conducive
	to easy understanding by students.
Planning and	➤ The teacher keeps the lessons sequenced and related.
Preparation	> The teacher uses activities, materials and sources
i reparation	appropriate to the learners' needs.
	> The teacher uses materials relevant to the lessons.
	> The teacher demonstrates flexibility in the lesson
	structure.
	> The teacher is punctual.
	➤ The teacher shows commitment to teaching.
	➤ The teacher uses the entire time allotted to the class.
Professionalism	➤ The teacher takes part in professional activities.
	➤ The teacher contributes to the professional
	knowledge and expertise of ESP teaching and
	learning.
Knowledge of	> The teacher speaks English fluently and accurately.
Language and	➤ The teacher writes effectively.
Content	➤ The teacher communicates in coherent and
Content	understandable language.

	➤ The teacher presents the content knowledge clearly.
	The teacher is knowledgeable about the subject
	matter.
	➤ The teacher motivates students to be willing to
	participate in the class discussions.
	➤ The teacher use activities that stimulate the critical
	thinking of students (questioning, problem solving,
	reflection).
Too shing Mathada	➤ The teacher employs a variety of instructional
Teaching Methods	strategies to accommodate the different learning
	styles in the class.
	➤ The teacher promotes competitiveness among
	students.
	➤ The teacher maintains group work and cooperation
	between students.
1	
	➤ The teacher uses teaching techniques that stimulate
	The teacher uses teaching techniques that stimulate students' spirit of inquiry.
	students' spirit of inquiry.
	students' spirit of inquiry. The teacher uses a variety of methods that
Pedagogical Skills	students' spirit of inquiry.The teacher uses a variety of methods that correspond to the specific field of study and the
Pedagogical Skills	 students' spirit of inquiry. The teacher uses a variety of methods that correspond to the specific field of study and the learners' needs.
Pedagogical Skills	 students' spirit of inquiry. The teacher uses a variety of methods that correspond to the specific field of study and the learners' needs. The teacher's voice is clear and loud enough to
Pedagogical Skills	 students' spirit of inquiry. The teacher uses a variety of methods that correspond to the specific field of study and the learners' needs. The teacher's voice is clear and loud enough to attract students' attention.
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Pedagogical Skills	 students' spirit of inquiry. The teacher uses a variety of methods that correspond to the specific field of study and the learners' needs. The teacher's voice is clear and loud enough to attract students' attention. The teacher collaborates with colleagues to upgrade his performance.
Pedagogical Skills	 students' spirit of inquiry. The teacher uses a variety of methods that correspond to the specific field of study and the learners' needs. The teacher's voice is clear and loud enough to attract students' attention. The teacher collaborates with colleagues to upgrade his performance. The teacher understands students' weaknesses and
Pedagogical Skills Classroom	 students' spirit of inquiry. The teacher uses a variety of methods that correspond to the specific field of study and the learners' needs. The teacher's voice is clear and loud enough to attract students' attention. The teacher collaborates with colleagues to upgrade his performance. The teacher understands students' weaknesses and helps them overcome the difficulties.
	 students' spirit of inquiry. The teacher uses a variety of methods that correspond to the specific field of study and the learners' needs. The teacher's voice is clear and loud enough to attract students' attention. The teacher collaborates with colleagues to upgrade his performance. The teacher understands students' weaknesses and helps them overcome the difficulties. The teacher creates a comfortable atmosphere in the
Classroom	 students' spirit of inquiry. The teacher uses a variety of methods that correspond to the specific field of study and the learners' needs. The teacher's voice is clear and loud enough to attract students' attention. The teacher collaborates with colleagues to upgrade his performance. The teacher understands students' weaknesses and helps them overcome the difficulties. The teacher creates a comfortable atmosphere in the classroom.

them quiet during the class.

➤ The teacher uses strategies to keep students focused in the classroom.

Table 4.3: Teacher Observation Form

4.3.2.3. Teacher Self- Evaluation

Self-evaluation is one of the methods used in professional development. It also plays a significant role in evaluating the efficiency of teaching. In fact, teachers may self-assess their own teaching competence using a variety of tools, such as portfolios, reflective sheets, peer evaluations, and audio and video recordings. In this regard, the researcher suggests a self-evaluation form for ESP teachers, in which they answer a set of questions to reflect on their teaching performance at the end of the course. Thus, teachers should reflect on their teaching practices, and have the willingness to rectify any inadequacies in order to fulfil the teaching potentials. The suggested form (Appendix F) contains guiding questions adapted from the Teaching Quality Framework Initiative (2018), as illustrated hereinafter.

1) Teaching procedure:

- How did my ESP course go? Am I satisfied with my teaching?
- Which aspects of the course or process of teaching were successful or unsuccessful?
- What aspects were most interesting in this teaching experience? What was most frustrating?
- How can I judge my mastery of the course content in this discipline (Chemistry)?
- Were my teaching methods congruent with the requirements of ESP teaching principles?

2) Course Goals

- How have I designed ESP course goals and learning objectives, and on what basis were these selected?
- Did I relate course objectives and content to ESP students' perceived needs and wants?
- How well did I achieve these goals and objectives?

3) Preparation and Teaching Materials

- Was my lesson plan progressive and motivating, and did it meet the needs and abilities of my students?
- Were the provided materials adequate for the learners' field of study and their ability to comprehend?
- Did I introduce technological aids in my teaching?

4) Relationship with students

- Do I maintain a friendly and respectful relationship with my students?
- Was I successful in triggering students' involvement and participation in the classroom?
- Did I encourage students to ask for assistance without hesitation?
- Was I enthusiastic and approachable to students in the classroom?

5) Assessment

- Can I ensure that the assessment methods I use are adequate to assess the intended learning outcomes in relation to ESP standards?
- Did I use formative assessment effectively to keep students informed about their progress throughout the course?
- Was my feedback about students effective in helping them improve their competence?
- Did I use innovative methods in examinations, assignments and activities rather than relying on traditional assessment methods?

6) Efforts to Increase Teaching Effectiveness

- What actions have I taken to improve my skills and expertise as an ESP teacher?
- Did I attend any teaching development actions (seminars, workshops, professional development initiatives)?
- In what ways do I evaluate or reflect on my teaching practice? Did this help me to develop my teaching skills?

7) Results of Instructional Efforts

- Did my students achieve improvement in their language skills after this course?
- Were the ESP course objectives accomplished properly?
- Was I successful in raising learners' interest and motivation towards English learning?
- Did students construct a good amount of technical knowledge (vocabulary and terminology) related to their field of study?

4.3.3. ESP Course Evaluation

The evaluation of an ESP course is about identifying the extent to which the course is running smoothly and how well course units are interrelated in harmony (Fry et al., 2009). This procedure is likely to enlighten decision-makers and module coordinators about the effectiveness of the course provided to the students and make sure that the course is adequate and up-to-date. In the available research of ESP, the most investigated areas are generally related to needs analysis, course design, teaching methodology and learner assessment (Strevens, 1988; Basturkmen, 2010; Brown, 2016). Yet, course evaluation is not given its real value, even though it is as significant as the other ESP principles. Course evaluation involves components like curriculum, teaching goals and objectives, materials, teaching methods, students' achievements, and so on.

Evidently, ESP course evaluation will raise awareness about the different aspects of teaching, help to adjust the ESP curriculum, and determine the extent to which students' outcomes are congruent with their needs and wants. Based on this, teachers will identify what to keep and what to stop or change in ESP classes and help them improve the quality of their instruction. For this reason, the researcher believes that deeper insights should be brought to the ESP course evaluation procedure in the Department of Chemistry.

Primarily, it is important to raise awareness about course evaluation among stakeholders in the department. They should be aware of its role in raising the quality of learning outcomes, and have the preparedness to carry out a successful course evaluation process. Moreover, teacher training should contain a section devoted to train teachers how to conduct course evaluations and take advantage of their results to improve their teaching practise. It is worthy to note that the course evaluation process must be supervised by professionals so as to ascertain its efficiency and sustain regular evaluations of ESP courses.

Several methods can be used to undergo a course evaluation, mainly valueadded tests, diaries, interviews, observations and students' evaluations. Staff who are concerned with this process can use universal evaluation forms or develop tools on their own according to the criteria they intend to measure and the needs and objectives of the course. To sum this up, Hounsel (2009) set out the following figure that summarises the sources of feedback that can be used to evaluate courses.

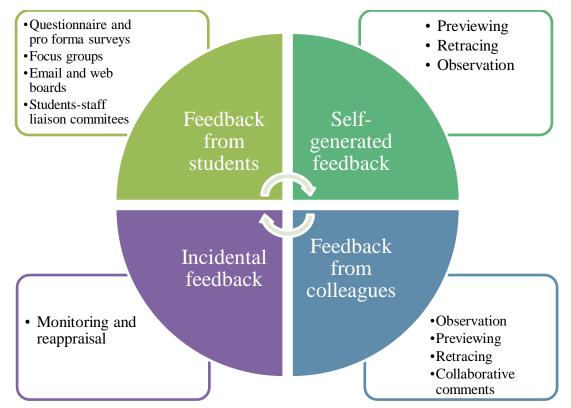


Figure 4.3: Sources and Methods of Feedback for Course Evaluation (Hounsel, 2009: 202).

4.3.4. Evaluation of Teaching Materials

The development of ESP teaching material has always been a daunting task for ESP teachers. Dudley Evan and St. John (1998) emphasised that the materials used in an ESP class have a crucial role in demonstrating the real language of the discipline to students. Hence, the design of materials for ESP classes depends on "learning needs, language content and subject-matter content" (Bocanegra-Valley, 2010). Yet, material evaluation has become a requisite step in raising the quality of instruction in ESP. Focusing merely on methods of material production and adaptation will only tinker around the edges if they are not evaluated. Once adapted or developed, materials should be reviewed in order to ensure their appropriateness, and based on evaluation results, teachers should adjust them to fit their purposes. Bocanegra-Valley (2010) provides a resume of the process of material development and evaluation in ESP, as elucidated in the next figure:

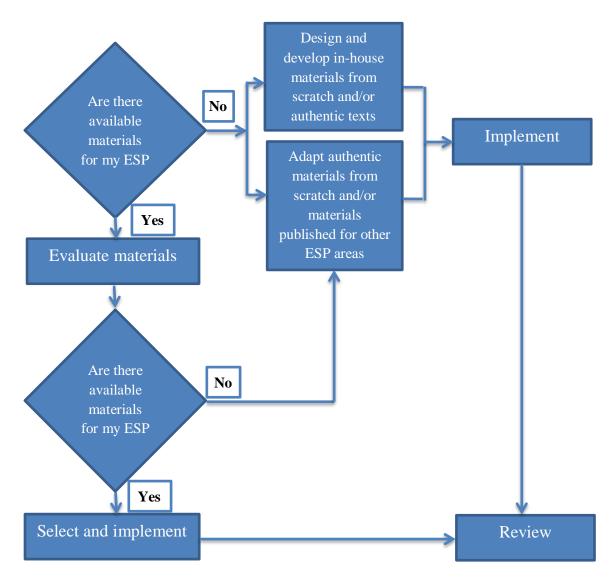


Figure 4.4: The Process of ESP Material Development and Evaluation (Bocanegra-Valley, 2010: 145)

In this write-up, the researcher recommends steering focus towards evaluating ESP teaching materials. Besides, the researcher thinks that providing practical sessions to guide teachers on how to develop adequate teaching materials and how to evaluate them is likely to lead to fruitful results. Alongside this, it should be noted that material developers, who are mostly ESP teachers, should bear in mind the significance of authenticity. In this regard, one can assume that authentic materials can be of great support and inspiration in developing materials because this type of material implies the incorporation of text "normally used in the

students' subject specialist area: written by specialists for specialists" (Jordan, 1997: 113).

Authentic materials are likely to contain a great deal of language structure and lexicon in the specific field of study. This can help students understand how native speakers use English in real-life situations. By doing so, they will be exposed to the language they need and discover different dialects and cultural perspectives, which will certainly have a positive effect on their language learning process.

4.4. Fostering ESP Learning through Personalised Learning Approach

Through time, considerable changes were made in the ESP periphery, aiming to ameliorate the teaching situation. Thereby, it became widely recognised that ESP teaching should depend on a learner-centred approach, which is an approach that involves learners in the learning process to a large extent and makes learning more accessible for them. In this way, students would deal with each other and with the learning materials, while the teacher plays the role of a mentor and facilitator of learning.

Seemingly, the *Personalised Learning Approach* is a way that is conducive to enhancing the ESP teaching quality. By adopting such an approach, the teacher designs learning experiences that suit the students' specific needs, backgrounds, learning styles, and interests. It also involves giving learners the opportunity to decide what they want to learn, how they want to learn it, and at what pace. A wide range of tactics might be considered in Personalised learning as elucidated in figure 4.5. *Self-Directed Learning* (henceforth, SDL) is one of these methods that is believed to support students' learning processes. By applying SDL, students have the freedom to decide the objectives of the course, determine their own needs, and choose the best learning method that suits them. Consequently, they become autonomous learners and stay motivated and engaged since they control their learning and work towards personal goals.

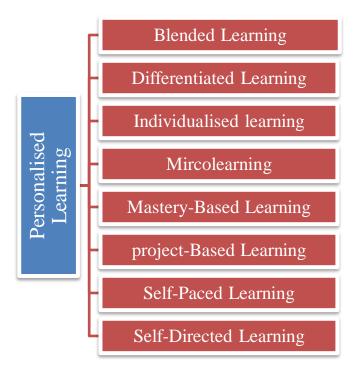


Figure 4.5: Methods of Personalised Learning Process

In the SDL approach, students must first fully recognise their weaknesses and define a number of aspects that need to be developed during the semester. The selected aspects should be pertinent to their academic as well as professional needs. Next, students decide about the objectives they seek to achieve in the course and determine SMART (Specific, Measurable, Achievable, Relevant, Timely) goals, and then choose the type of tasks that facilitate their learning and help them develop their language skills (Holzweber, 2016).

After setting all the above-mentioned steps and working regularly on them, the students need to reflect on their learning experience as a final step of the SDL process. Reflection and self-assessment help them identify their progress and define the tasks that worked best for them. Furthermore, it enables them to better understand their learning style and foster self-awareness. Holzweber (2016: 4) lists the advantages of SDL as follows:

- ❖ Learners find out for themselves what tasks they enjoy and what tasks support their learning process.
- ❖ Learners can work on an aspect of language that seems relevant to them.
- **!** Learners can work at their own pace.
- Learners can manage their time individually and can work at any time of the day or night.
- Learners have individual supervision and feedback.
- Learners are guided through the process.
- ❖ Learners are more motivated because they see the relevance in what they are doing.
- **!** Learners get the sense of responsibility.
- ❖ Teachers can concentrate more on individual students.
- ❖ Teachers can follow individual progress more easily.
- ❖ Teachers can give individual feedback more easily.
- * Teachers have closer contact to students.

4.5. Preparing ESP Students for the Demands of Workplace

As it was mentioned in the preceding chapter of this research work, teaching ESP in the Chemistry Department focuses chiefly on the terminology and technical terms of the field-specific language. Nevertheless, students' seemed most interested in improving their language skills, and their major objective is the ability to use the language effectively in real life-situations. More precisely, speaking and writing skill development was a higher priority for them. For this reason, it is suggested to devise activities that involve learners in practicing the language skills they need to elaborate on in accordance with field-specific content knowledge (specialised vocabulary). Therefore, it could be stated that the ultimate goal of ESP teaching is to teach the language skills through content and not vice versa.

What comes after developing adequate language skills is the ability to use appropriate language and communicate effectively in real-life professional

situations. This requires a sufficient technical repertoire and a considerable amount of vocabulary. Accordingly, it is recommended that the teacher design tasks and activities that replicate the contexts in which the students will use their English language skills. This may include:

> Reading and listening to authentic materials

Reading is one of the most relevant tasks that ESP learners prefer to do. Evidently, reading authentic materials, such as articles, books, journals, is deemed to present fundamental input and scaffolding for learners. Likewise, listening to authentic materials through the use of audiobooks, videos and podcasts seems to increase their adaptability to real-life professional situations.

➤ Playing games that enhance learners' language skills.

It must be brought to teachers' attention that learning with fun has proven to produce higher learning results. That being so, integrating enthusiastic games into their teaching is believed to play a pivotal role in raising students' motivation and interest and developing improved language skills.

> Perform role-plays.

Similarly to playing games, role-plays serve to make learners experience how real-life situations in their professions are. Teachers may give them the opportunity to perform personalities related to their specialisation, for instance chemists in a laboratory, and make scenarios on that basis. Students in such activities will be more motivated to practise English when it is about their contextual environment.

> Perform chemical experiments in laboratories

Students of chemistry are scientific learners, which implies that they are more inclined to learn by experiment. As a result, and taking into account their preferences, it could be stated that engaging them in activities that suit their tendencies would certainly lead to positive learning outcomes. That is why the research suggests scheduling sessions in laboratories to perform chemical experiments that learners have already studied, where the medium of communication will be English only. In this way, students become more comfortable with the learning environment and are likely to better grasp chemistry-related vocabulary. Further, they will be familiar with situations related to their future workplace.

4.5.1. Collaboration between Language Teachers and Subject-Specialists

An essential way to improve ESP instruction can be achieved by collaborating with English language teachers and subject-specialist teachers. In fact, language teachers may have the requirements to teach general English, yet they lack adequate knowledge of specific-subject matters. On the other hand, subject-specialists have efficient content knowledge but limited competence to teach English. Hence, an effective ESP teacher requires a combination of competence in subject knowledge and language teaching skills.

In this regard, it seems logical to make attempts to have collaborative work among language teachers and subject specialists in the process of producing ESP programmes at all levels for the purpose of covering the specified needs of students. This encompasses syllabus and course design, material development, and their evaluation.

4.6. Internet and Technology Integration in ESP Teaching

The positive effect of the incorporation of technology and ICT aids in the educational sector cannot be underestimated. Technology and the internet have evolved and become prevalent in everyday life, particularly in the professional world, as is the case for language learning and teaching. "This places a challenge on teachers who need to prepare their ESP students to deal with global communicative practises online, in all their complexity" (White, 2007: 325). Based

on the results of the current research, it was discovered that there is a strong demand to inculcate technology in the ESP learning periphery by learners. Students belong to the digital generation, where all of them are used to relying on technology in everyday life in general and in their academic and professional careers in particular. Moreover, integrating information and communication technologies in ESP can be highly effective in enhancing language learning as well as improving student engagement and motivation (teachers can bring real-life situations into the classroom, expose students the different language structures, and provide them chances to practice the language in a pleasant way.

There exist various technologies that can be used in ESP teaching, the following is a set of such activities suggested by Kern (2013):

- > The use of audio dictionaries.
- Learning through Slideshow-supplemented, images and videos (slideshare, youtube...).
- > The implementation of audio and video podcasts.
- > The use of international channels videos.
- ➤ The use of virtual conferences or inviting native speakers by the use of video conferencing tools.
- ➤ The use of educational platforms like MOODLE.
- ➤ Online games.

4.7. ESP Course Programme

To conclude this space that devoted to the implications that intent to improve quality in ESP teaching, the researcher summarises the elements stated above in the following ESP course programme. It aims at improving the instructional situation of ESP in the Department of Chemistry. The course programme consists of three phases: at the onset of the teaching experience, along the course and at the end of the course.

1. Before the course

In order to fulfil efficiency in learning outcomes, it is fundamental to offer effective teaching. Accordingly, in this phase, administrators should take into account the following aspects:

- ❖ The adequate hiring of ESP teachers: As mentioned previously, the very first step towards improving the quality of ESP teaching can be reached by offering effective teachers.
- ❖ The provision of pre-service training: training and the initial preparation of teachers plays a significant role in developing teachers' practice, increasing their knowledge, and trimming their competences.
- ❖ Placement test for students: placement tests are useful to determine learners' level of language abilities, based on which they will be divided into groups of similar levels so as to have homogeneous groups and facilitate the teaching process.
- ❖ *Diagnostic Tests for Students:* this kind of tests is beneficial to identify the language skills of each student and their needs. Based on the obtained results, teachers develop courses and teaching materials and activities.

2. During the course

The second phase entails the areas related to the main steps in the process of teaching. It consists of the fundamental aspects of ESP teaching in addition to a set of remedial actions, which are proposed by the researchers in the above in this chapter.

❖ *In-service training:* teachers engage in the teaching process, simultaneously, have training sessions for monitoring their practice, identify their weaknesses, and provide them with solutions to cope with the difficulties and challenges they face along their teaching journey.

- ❖ *Needs analysis:* before starting teaching an ESP course, teachers should carry out a needs analysis procedure to identify the actual needs of students. Based on this, the course will be designed.
- ❖ Setting the objectives: after needs analysis, teachers define the goals of the course as well as the learning objectives that students should achieve at the end of the course.
- ❖ Course design: the course design should take into consideration the students' needs, course objectives, time load, appropriate materials, motivational topics ...
- * Resources and materials: teachers develop materials for the lessons with accordance to the needs of students, course objectives and topic of lessons, taking into account language structures and specific content knowledge.
- ❖ *Teaching:* teaching relying on a variety of methods and strategies that help to equip learners with the ability to construct effective language skills in relation to specific-content knowledge.
- **❖ Teaching quality control:** Staffs undertake classroom observations of teaching practice to evaluate the quality of instructors' performance and monitor them.
- * Professional development: teachers contribute in professional development tasks in the field of ESP language teaching and learning.
- * Assessment of students: this involves appropriate formative and summative assessment of students.

3. After the course

In this stage, attempts are made to provide a holistic evaluation of the teaching situation for the purpose of remedy any defects to improving the quality of teaching.

❖ Feedback: evaluation of the course using students' feedback, self-evaluation, peer evaluation.

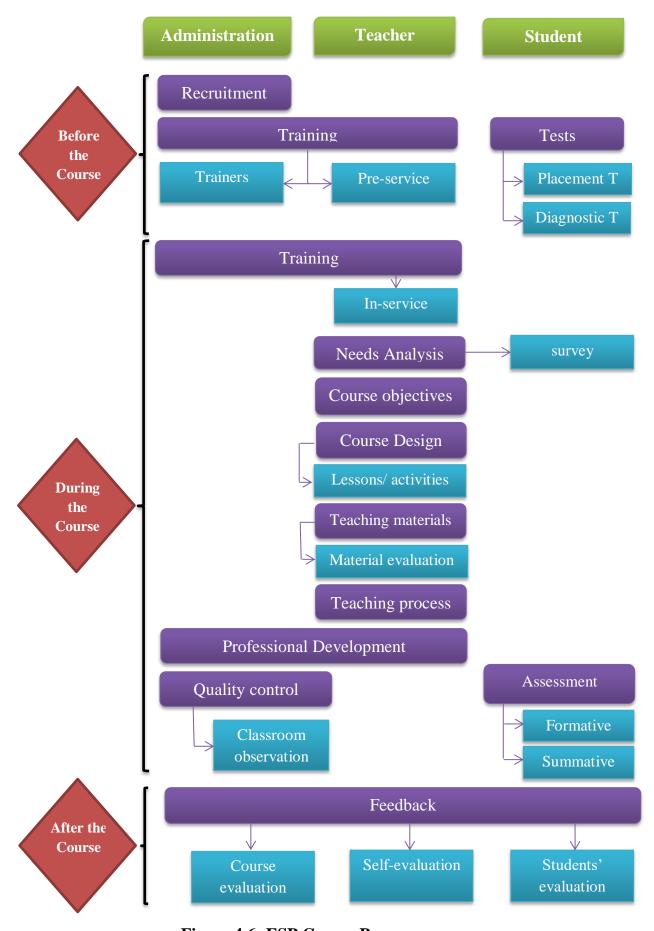


Figure 4.6: ESP Course Programme

4.6. Conclusion

The shortcomings unveiled throughout the evaluation of ESP teaching quality seemed to be related to the teachers' competence, knowledge in addition to the methods and practices they peruse in the Department of Chemistry. This chapter is intended to recommend a number of actions that endeavour to improve the instructional situation in ESP periphery. In view of that, the very first stage of reforms starts with administrators, who need to reconsider the status of ESP teaching and take initiatives to upgrade the recruitment process of teachers, provide efficient teacher training programmes, and increase professional development opportunities. Afterwards, focus was stirred towards the teaching environment, stressing the need to review aspects like class size, homogeneity of groups, and time load. As far as quality assurance is concerned, this chapter recommended the adequate implementation of a QA system on a regular basis so as to ensure the quality of teaching provided in the department; therefore, the researcher proposed a set of evaluation forms to be used in this regard. Lastly, suggested teaching practices were addressed to ESP teachers that are likely to help improve the quality of instruction, including personalised learning, collaboration, and the integration of technology.

General Conclusion

Recent trends in the higher educational sector have heightened interest in the quality of teaching, and ESP periphery is no exception. The present research work aims at assessing the quality of ESP teaching in the Chemistry Department at the University of Tlemcen. The findings of this study lead to the conclusion that ESP teaching is not fully achieving its objectives, and that there are still several factors that hamper the evolution of this teaching milieu, despite the constant research conducted and attempts made to make it better.

The main objective of this research was to measure the adequacy of ESP teaching practices in the case under study. More precisely, to investigate the effectiveness of the current ESP course and ensure that the teaching and learning processes are monitored appropriately. This study aims also to identify the factors that influence the ESP teaching quality so as to make the necessary initiative to mend the deficiencies and yield betterment in this teaching arena. As a result, a range of teaching-related aspects were tackled.

To this end, an exploratory case study was conducted to find answers to the research questions. Accordingly, a triangular approach to the data collection was adopted, in which three different research instruments were employed to enrich the data collection procedure. The sample population addressed the teachers of ESP in the department of chemistry, as well as a students enrolled in the same department, which entails a variety of specialities and branches of knowledge. Due to the variety of sources, the research relied on mixed-method approach in data analysis. Furthermore, quantitative and qualitative data were analysed and conclusions were established based on the results. Afterwards, the findings were interpreted and discussed in relation the research objectives, where answers to research questions were settled and hypotheses were tested.

To structure this research work, four chapters were elaborated. The first chapter was a review of literature that covered the theoretical contributions of preceding works and research, in addition to a conceptual framework of the related key-terms. It entailed conceptualising the term "quality" and its significance in education, quality in ESP teaching, and the critical role of assessment and evaluation in enhancing the teaching and learning outcomes. The second chapter was devoted to the research design and methodology. It explained the practical steps of this research, the adopted approach and methods, sampling procedure, data collection and instrumentation, and data analysis process. As for chapter three, it was concerned with the data coding and analysis in addition the discussion of the main findings of research. At last, implications and recommendations were set in the fourth chapter.

The findings of the present research revealed that the ESP course is deficient and contains some issues that require reconsideration by decision-makers if they are to enhance quality in the ESP sphere. It is widely acknowledged that the ultimate aim of ESP teaching is to equip students with adequate language skills and competencies to be able to communicate effectively in real academic or professional situations. Thus, the content of any ESP course should reflect the learners' needs, wants and necessities, and courses are developed depending on their needs and expectations. Nevertheless, it was found that the ESP course was developed separately from the demands of learners'.

The results of this study corroborates that the ESP course in the Chemistry Department do not fully cater to students needs and expectations. Regardless the fact that the content of course and that the topics they deal with are related to their field of study, yet, when it comes to students' achievements, results are never satisfying. Assumptions reported that the course is not adequate and do not make improvement in any of the language skills since they are still unable to read scientific authentic materials, they cannot communicate effectively in real communication situations, neither in their academic nor professional context.

They also suffer from difficulties in writing paragraphs or extended essays in English, and the same for the listening skill.

What was also discovered is that teachers do not provide needs analysis procedure its real value. Teachers in the Chemistry Department, seldom, conduct needs analysis, and it is most of the time done improperly. This leads to a huge gap between what learners needs and what teachers are actually teaching in the classroom. Thus, the first hypothesis of this research, which claimed that teachers have limited knowledge about learners' needs, is confirmed, seeing that teachers' practices do not cater to students' expectations.

It was also found out that teachers are neither motivating nor encouraging. The answers to the questionnaire demonstrated clearly the dissatisfaction of students with the teaching methods. This was because of the lack of motivation and engagement in classroom activities. From the teachers' perspectives, however, it seemed that learners have constructed this attitude because of their lack of English competence which hinders them from understanding the content of the course and participating in class debates and discussions. The fact that TTT exceeded LTT was proof of what was stated. The conclusion establish in this regard, is that students find that the ESP teaching methods tedious, demotivating and out-dated.

Teaching materials is found to be intricate for both students and teachers. From their stand point, teachers strive to find appropriate materials that are suitable to learners' level, and serve to the teaching objective. As for students, they reported distinct views in this regard. It follows that those with low level of competence face difficulty in understanding the content of texts since they lack the necessary competence to read and fathom the provided knowledge. While the other proportion with high or moderate level of competence managed to understand the content of the teaching materials

In the same line of thought, Considerable factors were discovered to be impediments that hinder the well-functioning of ESP teaching context. The second hypothesis state that Teaching methods, classroom environment, time load, and the teachers' performance were the main factors that controlled the quality of teaching in this study. Results confirmed that the adequate training and teachers preparation is the point of departure to achieve quality in ESP teaching. When teachers are well groomed to perform effectively, they are likely to avoid many issues and difficulties.

Regarding the third research question, results showed that many initiatives could be done as attempts to solve the aforementioned issues and yield to the improvement of teaching quality. This encompassed giving much importance to needs analysis, pursuing adequate teaching methods and raising learners motivation, increasing the time allocated to teaching English in the chemistry department, giving much emphasis on teaching English language skills rather than focusing solely on the terminology of vocabulary repertoire, taking into account group homogeneity, urging teacher to be creative and introduce the use of technology and ICT tolls, hiring competent teachers, reconsidering peer and group work in ESP classes, and raising interest to autonomous learning.

Other initiatives involve reconsidering the significance of teacher education and training, paying attention to conduction of needs analysis, affording professionals to manage and supervise adequate needs analysis procedures, raising awareness about English learning among students, and developing centres that advocate curriculum development, syllabus design, and exchanging knowledge and expertise of ESP teaching.

The present research presented an evaluation of the ESP teaching situation with a focus on teachers and their practices in ESP classes at the Chemistry Department. It gives a place for future researchers to investigate the quality of

General Conclusion

ESP teaching from different angles or with a more in-depth analysis of the ESP teaching and learning aspects. For example, evaluating the content of the existing ESP courses and syllabuses and confirming their congruence with ESP learners' potential. In this light, researchers may centre attention on evaluating listening, reading, speaking, and writing skills, and how they could be improved by the course content.

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Appendices

Appendix A: Students' Questionnaire (English Version)

Students' Questionnaire

This questionnaire is a part of an evaluative research work attempting to assess the quality of ESP teaching. Questions are designed to collect students' perceptions about the ESP teaching. All questionnaires are completely anonymous and all data collected will be treated in confidence and will be retained for research purposes only. Your valuable help is requested by filling this questionnaire in as accurately as possible.

Gender: Male Female
Level:
Specialty:
Rubric 1 : Students' attitudes
1. Do you think that you need English in your future studies or work?
Yes no not sure
2. Do you think that learning English would help to get a better job?
Yes no not sure
3. How do you evaluate your English level before attending English courses at
university?
Excellent good sufficient weak
4. Were you tested at the start of the English course by your teacher for the purpose
of identifying your needs according to your field of study?
Yes no no

Indicate to what extent you agree on the following statements.

Rubric2: Students' perceptions about the ESP course

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1- The content of English course meets my					
needs					
2- The topics in English classes are relevant					
to my field of study					
3- Interesting materials are used within					
English classes					
4- I am able to understand the content of the					
lessons easily					
5- After attending English courses my					
English has improved					
6- I am satisfied with the content of English					
courses					

Part Two: Course Experience Questionnaire

Good Teaching Scale

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
7- The teacher of English motivates me to do					
my best in learning the language					
8- The teacher of English put a lot of time					
into commenting on my activities					
9- The teacher of English makes a real effort					
to understand my difficulties related to the					
language					
10- The teacher of English gives me helpful					
feedback on how I'm going					
11- The teacher of English is good at					
explaining things related to my field of					
study in English					
12- The teacher of English works hard to					
make the course of English interesting and					
useful					
13- The teacher of English uses interesting					
materials related to my field of study					
14- I have no difficulties to understand the					
content of materials (texts, articles)					

Clear Goals and Standards Scale

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
15- It is easy to know the standard of work expected					
16- I usually have a clear idea of where I'm going and what is expected of me in this course					
17- It is often hard to discover what is expected of me in that course					
18-The teacher of English made it clear right from the start what he expected from students					

Appropriate Workload Scale

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
19- The lessons and activities that we have in					
English courses are too heavy					
20-I'm generally given enough time to					
understand things I have to learn					
21- There is a lot of pressure on me to do					
well in this course since I need it in my					
field of study					

Appropriate Assessment Scale

Statement	Strongly agree	agree	neutral	disagree	Strongly disagreed
22-To do well in this course, I need to have knowledge about English in my field of study					
23- Test/exam questions are usually about topics related to my field of study					
24- The teacher seems more interested in testing what I memorize than what I understand					

Generic Skills Scale

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
25- The course developed my English language abilities					
26- The course developed my ability to read and comprehend authentic materials related to my field					
27- As a result of my English course I feel confident about using the language adequately					
28-The course improved my skills in written communication					
29- The ESP course helped me to develop the ability to engage in discussions in English					

Part Three: suggestions to ameliorate the ESP courses

1. What are the practices that you like most in your English course?	
2. In your opinion, what are the things that should be taken into consideration in order to improve the quality of English course in the Chemistry Department?	

Thank you for taking the time to participate in this research work.

Appendix B: Students' Questionnaire (Arabic Version)

الطاليب	سانة	استــــــ

في إطار التحضير لنيل شهادة الدكتوراه، تقوم الباحثة بإجراء دراسة حول "جودة تعليم اللغة الإنجليزية" بقسم الكيمياء. ويهدف هذا الاستبيان إلى جمع معلومات حول تصوّرات الطلبة لممارسات أساتذة اللغة الانجليزية. فيُرجى القراءة المتأنية لكل عبارة من عبارات الاستبيان، ثم وضع علامة (×) في الخانة التي تعبر عن رأيك ومدى موافقتك عليها.

التي تعبر عن رأيك ومدى موافقتك عليها.
وليكن بالعلم أن الإجابات تعتمد بشكل أساسي على الرّأي الشخصىي، وأنه سيتمّ التعامل مع الأجو
بسرية تامّة وستستخدم فقط للغرض البحثي. الرجاء ملأ هذا الاستبيان بأكبر قدر ممكن من الدّقّة.
الجنس: ذكــــ أنثى
المستوى:
التخصص:
الجزء الأول:
1. حسب رأيك تعلّم اللغة الإنجليزية سيفيدك في در اساتك المستقبلية؟
نعم لا لست متأكد
 هل تضن أن إتقان اللغة الانجليزية سيفتح لك آفاقا أكبر من أجل الحصول على عمل؟
نعم لا لست متأكد
 3. كيف كان مستواك باللغة الإنجليزية قبل أخذك لدروس الانجليزية في الجامعة؟
ممتاز ج متو
 4. هل قام أستاذ اللغة الإنجليزية في الحصص الأولى من السنة الدر اسية باختبار مستواك باللغة بهدف
تصميم دروس ملائمة لاحتياجاتك؟ (مثل :اختبار/ أسئلة أو questionnaire)
نعم
 حصص اللغة الانجليزية مهمة بالنسبة لي .
نعم لا
الجزء الثانى:
الفقرات موافق محايد معارض معارط بشدة بشد

	 محتوى حصص اللّغة الانجليزية يلبّي احتياجاتي الدراسية.
	2. المواضيع المدرسة ذات صلة بمجال دراستي (الكيمياء)
	2. اعوامي اعدر منه المعالمة على المعلى (المعلى (المعلى المعلى)
	3. الوسائل المستخدمة من طرف الأستاذ (مثل: نصوص،
	أنشطة، تمارين، فيديوهات) مشوقة ومثيرة للاهتمام.
	4. لدي قدرة على فهم محتوى الحصص والدروس
	بسهولة.
	5. تحسن لدي مستوى اللغة الانجليزية بعد تلقي حصص
	لتدريس هذه اللغة في الجامعة.
	6. أنا راضٍ عن محتوى حصص اللغة الانجليزية الذي
	أتلقًاه

الجزء الثالث:

أولا: جودة التعليم

					ارو، جراه است
معارض بشدة	معارض	محايد	موافق	موافق بشدة	الفقرات
					7. يحفّزني الأستاذ على بذل قصار جهدي في تعلّم اللّغة والمشاركة في نشاطات أثناء الحصّة.
					 8. يكرّس الأستاذ وقتا وجهدا لتقييم أدائي وإبداء الملاحظات أثناء الحصّة.
					 9. يقوم الأستاذ ببذل مجهود لفهم الصنعوبات التي أواجهها في تعلم اللغة.
					10. يحرص الأستاذ على إعطائي ملاحظات مفيدة حول المستوى الذي وصلته في كل مرحلة.
					11. الأستاذ جيد جدًا في شرح الأمور المتعلقة بمجال دراستي باللغة الإنجليزية.
					12. من الواضح أنّ الأستاذ يبذل جهدا كبيرا لجعل حصص اللغة الانجليزية شيّقة ومفيدة.
					13. يستخدم الأستاذ وسائل (كتب، نصوص، نشاطات، فيديوهات) متعلّقة بمجال دراستي.
					14. ليس لديّ أي صعوبة في فهم محتوى الوسائل (نشاطات، كتب، نصوص، فيديو هات) المستعملة.

ثانيا: وضوح الأهداف

معارض بشدة	معارض	محايد	موافق	موافق بشدة	الفقرات
					15. من السنهل معرفة مستوى العمل المتوقع مني فيما يخص دروس اللغة الانجليزية.
					16. لدي فكرة واضحة عن ما يتوجّب على فعله وما هو متوقّع مني في حصص اللغة الانجليزية.

		17. من الصعب معرفة ماهو متوقّع مني فعله فيما يخصّ دروس اللغة الانجليزية.
		18. قام الأستاذ منذ البداية بإيضاح ما هو متوقّع مني فعله أثناء الحصص.

ثالثا: كمية العمل

معارض بشدة	معارض	محايد	موافق	موافق بشدة	الفقرات
					19. الدّروس والأنشطة التي نتلقّاها ذات محتوى صعب و معقد.
					20. عادة ما يكون لديّ وقتا كافيا لفهم الأمور اللّازم تعلّمها.
					21. هناك ضغط كبير عليّ لتعلّم اللغة لانجليزية لأنني أحتاجها في دراساتي.

رابعا: طبيعة التقييم

معارض بشدة	معارض	محايد	موافق	موافق بشدة	الفقرات
					22. لأحصل على علامة جيّدة، يجب أن يكون لديّ قدر كاف من المعلومات حول مجال دراستي باللغة الانجليزية.
					23. أسئلة الامتحان غالبا ما تكون حول مواضيع متعلّقة بمجال دراستي.
					24. يعتمد الأستاذ في التقويم على ما أحفظ وليس على ما أفهم.

خامسا: تطورات الطالب

معارض بشدة	معارض	محايد	موافق	موافق بشدة	الفقرات
					25. حصص اللغة الانجليزية التي أتلقاها في الجامعة طورت قدراتي اللغوية.
					26. حصص اللغة الانجليزية التي أتلقاها في الجامعة طوّرت قدراتي على قراءة وفهم الكتب والمقالات الأجنبية المتعلّقة بمجال دراستي.
					27. بفضل حصص اللغة الانجليزية التي أتلقاها في الجامعة أستطيع استعمال اللغة الانجليزية بسهولة وسلاسة.
					28. بفضل حصص اللغة الانجليزية التي أتلقاها في الجامعة أصبحت قادرا على الكتابة باللغة الانجليزية.

					29. بفضل حصص اللغة الانجليزية التي أتلقاها في الجامعة لأصبحت قادرا على التّكلّم وخوض نقاشات باللغة الانجليزية
					الجزء الثالث:
		?	الانجليزية	حصص اللغة	1. ماهي أكثر الممارسات أو الأنشطة التي تفضّلها في .
					•••••••••••••••••••••••••••••••••••••••
	يم" اللغة	"جودة تعل	بل تحسین	عتبار من أج	 حسب رأيك، ماهي الأشياء التي يجب أخذها بعين الا الانجليزية في قسم الكيمياء؟
•••••	•••••	•••••	•••••	•••••	
•••••	••••••	••••••	••••••	•••••	

Appendix C: Teacher Interview

Appendix C Teacher Interview

Teacher Interview

Age:
Degree:
Specialization:
Years of teaching experience: Institution:
1. Did you have any training in teaching ESP courses?
If yes, do you think your academic training has prepared you to be a good teacher? How?
2. How did you get familiar with ESP?
3. Taking your experience into account, what type of knowledge a language teacher needs in order to teach ESP?
4. According to you, what are the needs of students regarding ESP in the chemistry context?
5. What are the sources of your ESP content knowledge?
6. How do you prepare for your ESP classes? Do you use specific activities, audio-visual tools? Why or why not?
7. How do you assess your students' performance in ESP?
8. Do you evaluate your own teaching (professional portfolio, self-reflection, peer observation etc.)? Why, or why not?
9. Is there any teacher evaluation system at this department? (quality assurance system)
10. How would you describe your experience as an ESP teacher?
11. What challenges have you encountered in teaching ESP? How do you cope

with these challenges?

Appendix C Teacher Interview

12. Do you feel like your abilities as an ESP teacher are continually improving? How?

- 13. Are you satisfied with the working conditions?
- 14. Would you like to provide suggestions that would help in improving the quality of ESP teaching situation?

Thank you for your cooperation!

Appendix D: Teacher Evaluation Form for Students

Teacher Evaluation Form for Students

Gender: Male Female Female			
Level:			
Specialty:			
Date:			
Please rate the following aspects of ESP teaching i	n your depa	artment.	
Teacher knowledge			
	Agree	Undecided	Disagree
The teacher presents a wide range of content			
knowledge in the specific field of study.			
knowledge in the specific field of study.			
The teacher connects content knowledge to			
<u> </u>			
The teacher connects content knowledge to			
The teacher connects content knowledge to target-situation applications.			
The teacher connects content knowledge to target-situation applications. The teacher communicates accurate knowledge			
The teacher connects content knowledge to target-situation applications. The teacher communicates accurate knowledge in the specific field of study.			

Teaching Quality

	Agree	Undecided	Disagree
The teacher is good at explaining things related			
to language in the specific field of study.			
The teacher uses simple language that can be			
understood by students.			
The teacher assigns tasks and activities that			
match the learners' levels.			
The teacher creates an encouraging atmosphere			
for debates and discussions in the classroom.			
The teacher makes students feel comfortable			
asking questions and getting assistance.			
Include adequate technology tools to improve			
students' learning experiences.			
The teacher shows creativity in the			
development of class tasks.			

Goals and Objectives

	Agree	Undecided	Disagree
The teacher set clear learning objectives at the			
beginning of the course.			
The teacher is keen to help learners achieve the			
intended objectives.			
The objectives of the course are adequate for			
learners' needs and wants.			

Teacher-learner Relationship

	Agree	Undecided	Disagree
The teacher treats students with respect.			
The teacher is enthusiastic to teach the course.			
The teacher is helpful for students inside and			
outside the classroom.			
Teacher creates a safe atmosphere for debates and discussions with students.			

Teaching Material

	Agree	Undecided	Disagree
Teaching materials are clear and easy to			
understand.			
Teaching materials are interesting and relevant			
to the field of study.			
The teacher introduces technology in the			
classroom.			
Teaching materials are clear and easy to			
understand.			

Assessment

	Agree	Undecided	Disagree
The teacher gives tests and exams that reflect			
the materials covered in the lectures.			
The teacher uses different methods of			
assessment and evaluation.			
The teacher provides timely feedback about			
learners' performance.			
The teacher is fair and set defined and clear			
grading criteria.			

Appendix E: Teacher Observation Form

Teacher Observation Form

Name of teacher observed:
Name of observer/evaluator:
Date:
Group/section:

Please fill in the teacher observation form below. Rate performance based on the following:

Excellent: The teacher displayed consistency and remarkable talent that distinguishes him or her as excellent.

Above average: The teacher presents expertise and effective teaching skills.

Average: The teacher meets the necessary minimal standards.

Minimal: the teacher demonstrated minimal competence but did not meet the essential standards.

Poor: the teacher is unable to demonstrate what is considered the bare minimum of the standards of competence.

Planning and Preparation

	Poor	Minimal	Average	Above average	Excellent
The teacher is well prepared.				average	
The teacher plans the lessons in					
a manner conducive to easy					
understanding by students.					
The teacher keeps the lessons					
sequenced and related.					
The teacher uses activities,					
materials and sources					
appropriate to the learners'					
needs.					
The teacher uses materials					
relevant to the lessons.					
The teacher shows flexibility in					
the lesson structure.					

Professionalism

	Poor	Minimal	Average	Above average	Excellent
The teacher is punctual.				u vezuge	
The teacher shows					
commitment to teaching.					
The teacher uses the entire					
time allotted to the class.					
The teacher takes part in					
professional activities.					
The teacher contributes to					
the professional knowledge					
and expertise of ESP					
teaching and learning.					

Knowledge of Language and Content

	Poor	Minimal	Average	Above	Excellent
				average	
The teacher speaks English					
fluently and accurately.					
The teacher writes effectively.					
The teacher communicates in					
coherent and understandable					
language.					
The teacher presents the content					
knowledge clearly.					
The teacher is knowledgeable					
about the subject matter.					

Teaching Methods

	Poor	Minimal	Average	Above	Excellent
				average	
The teacher motivates students					
to be willing to participate in the					
class discussions.					
The teacher use activities that					
stimulate the critical thinking of					
students (questioning, problem					

solving, reflection).			
The teacher employs a variety of			
instructional strategies to			
accommodate the different			
learning styles in the class.			
The teacher promotes			
competitiveness among students.			
The teacher maintains group			
work and cooperation between			
students.			

Pedagogical Skills

	Poor	Minimal	Average	Above average	Excellent
The teacher uses teaching				J	
techniques that stimulate					
students' spirit of inquiry.					
The teacher uses a variety of					
methods that correspond to the					
specific field of study and the					
learners' needs.					
The teacher's voice is clear and					
loud enough to attract students'					
attention.					
The teacher collaborates with					
colleagues to upgrade his					
performance.					
The teacher understands					
students' weaknesses and helps					
them overcome the difficulties.					

Classroom Environment

	Poor	Minimal	Average	Above	Excellent
				average	
The teacher creates a					
comfortable atmosphere in the					
classroom.					
Class size is adequate.					

The teacher is able to control the			
students and keep them quiet			
during the class.			
The teacher uses strategies to			
keep students focused in the			
classroom.			
The teacher creates a			
comfortable atmosphere in the			
classroom.			

Signature of Observer

Appendix F: Teacher Self-Evaluation Form

Teacher Self-Evaluation Form

1) Teaching procedure:

- How did my ESP course go? Am I satisfied with my teaching?
- Which aspects of the course or process of teaching were successful or unsuccessful?
- What aspects were most interesting in this teaching experience? What was most frustrating?
- How can I judge my mastery of the course content in this discipline (Chemistry)?
- Were my teaching methods congruent with the requirements of ESP teaching principles?

2) Course Goals

- How have I designed ESP course goals and learning objectives, and on what basis were these selected?
- Did I relate course objectives and content to ESP students' perceived needs and wants?
- How well did I achieve these goals and objectives?

3) Preparation and Teaching Materials

- Was my lesson plan progressive and motivating, and did it meet the needs and abilities of my students?
- Were the provided materials adequate for the learners' field of study and their ability to comprehend?
- Did I introduce technological aids in my teaching?

4) Relationship with students

- Do I maintain a friendly and respectful relationship with my students?
- Was I successful in triggering students' involvement and participation in the classroom?

- Did I encourage students to ask for assistance without hesitation?
- Was I enthusiastic and approachable to students in the classroom?

5) Assessment

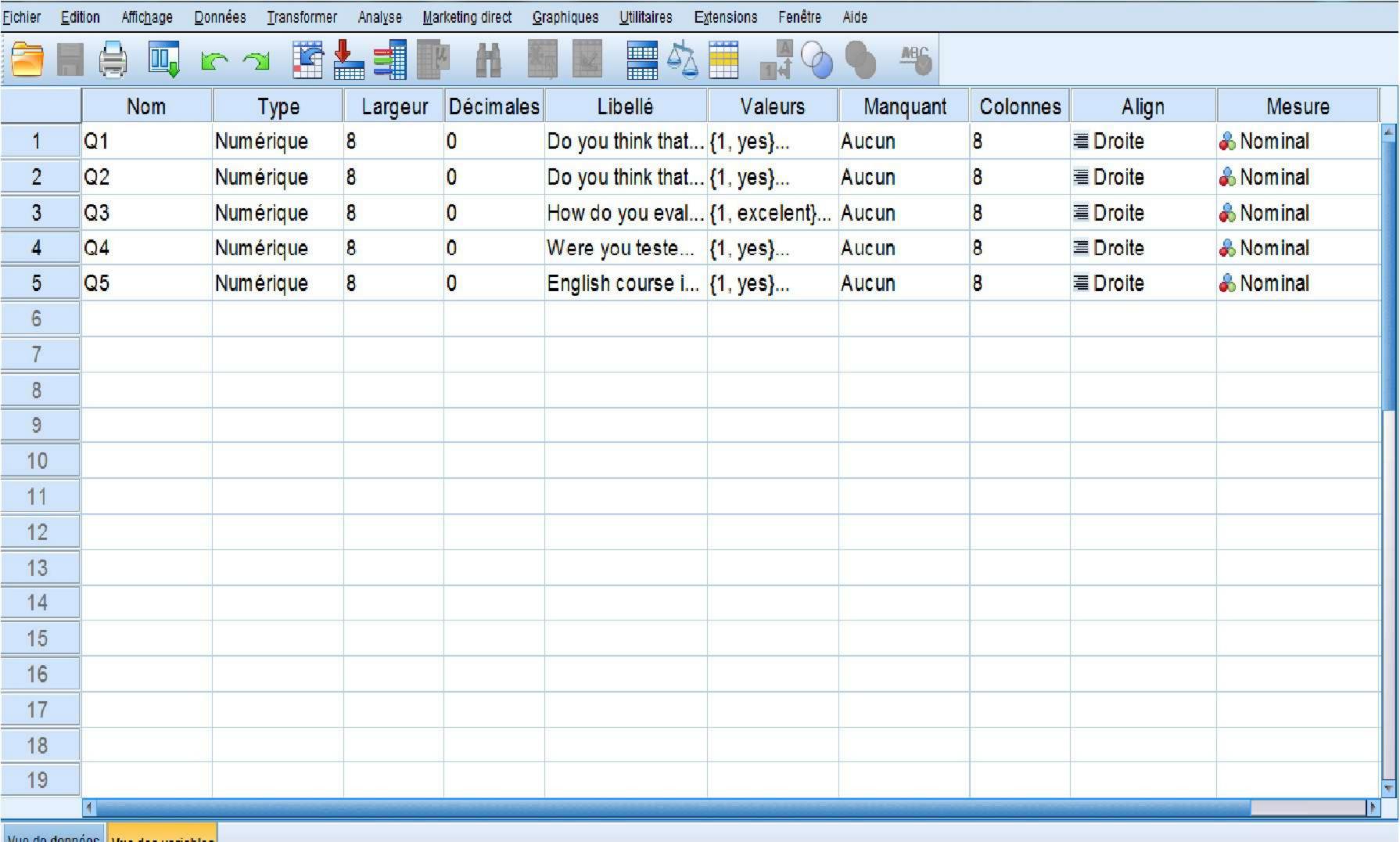
- Can I ensure that the assessment methods I use are adequate to assess the intended learning outcomes in relation to ESP standards?
- Did I use formative assessment effectively to keep students informed about their progress throughout the course?
- Was my feedback about students effective in helping them improve their competence?
- Did I use innovative methods in examinations, assignments and activities rather than relying on traditional assessment methods?

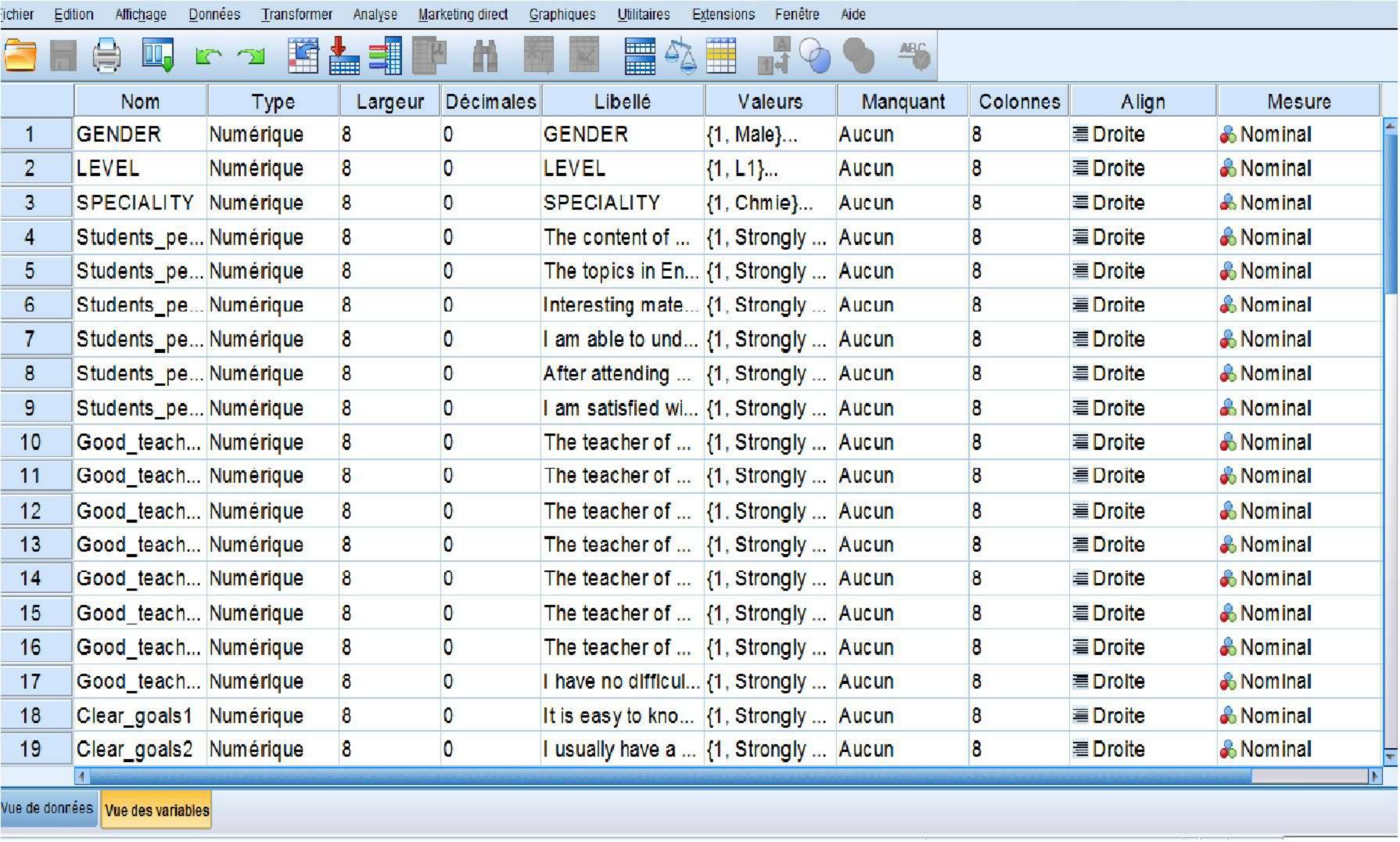
6) Efforts to Increase Teaching Effectiveness

- What actions have I taken to improve my skills and expertise as an ESP teacher?
- Did I attend any teaching development actions (seminars, workshops, professional development initiatives)?
- In what ways do I evaluate or reflect on my teaching practice? Did this help me to develop my teaching skills?

7) Results of Instructional Efforts

- Did my students achieve improvement in their language skills after this course?
- Were the ESP course objectives accomplished properly?
- Was I successful in raising learners' interest and motivation towards English learning?
- Did students construct a good amount of technical knowledge (vocabulary and terminology) related to their field of study?





<u>Fichier</u>	dition Affic <u>h</u> age <u>D</u> o	nnées <u>T</u> ransformer	Anal <u>y</u> se <u>M</u> a	rketing <mark>direct <u>G</u>r</mark>	aphiques <u>U</u> tilitaires E <u>x</u>	tensions Fenêtre	Aide			
				H			ARG ARG			
	Nom	Туре	Largeur	Décimales	Libellé	Valeurs	Manquant	Colonnes	Align	Mesure
14	Good_teach	Numérique	8	0	The teacher of	{1, Strongly	Aucun	8	■ Droite	& Nominal
15	Good_teach	Num é rique	8	0	The teacher of	{1, Strongly	Aucun	8	■ Droite	♣ Nominal
16	Good_teach	Num érique	8	0	The teacher of	{1, Strongly	Aucun	8	■ Droite	& Nominal
17	Good_teach	Num érique	8	0	I have no difficul	{1, Strongly	Aucun	8	≣ Droite	& Nominal
18	Clear_goals1	Num é rique	8	0	It is easy to kno	{1, Strongly	Aucun	8	■ Droite	🚜 Nom inal
19	Clear_goals2	Num érique	8	0	I usually have a	{1, Strongly	Aucun	8	≣ Droite	& Nominal
20	Clear_goals3	Num érique	8	0	It is often hard t	{1, Strongly	Aucun	8	≣ Droite	& Nominal
21	Clear_goals4	Num érique	8	0	The teacher of	{1, Strongly	Aucun	8	■ Droite	& Nominal
22	Workload1	Numér <mark>i</mark> que	8	0	The lessons an	{1, Strongly	Aucun	8	≣ Droite	& Nominal
23	Workload2	Num é rique	8	0	I'm generally giv	{1, Strongly	Aucun	8	■ Droite	🚜 Nom inal
24	Workload3	Num érique	8	0	There is a lot of	{1, Strongly	Aucun	8	■ Droite	& Nominal
25	Assessment1	Num érique .	8	0	To do well in thi	{1, Strongly	Aucun	8	■ Droite	& Nominal
26	Assessment2	Numér <mark>i</mark> que	8	0	Test/exam ques	{1, Strongly	Aucun	8	■ Droite	🚜 Nom inal
27	Assessment3	Num érique	8	0	The teacher see	{1, Strongly	Aucun	8	■ Droite	♣ Nominal
28	Skills1	Numérique	8	0	The course dev	{1, Strongly	Aucun	8	■ Droite	& Nominal
29	Skills2	Num é rique	8	0	The course dev	{1, Strongly	Aucun	8	≣ Droite	& Nominal
30	Skills3	Num é <mark>ri</mark> que	8	0	As a result of m	{1, Strongly	Aucun	8	≣ Droite	🚜 Nom inal
31	Skills4	Num érique	8	0	The course impr	{1, Strongly	Aucun	8	≣ Droite	& Nominal
32	Skills5	Num érique	8	0	The ESP cours	{1, Strongly	Aucun	8	≣ Droite	🚜 Nominal 💂
	1							-		<u> </u>
Vue de do	vue des variables	5								

تركز هذه الدراسة على جودة تدريس اللغة الإنجليزية لأغراض مخصصة في مؤسسات التعليم العالي، حيث تسعى إلى تقييم وضعية تدريس اللغة الإنجليزية لأغراض مخصصة في قسم الكيمياء بجامعة تلمسان (الجزائر). كما تهدف هذه الدراسة إلى الحصول على معلومات حول جودة المادة التدريسية للغة الانجليزية المقدمة لفائدة طلبة الكيمياء، والاطلاع على الطرق المستخدمة في التدريس من طرف أساتذة اللغة الانجليزية ومدى تلبيتها لمتطلبات وتوقعات الطلبة في هذه المادة، مع الكشف عن أهم العوامل المؤثرة على جودة التدريس. وعليه أجريت هذه الدراسة لاستكشاف ممارسات المعلمين ووجهات نظر الطلبة بناء على إجراءات جمع البيانات الكمية والنوعية. واقترحت هذه الدراسة طرقا لتحسين جودة عملية التدريس والتعلم في اللغة الإنجليزية لأغراض مخصصة وإعداد متعلمين ذوي قدرة ومهارة تؤهلهم على التواصل بفاعلية في مختلف مناح الحياة المهنية.

كلمات مفتاحية: التقييم، اللغة الإنجليزية لأغراض مخصصة، كلية الكيمياء، جودة التدريس.

Résumé

Cette étude porte sur la qualité de l'enseignement de l'anglais à des fins spécifiques (ESP) au sein des établissements d'enseignement supérieur et vise à réaliser une évaluation sur l'enseignement de l'ESP au Département de Chimie de l'Université de Tlemcen (Algérie). L'objectif de cette recherche est d'obtenir une rétroaction sur la qualité des cours offerts, s'assurer que les pratiques existantes répondent aux attentes des apprenants et à dévoiler les facteurs d'influence sur la qualité de l'enseignement d'ESP. Pour cela, une étude de cas a été menée pour explorer les pratiques des enseignants et les perspectives des apprenants sur la base de procédures de collecte de données quantitatives et qualitatives. Cette étude suggère des méthodes pour améliorer la qualité d'enseignement et d'apprentissage de l'ESP et de préparer les étudiants à communiquer efficacement dans des situations réelles.

Mots-clés: Evaluation, département de chimie, ESP, qualité de l'enseignement.

Summary

The present research work focuses on the quality of ESP teaching in higher educational institutions, and makes an attempt to assess the ESP teaching in the Department of Chemistry at the University of Tlemcen (Algeria). Its main aim is to obtain feedback about the quality of the course provided, ensure that the existing practices meet the expectations of learners, and unveil the major influencing factors on the teaching quality. To this end, a case study research was embarked on to explore teachers' practices and learners' perspectives based on quantitative and qualitative data collection procedures. This study suggests ways to enhance the quality of the ESP teaching and learning process and prepare learners to be effective communicators in real-life situations.

Keywords: Assessment, chemistry department, ESP, quality of teaching.