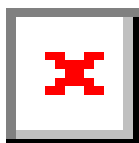


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The Importance of Needs Analysis in Designing an ESP Course for Dentistry Students at University of Ghardaia

**A Dissertation Submitted in Partial Fulfilment of the Requirements for
Master's Degree in English Applied Linguistics**

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Declaration

I hereby declare that the materials and tools used for this research are the authentic results of my investigation and examination concerning the matter. It does not implement any extra information or substances that were previously mentioned or published by other researchers, except for those that are indicated in quotations, citations, and in the list of references.

Date: _____

Signed: _____

Dedication

I dedicate this work :

To my parents who have provided me with their encouragement, love and understanding.

To my brothers and my sister for their whole-hearted support.

To all who were there for me, thank you for your help and encouragement

To all those who have been supportive, caring and patient, I dedicate this simple work.

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Abstract

The present research examines how needs analysis (NA) contributes to the development of an effective ESP programme for dentistry students at the University of Ghardaia. More specifically, it aims to identify the specific language needs and challenges that dentistry students experience when they study English for dental purposes. To this end, a mixed-methods design was used by distributing questionnaires to dentistry students and ESP teachers while observing classroom activities. Quantitative data were analysed using descriptive statistics and presented through graphs and pie charts while qualitative data were analysed automatically. The major findings showed that dentistry students acknowledge the significance of English for their field because of how globalisation and international dental research and practice operate. Students experience challenges with various language skills, which involve reading scientific documents and understanding complex dental terms, writing academic papers and interacting in professional situations. The study findings established that students' academic performance and comprehension abilities depended on their linguistic competence. Students expressed a need for dental ESP materials because they do not know dental vocabulary, and they have not experienced real dental language learning. The study recommends an ESP curriculum based on a comprehensive NA, which should include dental English materials and discipline-based language training and interactive teaching methods to support student academic and professional success in dentistry.

Keywords: *English for Specific Purposes (ESP), Needs Analysis, Dentistry, ESP Course Design, Language Needs, Linguistic Competence, Dental Terminology*

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List of Abbreviations

ESP: English for Specific Purposes

EMP: English for Medical Purposes

EDP: English for Dental Purposes

GE: General English

L2: Second Language

NA: Needs Analysis

General Introduction

Introduction

English has become the first international language for many reasons. English is the language of international communication as it is widely used in diplomacy, travel, media and, of course, the Internet. English is the language of research, in that students or researchers who have English language proficiency can have access to the great body of research published in English. Due to the importance of English, English for Specific Purposes (ESP) has emerged to meet the different needs of learners all over the world and in different specialities. As a result, many ESP courses have been published covering a varied number of fields such as business, engineering, law, tourism, medicine and dentistry. Providing ESP courses, as is the case of the latter, dentistry, for example, is based on the learners' needs which means that NA is the backbone of any ESP course design.

Background to the Study

Due to globalisation and technology, the English language has become the medium of communication in science and business. The rise of English for specific purposes is happening due to the growing demand for English by scholars and professionals for specific purposes. This occurrence led to the development of ESP, which is a form of English Language Teaching (ELT) oriented towards meeting the specific linguistic and communicative needs of learners in academic, professional, or vocational contexts.

English is essential in dentistry, which makes it a perfect example of a profession where language proficiency is crucial. What are the reasons for updating dental practices and services? Advanced research and professional literature are often published in English. Language is a barrier to adoption. The students and practitioners of dentistry must be qualified in understanding scientific texts, working with terminology, taking part in international conferences, and participating in global professional groups. The knowledge of English for Dental Purposes has turned out to be a professional necessity rather than a mere academic requirement.

Today in Algeria, educators recognise how important ESP is in higher education institutions. Ghardaia University, like many Algerian universities, has adopted English as a language of instruction, especially in science and medicine. The Dentistry Department at University of Ghardaia trains learners for the practice of the profession. Nonetheless, a systematic investigation focusing on how effective the current programme is in addressing the needs of dentists in training is needed.

An effective ESP course will begin with a NA. It provides teachers with a systematic and principled means of determining what learners must do with the target language in their own

context. A thorough NA will enable ESP course designers to design relevant and focused curricula that respond to the genuine needs of target learners. Unlike general English language courses on offer, it is tailored specifically to the linguistic needs of a particular industry.

Statement of Purpose

The primary aim of this study is to investigate the importance of NA in designing an effective ESP course for dentistry students at Ghardaia University. To achieve this aim, the study pursues the following specific objectives:

- To identify the specific English language needs of dentistry students in terms of target needs (necessities, lacks, and wants) and learning needs.
- To explore the main difficulties and challenges that dentistry students encounter when learning and using English for dental purposes.
- To examine the perspectives of both students and ESP teachers regarding the current ESP provision for dentistry students.
- To demonstrate how NA can inform the design of a more effective, targeted, and relevant ESP curriculum for dentistry students.
- To provide pedagogical recommendations for improving ESP instruction for dentistry students based on the findings of the NA.

Statement of Problem

The dental education system at Ghardaia University lacks essential English language support for dentistry students because dental students need English for Specific Purposes to achieve their educational goals. Preliminary observations show that dentistry students face difficult challenges because they must understand scientific texts, specialised dental terms, research reports and professional communication. The current problems exist because students must use specific language skills, which they learn from ESP courses, for their academic studies and their future job requirements.

General English courses develop basic language skills, but students in specialised fields like dentistry need specific vocabulary and discourse patterns and communicative functions, which these courses do not provide. Students who must read dental research articles will find themselves unable to understand anatomical descriptions and clinical procedures, which are explained in English and professional discussions must use appropriate register and terminology. Students who lack proper language training will experience academic difficulties because they miss international knowledge resources, which can help their professional growth.

The absence of systematic NA in ESP course design at Ghardaia University results in dental students learning content that schools present through educational assumptions instead of educational requirements. The education program will fail because it needs a better understanding of students' target needs and their existing skill gaps and needed knowledge areas. The current situation requires a complete research project that will examine the specific English language requirements of dentistry students while establishing the effectiveness of NA in developing successful ESP programs.

➤ **Research Questions**

This study seeks to address the following research questions:

- What are the specific English language needs of dentistry students at Ghardaia University?
- What are the main difficulties faced by dentistry students in their ESP learning experience?
- How can NA contribute to designing an effective ESP course for dentistry students at Ghardaia University?

➤ **Research Hypotheses**

Based on the research questions, the following hypotheses are proposed:

- Dentistry students at Ghardaia University have specific language needs related to reading scientific texts, understanding dental terminology, writing research reports, and professional communication that are not fully addressed by the current ESP provision.
- The main difficulties faced by dentistry students include comprehending complex scientific vocabulary, understanding specialised dental discourse, limited access to appropriate learning materials, and insufficient exposure to authentic dental English.
- A systematic NA can provide valuable insights that will enable the design of a targeted, relevant, and effective ESP course that better meets the specific requirements of dentistry students.

Significance of the Study

The research study provides complete theoretical and practical advantages for English learning and teaching activities that focus on specific purposes for dental students. The study advances existing research on NA in English for specific purposes through its findings, which apply to medical and dental educational settings. The study provides empirical evidence about the specific language requirements and language difficulties faced by dentistry students in

Algeria, which enhances our understanding of English for specific purposes in medical domains and supports worldwide research on specialised language education.

Regarding the results, the study will have practical benefits for all stakeholders. According to the findings, ESP providers can make improvements to enable them to meet the real needs of dentistry students and improve their academic performance, professional competence, and employment potential. The study can be beneficial to ESP teachers and course designers in making decisions about curriculum, materials, and pedagogy based on data. Insights from the study may help to develop a needs-based ESP curriculum for dentistry students at Ghardaia University.

This research also has implications for ESP provision in Algerian higher education. The methodologies and findings of this research can be adapted and applied to other disciplines and universities, as Algerian universities recognise the necessity of teaching English in scientific and professional education. The effectiveness of systematic NA in ESP course design will be demonstrated through the present study's usefulness in promoting evidence-based development of ESP curricula in an increasing number of disciplines.

The study demonstrates a model for NA and course development, which will help to establish ESP provision professionally. The research tools and analytic frameworks most useful for the specific context, as well as the teaching suggestions, could be useful for other researchers and practitioners working in similar contexts.

Scope and Limitations

Dentistry students at Ghardaia University are the subject of the study. The study investigates needs and problems in English for Dental Purposes and the use of NA in designing an ESP course tailored to their requirements. The recommendations are limited to Dentistry Education at Ghardaia University, although the findings can be generalised to other specialities and institutions.

There are several limitations present. Initially, participant bias might affect the findings through the examination of responses to the questionnaire data. The research uses sufficient sample size to accomplish its objectives but the study only includes one student group which does not represent all dentistry students in Algeria. The study demonstrates existing requirements and challenges but research evidence demonstrates needs and challenges which emerged after the study methodology had been developed.

The research study recommends changes for ESP course design yet it does not include the process to introduce and assess a new curriculum which needs an extensive longitudinal research project.

Research Methodology

The study employs mixed-methods research design which uses both quantitative and qualitative methods to achieve complete understanding of the research issue. The research uses three data collection tools which include a dentistry student questionnaire and an ESP teacher questionnaire and classroom observation method. The student questionnaire assesses their English language requirements and their language difficulties and their language attitudes and their language preferences for ESP learning. The teacher questionnaire investigates ESP teachers' perspectives on students' needs and the challenges they face in ESP teaching and the teaching methods they currently use. Classroom observations provide direct evidence about the authentic teaching and learning activities which occur in ESP classrooms.

The study population includes dentistry students and ESP teachers from Ghardaia University. Researchers used purposive sampling to choose participants who would provide relevant information needed to address the research questions. The researchers used descriptive statistics to analyze the questionnaire data which they presented through graphs and pie charts and tables. The researchers performed thematic analysis on qualitative data which they obtained from open-ended questions and classroom observations to identify patterns and main themes and important insights. The combined results of quantitative and qualitative research provide deep understanding about the ESP challenges and needs of dentistry students.

Structure of the Study

The dissertation will consist of four major chapters apart from the overall introduction and conclusion.

Chapter One: Literature Review. The literature review examines the ESP subject matter, especially the English for Medical Purposes and English for Dental Purposes courses, in this section. It covers the theoretical grounds of ESP, principles of ESP course design, concept and types of NA, and a review of previous research on ESP in the field of medicine and dentistry.

Chapter Two describes the research design, population, sampling techniques, and data collection instruments. The methodology section describes the instruments employed, including the questionnaires and observation protocols, as well as data collection and analysis procedures.

Chapter One:
Literature Review

Introduction

This chapter evaluates all existing theoretical and empirical research that relates to the current study. The chapter starts with a historical overview of ESP development and its theoretical foundations.

The chapter investigates the English for Medical and Dental Purposes context by analysing the particular characteristics that define healthcare education needs for ESP. The chapter investigates NA through its various types, which function as the primary element for designing ESP courses.

The chapter assesses earlier research studies that investigated ESP in medical and dental environments while focusing on research conducted within comparable educational settings. The assessment provides an explanation of ESP course development principles through the connection between NA and successful curriculum construction.

1.1. Historical Background of ESP

English for Specific Purposes emerged as a separate language teaching method during the time after World War II, when educational approaches started to develop in the 1960s. The international scientific and technological field experienced its largest expansion during this period, which saw the United States become the leading economic and technological nation. English became the worldwide language for scientific communication, which created a requirement for English instruction that taught specific language skills needed in different professional and academic fields (Hutchinson & Waters, 1987).

Dudley-Evans and St. John (1998) identified three factors that triggered the emergence and growth of English for Specific Purposes during their time.

The post-World War II economic expansion created a strong demand for English that needed to be modified according to specific language requirements. The linguistics field experienced a major revolution, which shifted its focus from describing language structures to studying how people use language to communicate.

The research of Halliday, Hymes, and other scholars in functional and sociolinguistics established theoretical grounds for studying communicative language functions instead of analysing language elements separately. The language learning process requires a learner-centred approach because students have unique needs and interests, which should determine what content and teaching methodologies should be included in language programs.

The development of ESP progressed through three main development phases. The first phase of ESP development, from the 1960s to the 1970s, studied register analysis to determine the grammatical and lexical features that define specific registers, such as scientific English or technical English.

The 1970s introduced a new focus on rhetorical or discourse analysis, which examined sentence combination patterns to create meaning from discourse. The 1980s brought a shift to target situation analysis, which emphasised the language skills and strategies needed by learners in specific professional and academic environments. ESP has adopted genre analysis and corpus-based methods, which offer advanced tools for examining specialised language use and creating customised instructional materials (Flowerdew, 2013).

1.2. English for Specific Purposes (ESP)

1.2.1. Definition and Origins of ESP

Defining English for Specific Purposes precisely has proven challenging, and various scholars have offered different perspectives. Mackay and Mountford (1978) defined ESP as "the teaching of English for a clearly utilitarian purpose" (p. 2), which shows that ESP instruction has a specific goal. ESP courses are developed through the specific language needs of learners who need English for academic, professional, or vocational purposes.

Hutchinson and Waters (1987) provided a more nuanced perspective, which shows that ESP must be recognised as an educational method instead of being seen as an end product. They assert that ESP is not a particular kind of language or teaching material but rather an approach to language teaching that focuses on what students require. The foundation of ESP rests on one essential question, which asks, "Why does this student need to learn a foreign language?" The answer to this question relates to the learners, the language required, and the learning context, which establishes NA as the fundamental requirement for ESP.

ESP courses, according to Robinson (1991), must fulfil two main criteria because the courses direct students towards specific goals and require students to study English based on their academic and professional English language needs. The criteria which distinguish ESP from standard English language instruction provide a foundation for studying how ESP teaching methods create unique educational experiences.

According to Basturkmen (2006), language functions are important in ESP because people learn language to improve their language skills for academic, professional, or workplace needs. The definition shows how ESP functions as an applied discipline that treats language learning as a tool for achieving specific goals instead of a learning destination.

1.2.2. Characteristics of ESP

The distinctive features of ESP courses establish particular characteristics that result in their separation from traditional English language programs. First, ESP is designed to meet the specific needs of the learners. ESP courses exist to support students who need language skills for specific contexts instead of offering general language development programmes, which all English courses provide. The systematic NA process creates a pathway for

identifying learner needs, which enables the creation of all course elements, including objectives, content, materials and assessment.

Second, ESP makes use of the underlying methodology and activities of the disciplines it serves. Medical ESP programmes develop learning materials through the use of authentic medical materials that include case studies, patient records and research articles. The language is taught through its integration with all concepts, procedures and specific discipline discourse. The method helps students understand how their educational content connects to real-world use.

Third, ESP is centred on the language (grammar, lexis, register), skills, discourse, and genres appropriate to specific activities. ESP programmes only teach those parts that the target audience needs to know for their specific English language requirements. The method helps students learn better through targeted study of essential skills that they need for their actual requirements.

The design of ESP courses targets adult students who study at tertiary institutions and who work in professional environments. The adult learners already possess academic expertise in their specialised fields, together with advanced cognitive abilities and learning techniques. Adult learners who possess content expertise can build upon their existing knowledge base and established learning strategies through ESP instruction.

1.2.3. Types of ESP

The field of ESP has two principal divisions, which are English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). English for Academic Purposes helps students who require English language skills for their university studies. The programme includes English for Science and Technology, English for Medical Purposes, English for Legal Purposes, and English for Business and Economics, among other language programs. EAP courses train students to read academic texts, write research papers, listen to lectures and take part in academic discussions.

English for Occupational Purposes exists to help professionals who require English language skills for their job responsibilities. The category contains English for Professional Purposes, which includes English for lawyers and doctors, and English for engineers and English for Vocational Purposes, which covers English for tourism, aviation and nursing. EOP courses train students to handle all professional communication requirements, which include both meeting and report writing, presentation and client and colleague interaction.

The categories show overlapping connections between them, which means they do not function as separate categories. Medical students need English language skills to complete their academic studies through EAP and to succeed in their future medical practice through

EOP. Medical students must take ESP courses, which will provide them with academic language skills and professional language skills.

1.3. ESP in Medical and Dental Education

1.3.1. English for Medical Purposes (EMP)

English for Medical Purposes establishes itself as a separate speciality within English for Specific Purposes, which provides medical professionals and students with specialised English language instruction. The internationalisation of medical education and practice, together with the dominance of English in medical research and publication and the rising movement of healthcare professionals between countries, have led to substantial growth in the importance of EMP during the past three decades (Hwang & Lin, 2010). Medical English contains multiple unique features that distinguish it from other forms of English.

Medical English requires specific vocabulary, which includes Latin and Greek-derived anatomical terms and disease names, pharmacological terms and descriptions of medical procedures as its first requirement. Medical professionals use nominal compounds and noun phrases to create precise expressions that allow them to communicate complex concepts. Medical texts use passive voice and nominalisation as tools to establish both professional objectivity and a formal writing style.

Medical professionals communicate through case reports and research articles, patient histories, clinical notes and professional correspondence that each have their own writing standards and communication rules (Skelton & Hobbs, 1999). EMP courses usually teach students different language skills together with various language proficiency skills. Medical textbooks and research articles, clinical guidelines, and patient records require reading skills for their complete understanding.

Writing skills enable the creation of case reports, research papers, clinical notes and professional correspondence. Listening and speaking skills enable students to comprehend lectures and join ward rounds, communicate with patients and colleagues, and present their work at conferences. Medical students and professionals must develop discipline-specific communicative competence, which includes taking patient histories and explaining diagnoses and treatments and joining clinical case discussions about medical cases (Boutin, 2010).

1.3.2. English for Dental Purposes

The English for Dental Purposes program represents a distinct part of English for Medical Purposes, which meets the specific language needs of dental students and dentists. Dental English comprises specific elements that dental professionals must study because it shares multiple traits with general medical English, but needs specific requirements that apply to the dental education system and dental practice system.

The field of dentistry employs a specialised vocabulary system that includes terms about oral anatomy, dental procedures, dental materials, dental instruments, oral diseases and conditions, and treatment methods. Through their studies, dental students must master all necessary technical vocabulary, which includes words like "periodontitis", "endodontics", "orthodontics", "prosthodontics" and "maxillofacial". Dental professionals need complete knowledge about all dental instruments, all materials plus all equipment that they use in their dental practice.

Multiple settings use dental communication, which serves to achieve different goals of dental communication.

In academic settings, dental students must read both textbooks and research articles, while they also must understand all lecture content, plus presentation materials and complete all writing tasks, report generation and engage in both discussion activities and seminar events.

The clinical personnel require patient history intake while they demonstrate medical procedures to patients, explain treatment options to patients, share post-operative instructions, and document clinical findings. The professionals have to write case reports while they present their research at conferences and they work together with their colleagues and study English-language professional literature to keep up with their field's latest developments.

The research studies on English for Dental Purposes show less academic work than general medical English research, however researchers have identified major problems that require resolution according to academic research. Students face difficulties because they must learn a large amount of technical vocabulary, which contains complex terms; they must understand the content of academic texts; they must comprehend procedural descriptions; and they must communicate in clinical situations (Ypsilandis, 2012). The results of this study show that dental education needs specific ESP courses that need to be developed for this particular educational requirement.

1.3.3. The Role of English in Dentistry Studies

English language usage has become essential for present-day dental training programs and dental work because it operates as a dual language system in dental education. The majority of dental research that achieves significant impact publishes its findings in English. Researchers who want to share their work with global audiences must use English because all major dental journals publish articles in that language. Dental students and professionals must develop strong English reading and writing skills because those skills enable them to comprehend current research, which they must maintain their dental research and clinical practice.

English provides the primary legal educational resources for the dental field because this language contains the most up-to-date dental field educational materials. Dental schools and organisations deliver their educational content through English, which includes all educational resources, such as textbooks, clinical guidelines, instructional videos and online resources. Students who cannot read English fluently are at a significant disadvantage in accessing these resources and staying current with developments in the field.

The current world requires work candidates to have English language skills for their employment prospects and their professional development. English serves as the primary language for all dental education programmes, including continuing education courses, workshops and conferences. Dental professionals must achieve high English proficiency standards for their international work, comprehensive medical training and international research collaboration. Dental professionals must expect to encounter English-speaking patients and colleagues throughout their professional lifetime, because healthcare systems around the world have become more interconnected.

Students achieve better academic performance through English language skills, which increase their self-confidence. Students can read dental literature. Students can understand English language materials during lecture sessions. Students who can discuss dental topics in English will be ready for their studies and their future professional work. Students who have English language deficiencies will experience learning obstacles, which will prevent them from acquiring knowledge and achieving their academic goals and their professional success.

1.4. Needs Analysis in ESP

1.4.1. Definition of Needs Analysis

The development of an ESP course depends on its NA because this process establishes the core framework which defines ESP language teaching methods according to educational specialists. The NA process enables educators to identify which language requirements a learner needs to fulfil and to create a prioritised list of those requirements according to Richards and Platt. The definition of NA establishes it as a methodical examination process which shows what students require to learn when using the target language. The process establishes the fundamental requirements that educational institutions need to develop their teaching programs and learning materials.

Dudley-Evans and St. John (1998) elaborated on this definition by stating that NA in ESP seeks to establish "what" and "how" of a language course. The what component identifies the language skills, functions and knowledge which students need to succeed in their studies, while the how aspect establishes the most efficient learning and teaching methods for these

components. Assessment needs for NA require both content specification and learner comprehension of learning processes to produce the complete assessment framework.

Hutchinson and Waters (1987) approached NA from a somewhat different angle, which differentiates between target needs and learning needs. The distinction is significant because effective ESP course design must contain two elements, which include end goals and learning processes which help students reach those objectives. The NA framework developed by them offers a complete analysis method which researchers and practitioners have used in ESP research and operational activities.

The process of NA requires organisations to collect data through various data gathering techniques, which require them to obtain information from different data sources. The data collection methods include questionnaires for learners and interviews with learners and stakeholders, authentic texts analysis, target situation communication analysis, observation of target situation tasks and interactions and present-day experts and ESP experts' consultation. The research team examined multiple data sources and methods to create a full understanding of learners' requirements (Long 2005).

1.4.2. Types of Needs

Hutchinson and Waters (1987) provided a widely cited framework for categorising different types of needs in ESP contexts. Their framework distinguishes between target needs and learning needs, with target needs further subdivided into necessities, lacks and wants.

1.4.2.1. Target Needs

Target needs refer to what the learner needs to be able to do in the target situation—that is, the language and skills required for successful performance in the contexts where English will be used. Understanding target needs involves analysing the communicative tasks, situations, and purposes for which learners need English in their academic studies or professional work. This may include reading research articles, writing reports, participating in professional discussions, understanding lectures, or communicating with patients or clients.

1.4.2.1.1. Necessities

Necessities are determined by the demands of the target situation—what the learner has to know to function effectively in that situation. Necessities are objective requirements imposed by the target situation itself. For dental students, necessities might include the ability to read dental textbooks and research articles, understand anatomical and procedural terminology, write clinical case reports, and comprehend lectures on dental topics. These are non-negotiable requirements; without these competencies, students cannot complete their studies or function as dental professionals.

1.4.2.1.2. Lacks

Lacks represent the gap between what learners currently know or can do and what they need to know or be able to do (the necessities). Identifying lacks is essential for designing efficient instruction because it allows educators to focus on what learners require to develop rather than covering material they have already mastered. For example, dental students may have reasonable general English proficiency but lack the specialised vocabulary, genre knowledge, and discourse competence needed for reading dental research articles. The ESP course should then focus on addressing these specific lacks rather than general English development.

1.4.2.1.3. Wants

Wants to describe the educational requirements which learners personally identify as necessary for their academic progress. The subjective nature of wants indicates that learners view their needs differently from the established objectives and recognised gaps between their current abilities and necessary skills. Students may think they need more practice in speaking and oral presentation skills, or they may choose to practice reading comprehension instead. The course motivation of students depends on their understanding of their learning requirements. The learning requirements must be examined together with the existing needs and gaps because students at the start of a course struggle to correctly identify their learning needs.

1.4.2.2. Learning Needs

The learning process requires learners to complete specific activities which they can use to achieve their educational objectives. Learning needs exist because students must complete specific tasks for their educational development. Students need to finish their essential learning activities, which begin with the first learning activities of their learning process. The learning needs of students include their preferred learning methods, their current knowledge and skills, their attitude toward learning, the existing resources and limitations and the teaching techniques that work best for this particular student group in this specific teaching setting.

Hutchinson and Waters (1987) stated that successful ESP course development needs to fulfil both target requirements and learning requirements. Learner requirements become complete only after educators learn which methods students should use to accomplish their objectives. Learning NA might explore questions such as: What do learners already know that can be built upon? What learning styles do they prefer? What motivates them? What previous experiences have they had with English learning? What resources are available? How much time is available for the course? The answers to these questions are crucial for designing instruction that is not only relevant and focused but also pedagogically effective and realistic.

1.5. ESP Course Design

1.5.1. Principles of ESP Course Design

The process of designing an ESP course systematically transforms NA findings into an organised educational program. Hutchinson and Waters (1987) defined course design as "the process by which the raw data about a learning need is interpreted to produce an integrated series of teaching-learning experiences, whose ultimate aim is to lead the learners to a particular state of knowledge" (p. 65). Course design interprets learning data through NA, which creates teaching systems for student learning development.

The design of an ESP course needs to follow specific fundamental principles. The course needs to base its content on identified learner needs while using those needs to create specific learning targets, which will guide assessment and content delivery. The course needs to demonstrate how each component directly supports the actual requirements of the students. The course needs to include real-world elements through its use of authentic materials and tasks which demonstrate how English functions in actual usage scenarios. Students discover how their studies relate to their future professional activities when they study authentic materials which create a real-world context.

The integration of language and content forms the foundation of ESP courses because language acquisition occurs most effectively when students use the language to learn new information. ESP instruction should motivate students to study their language through actual content which relates to their professional field. The course needs to concentrate on developing specific language abilities which students need for their professional development through reading, writing, listening, and speaking activities. The course needs to centre its design on students because it should take into account their already acquired knowledge, their preferred learning methods, and their motivation to learn.

1.5.2. Relationship between Needs Analysis and Course Design

The process of course design in ESP pedagogy depends on NA because both elements function as interconnected components. The course design process uses needs analysis to establish educational requirements, which determine what needs to be taught. The NA results guide all later decisions about the objectives, content materials, teaching methods and assessment processes. Course design requires NA to establish its direction because it needs evidence-based data about learner requirements instead of assumptions.

Graves (2000) proposed a systematic framework for course development that illustrates the relationship between NA and other components of course design. The framework contains six elements, which begin with needs assessment before proceeding to goal and objective formulation, content conceptualisation, course organisation, assessment design and course

evaluation. The needs assessment functions as the initial element which establishes all subsequent elements. However, Graves emphasised that course development is not strictly linear; course designers may need to revisit and revise earlier decisions as they work through subsequent stages, creating a cyclical and iterative process.

The objectives derived from NA create a connection between analysis and design because they transform needs into specific learning outcomes which can be achieved. The objectives establish content selection (what will be taught), organisation (in what sequence and structure), methodology (how it will be taught), and assessment (how achievement will be measured) procedures. The course designer needs to consider various factors, which include learner needs and institutional limitations, available resources, teaching principles, and practical implementation. Effective ESP course design requires not only understanding learners' needs but also the skill and judgment to translate this understanding into workable, effective instruction.

Conclusion

The current chapter presents a thorough analysis of both theoretical frameworks and empirical research findings, which are essential to the NA and ESP course design study for dentistry students.

The review has documented the historical development of ESP through its defining characteristics and various types, and it has studied the particular requirements of English for Medical and Dental Purposes while demonstrating that NA functions as the core element of ESP instruction.

The literature demonstrates that NA serves as the essential component which enables effective ESP course design because it provides the empirical basis for developing course objectives, selecting course content, teaching methods and learning materials. The next chapter will explain the research methodology which the study employed to conduct NA research on dental students at Ghardaia University and to study how this research can be used to create an effective ESP curriculum for the specific educational setting.

Chapter Two:
Research Methodology

Introduction

The chapter presents the research methods which the study used to determine how NA affects the development of an ESP course for dentistry students at Ghardaia University. The section provides a complete research design, which includes sampling methods, data collection tools and data analysis techniques. The chapter establishes research validity and reliability through its examination of ethical issues which protect study results from being treated as credible research findings.

2.1. Research Design and Approach

The research study uses a mixed-methods research design, which combines both quantitative and qualitative methods to achieve a complete investigation of the research problem. Mixed-methods research is especially suitable for NA studies because it enables researchers to use multiple data sources and methods for triangulation purposes, which leads to more accurate study results (Creswell, 2014). The quantitative component provides statistical data on the prevalence and distribution of needs and difficulties among the student population, while the qualitative component presents comprehensive contextual details about the students and teachers who participated in the study.

The research project employs both exploratory and descriptive research methods. The study investigates specific needs and difficulties of dentistry students in ESP learning because this phenomenon has not been studied in this particular context. The research describes data through systematic documentation of observed characteristics and relationship patterns without establishing causal links between variables or testing specific theoretical models.

The study can also be characterised as a case study, which focuses specifically on dentistry students at Ghardaia University during the academic year 2025-2026. Case study research allows for in-depth investigation of a particular phenomenon within its real-world context, which results in a detailed understanding that other research designs cannot achieve (Yin, 2014). The study results apply to this specific case; however they hold value for similar contexts, and they help advance knowledge about ESP in dental education.

2.2. Population and Sample**2.2.1. Dentistry Students at Ghardaia University**

The research focuses on dentistry students who are presently studying at Ghardaia University. The Doctor of Dental Surgery programme at Ghardaia University Department of Dentistry provides students with an extensive educational path to complete their doctoral degree. The programme provides students with knowledge about human body systems through anatomy and physiology, pathology and pharmacology and all clinical disciplines, which include oral surgery and orthodontics, periodontics, and prosthodontics. Some courses

use English as their teaching language, while students use English to access both international research and professional literature in their studies.

The study selected a sample of first- and second-year dentistry students through purposive sampling. Researchers use purposive sampling to select study participants according to their particular research-focused characteristics, which do not depend on random sampling methods (Palinkas et al., 2015). The selection criteria required candidates to be active dentistry students who had previously studied English through English-medium instruction or English-language materials while conducting research.

The study collected data from 39 dentistry students from the first and second academic years to obtain viewpoints from both year groups. The sample contains different educational backgrounds, which helps researchers understand how dentistry students experience their studies at different levels of English proficiency, from beginners who first learn English to those who have completed one year of dental study.

2.2.2. ESP Teachers

The study includes students and ESP teachers who have taught English medical courses at Ghardaia University. The teachers provide educational expertise by observing students' needs and learning difficulties, and their problems with ESP instruction, and they present their suggestions for ESP course improvements. The researchers selected ESP teachers through purposive sampling who had taught ESP to health sciences students from different educational backgrounds. The final sample consisted of 17 ESP teachers with varying levels of teaching experience and educational backgrounds. The diverse group of participants enables researchers to understand various perspectives about ESP teaching and the requirements of dentistry students.

2.3. Research Instruments

2.3.1. Questionnaire for Dentistry Students

The researchers conducted their study through structured questionnaire data, which served as their primary tool to gather information about dentistry students. The researchers used questionnaires for their NA research because the method enables them to collect data from many participants while conducting both quantitative and qualitative research analysis (Dörnyei, 2003). The student questionnaire contains multiple sections that assess different aspects of students' ESP requirements and their educational experiences.

The first section collects demographic information, which includes age, gender, year of study and self-assessed English proficiency level. The second section investigates how students feel about English and how they believe it affects their dental education and career development. The third section investigates students' specific language needs by asking them

to select which language tasks and activities they require for their studies and which tasks they find most essential.

The fourth section examines the challenges students experience when they have to use English for their dental education. The fifth section collects data about students' learning preferences, their preferred teaching methods, and their ideas for enhancing ESP educational services. The questionnaire uses both closed-ended questions and open-ended questions as its main question types.

Closed-ended questions, which include multiple-choice items and Likert-scale items, generate quantitative data which can be analysed to identify statistical patterns and trends. Open-ended questions require students to provide their detailed experiences about their needs and suggestions, which results in valuable qualitative data. Researchers can use the mixed method to study all students while also obtaining detailed knowledge about individual student experiences and viewpoints.

2.3.2. Questionnaire for Teachers / Department Staff

The ESP teacher questionnaire was created as an extra tool to gather data about student needs and ESP services which exist at the present time. The survey examines how teachers perceive students' English requirements while also identifying the main obstacles students face during their ESP studies, the difficulties teachers experience when they teach ESP, and the current teaching methods and materials which teachers use, and the improvements teachers suggest for ESP courses designed for dentistry students.

The teacher questionnaire uses the same question types as the student questionnaire by combining closed-ended questions with open-ended questions to collect both quantitative data and qualitative data. Teachers need to evaluate the significance of different linguistic skills for dental students, while they must identify common student difficulties and describe their educational approach together with their teaching resources, and share their top recommendations based on their professional knowledge. The instrument delivers essential information about ESP teaching methods, which enables researchers to evaluate student questionnaire results against the gathered data.

2.3.3. Classroom Observation

The researchers conducted classroom observations to collect real proof of classroom activities, which they used to enhance their questionnaire outcomes from ESP and content classes that used English as the primary teaching language. Educators can observe actual educational activities through classroom observation, which reveals how students perform their schoolwork and their language usage during classroom time and their study challenges in daily academic work (Wragg, 2012).

The observation team applied a semi-structured observation protocol, which required them to study multiple aspects, including lesson language requirements, which consisted of vocabulary and structures and discourse types and student understanding and active participation and English language usage which happened between students and teachers and between students and teachers and the particular challenges which students faced and the specific teaching methods and materials which educators used.

Researchers gathered field notes during the observation period to document all events that occurred, while they included their interpretive notes, which explained student assessment needs and educational system performance evaluation.

The researchers established methodological triangulation through their use of questionnaires and observations, which enabled them to validate their research results by applying various methods that provided deep insight into the research problem. The questionnaires collect self-reported data from students and teachers about educational needs and problems, which they both view as vital, while observations show real classroom activities, which may not match how students and teachers understand or plan to do their work.

2.4. Validity and Reliability of the Research Instruments

The research instruments require validation and reliability testing to establish their credibility for generating trustworthy research outcomes. The validity of an instrument determines its ability to measure the intended construct, whereas its reliability assesses the measurement results, which should remain consistent throughout testing (Dörnyei, 2007). The research team implemented multiple measures to increase the validity of their questionnaires.

First, the research team created questionnaire items after they completed a comprehensive literature study, which covered ESP needs assessment and English usage in the Medical/Dental fields to identify essential ESP requirements and educational goals. The research team used established questionnaire items from the ESP assessment process to obtain feedback from experienced practitioners and researchers about the items' assessment coverage and their ability to identify clear, relevant content. The research team conducted a pilot testing process, which involved dentistry students and teachers to discover which questionnaire items needed modification because they contained elements of doubt or difficulty in comprehension.

The researchers achieved reliability through their methodical approach to designing and administering the questionnaires. The study provided participants with straightforward guidelines, while our study used direct and clear language to question participants under identical testing conditions. The researchers developed observation standards which enabled

them to conduct precise observation procedures during all classroom visits of their research study.

The research findings achieve their complete validity through the three data collection methods, which include student and teacher questionnaires as well as classroom observation data. The research scientists establish greater confidence in their results when they observe a match between different research techniques and sources.

2.5. Data Collection Procedures

The research study collected its data throughout the entire academic period that spanned from 2025 to 2026. The process required getting permission from both the university administration and the Department of Dentistry before starting the study. The research team approached possible study participants after they received study approvals to explain the study objectives and their rights to choose participation while protecting their confidentiality and anonymity. The student questionnaire distribution took place through two methods, which included paper-based distribution during classroom sessions and electronic distribution through email and online platforms to contact students who were not present during classroom time.

Students received sufficient time for questionnaire completion, which lasted between 20 and 30 minutes, while they needed to answer all questionnaire items according to their honest and careful judgment. Students could ask the researcher any questionnaire item questions they wanted to have answered. The researcher sent the teacher questionnaire to ESP teachers through both email distribution and face-to-face distribution. The teachers received permission to choose their questionnaire completion time and location, which considered their need for flexible scheduling.

The research team sent follow-up messages to participants, which resulted in increased questionnaire participation rates. The informal discussions that some teachers took part in offered extra information which explained their questionnaire answers. The classroom observation schedule followed teacher availability, which enabled the research team to observe teaching and learning activities throughout all scheduled times. The research team spent approximately one hour observing each session.

The researcher took on the role of a non-participating observer in the classroom by sitting at the back while he documented notes on his laptop and in his notebook. The researcher aimed to remain as hidden as possible from the class so his presence would not disrupt normal classroom activities.

2.6. Ethical Considerations

The research team studied ethical aspects throughout their research work. The research team explained the study's objectives and methods to all participants before they decided to join the research. The study allowed participants to decide whether to participate, and they were told about their ability to leave the study at any moment without facing negative consequences. It obtained written and verbal permission from every participant who took part in the study.

The research team protected all participant details while keeping their full identity protection, which resulted in their research work. The questionnaires collected data without obtaining any personal information, and participants received identification codes, which were used to conduct data analysis. The research team used anonymised quotes and examples to present their findings in order to protect the identity of specific participants. The researcher and supervisor were the only two people who had access to the securely stored data. The research team explained to participants how their data would be used, and they informed participants that research results would be shared only as aggregated data or with proper anonymisation methods.

The research team obtained permission from both teachers and students before conducting classroom observations. The research team explained that their observation would analyse ESP teaching methods, which required evaluating those educational practices. The observation notes documented the overall patterns and problems which existed in the situation without naming or judging particular people.

Conclusion

The research methods section of the chapter describes mixed-methods design together with its sampling techniques and data collection tools, which researchers use to assess research validity and reliability and research ethical standards. The combination of student and teacher questionnaires, along with classroom observations, provides a comprehensive approach to understanding the ESP needs and difficulties of dentistry students at Ghardaia University. The upcoming chapter will display research results which were obtained through research tools and will present an in-depth examination of the data which researchers gathered from students and teachers, and classroom observations.

Chapter Three:
Data Analysis and Results

The complete research results from the data collection instruments described in Chapter Two appear in this chapter. The analysis is divided into three sections, which match the three research instruments used in the study: the students' questionnaire (N=39), the teachers' questionnaire (N=17), and classroom observations (N=3).

The quantitative data from the questionnaires receives presentation through descriptive statistics, which show frequencies and percentages and mean scores. Fourteen tables and nine figures provide a visual representation of patterns and trends which can be easily understood. Thematic analysis of qualitative data from open-ended responses and observations results in presentation through representative quotations.

The English language needs and difficulties of dentistry students at Ghardaia University receive complete understanding through data triangulation, which combines student data and teacher data, and direct classroom observation. The study results create an empirical base which will be used to answer research questions, while Chapter Four will present the research results and recommendations.

3.1 Analysis of Students' Questionnaire

During the 2025-2026 academic period, the university dental program distributed its student questionnaire to first- and second-year dentistry students. Total study participation was achieved when 39 students turned in their finished questionnaires. Researchers can establish the complete language requirements and language difficulties that exist in the student body because every student participated in the research.

Respondents must complete 23 questions from the questionnaire, which consists of five sections that include background details and English attitude assessment, language requirements and ESP learning difficulties, and learning style choice evaluation. The subsequent sections contain thorough examinations of every section in the document.

3.1.1 Students' Background Information

This section presents the demographic profile of participants, including age, gender, year of study, and self-assessed English proficiency. Understanding these characteristics is essential for contextualising the NA and informing course design decisions.

Age Distribution

The age distribution reflects the typical demographic composition of Algerian dental programs. Table 3.1 presents the complete age distribution.

Table 3.1: Age Distribution of Participants (N=39)

Age Group	Number of Students	Percentage
18-20	13	33.3%
21-23	18	46.2%
24-26	5	12.8%
27+	3	7.7%

Age range distribution as indicated on Table 3.1 reveals that the highest number of students is from the age range 21-23 years with 18 students constituting 46.2 percent of the total number, while there are 13 students within the age range 18-20 years constituting 33.3 percent, 5 students within the age range 24-26 years constituting 12.8 percent, and three students within the age range 27+ years constituting 7.7 percent. The majority of the students join dental courses shortly after completing secondary education, as indicated by the age range distribution, revealing that most of the students come from young ages. The age range profile helps in identifying the learners as digital natives, and hence materials and methods selected for ESP are dependent on it..

Gender Distribution

Table 3.2: Gender Distribution of Participants (N=39)

Gender	Number of Students	Percentage
Female	25	64.1%
Male	14	35.9%
Total	39	100.0%

Table 3.2 shows 25 female students (64.1%) and 14 male students (35.9%). The majority of female students at this university matches the national pattern, which shows rising numbers of Algerian women who select medical and dental fields as their study areas. The gender balance guarantees that the NA will obtain input from both male and female students who might have different learning preferences and confidence levels.

Year of Study Distribution

Table 3.3: Distribution by Year of Study (N=39)

Year of Study	Number of Students	Percentage
1st Year	22	56.4%

2nd Year	17	43.6%
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The distribution in Table 3.3 shows the student enrollment for the two academic years as follows: 1st year (22 students, 56.4%) and 2nd year (17 students, 43.6%). The NA methodology serves to collect educational stage perspectives from both student groups who are in the foundational stages of their dental studies and require targeted English language support. The distribution reflects the actual enrollment figures for the first two years of the programme at the time of data collection.

Self-Assessed English Proficiency

Table 3.4: Self-Assessed English Proficiency Levels (N=39)

Proficiency Level	Number of Students	Percentage
Beginner	3	7.7%
Pre-intermediate	5	12.8%
Intermediate	20	51.3%
Upper-intermediate	10	25.6%
Advanced	1	2.6%

The proficiency distribution is shown in Table 3.4. The largest group, 20 students (51.3%), rated themselves at the intermediate level, which was followed by 10 students (25.6%) at the upper-intermediate level, 5 students (12.8%) at the pre-intermediate level, and 3 students (7.7%) at the beginner level, and only 1 student (2.6%) at the advanced level.

Most participants in the study possess basic to moderate English skills according to the intermediate-level student majority, which shows they can understand familiar topics and simple texts, but they struggle with complex academic discourse and specialised terminology.

The very small number of advanced students (2.6%, n=1) demonstrates that dentistry students rarely achieve high proficiency before completing several years of study.

The distribution needs to be investigated because it affects ESP course design by requiring educators to teach intermediate-level skills while they interact with students who possess different proficiency levels. The data indicate that educators need to provide differentiated instructional methods together with scaffolded materials which help students progress from beginner to upper-intermediate proficiency levels.

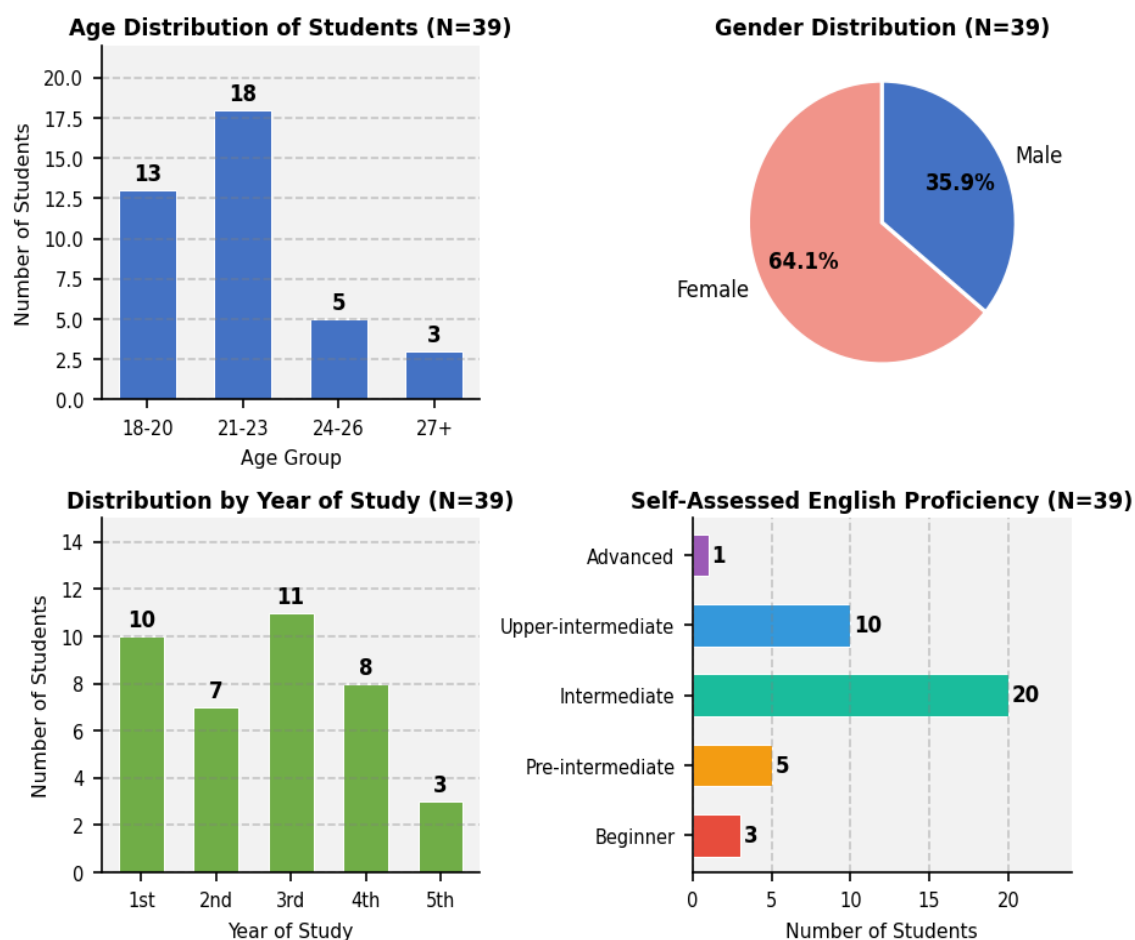


Figure 3.1: Student Demographics Overview (Age, Gender, Year, Proficiency)

The visual representation in Figure 3.1 shows demographic data which includes information about age distribution, gender balance and year-level representation, and proficiency levels. The student body demographic profile shows that students from different backgrounds who are young and mostly female attend all program years, while their English skills show intermediate proficiency. The profile establishes the basis for understanding needs and challenges, which will be addressed in the upcoming sections.

3.1.2 Students' Attitudes toward English

The section studies how students feel about English for dental purposes because it assesses their belief in its importance, their drive to learn, and their ability to speak English. The success of language learning depends on attitudes because they determine how much effort students will put into learning activities, how long they will keep studying, and how they will handle their learning activities.

Perceived Importance of English

Students evaluated the significance of English for their dental studies through a five-point scale, which ranged from "not important" to "very important. The responses distribution appears in Table 3.5.

Table 3.5: Perceived Importance of English for Dental Studies (N=39)

Importance Level	Number of Students	Percentage
Very important	22	56.4%
Important	13	33.3%
Moderately important	4	10.3%
Slightly important	0	0.0%
Not important	0	0.0%
Combined Important/Very Important	35	89.7%

The data from Table 3.5 shows that people believe English language proficiency holds great importance. Between two English proficiency assessment levels, the students selected "very important" by 22 students (56.4%) and "important" by 13 students (33.3%), which means 35 students (89.7%) view English as required for their dental studies. The students assigned "moderately important" status to the item in 4 cases (10.3%) while no student considered the item to hold "slightly important" or "not important" status.

The 89.7% of students who recognise English as essential for their studies show their understanding of how this language helps them access dental literature and research materials while they prepare for their future professional work. Students identified various reasons to explain why they regard English as essential through their multiple-choice responses which included reading dental textbooks and research articles (78% of participants) accessing online dental resources (73%) understanding dental terminology (69%) future career opportunities (64%) pursuing postgraduate studies abroad (58%) communicating with international colleagues (52%) and attending international conferences (47%).

"We need more dental-specific vocabulary exercises and real dental texts, not general English."

Motivation to Improve English

While recognising the importance is necessary, motivation to actively improve is what drives learning behaviour. Students rated their motivation on a five-point scale from "not motivated" to "very motivated".

Table 3.6: Motivation to Improve English for Dental Purposes (N=39)

Motivation Level	Number of Students	Percentage
Very motivated	13	33.3%
Motivated	16	41.0%
Moderately motivated	7	17.9%
Slightly motivated	1	2.6%
Not motivated	2	5.1%
Combined Motivated/Very Motivated	29	74.4%

The data in Table 3.6 shows that students keep their motivation at high levels. 13 students (33.3%) reported being "very motivated", and 16 students (41.0%) reported being "motivated," for a combined total of 29 students (74.4%) who are motivated or very motivated to improve their English. 7 students (17.9%) demonstrated moderate motivation, whereas 1 student (2.6%) showed slight motivation and 2 students (5.1%) showed no motivation.

The high motivation levels (74.4%) match the high importance ratings (89.7%), which shows that students who understand the value of English tend to show motivation for their studies. The motivation percentage shows a decrease from the importance rating because approximately 15.3 percentage points separate those who consider English important (89.7%) from those who are motivated to improve it (74.4%). Students need to balance their different priorities, which results in them facing challenges to develop their study skills because they have limited time.

Confidence in Using English

While importance recognition and motivation are crucial, confidence in actual language use is equally important for successful communication. Low confidence can inhibit willingness to communicate even when proficiency exists. Students rated their confidence using English in dental studies on a five-point scale.

Table 3.7: Confidence in Using English for Dental Studies (N=39)

Confidence Level	Number of Students	Percentage
Very confident	2	7.7%
Confident	3	10.3%
Moderately confident	10	38.5%
Slightly confident	10	25.6%
Not confident	7	17.9%
Combined Confident/Very Confident	7	17.9%

The study results show that participants had lower confidence levels than they showed in their importance and motivational levels. Out of 39 students, only 2 students (7.7%) reached the "very confident" level, while 3 students (10.3%) achieved the "confident" level, which resulted in only 5 students (17.9%) who showed confidence or very confidence in their English skills for dental studies.

Most students demonstrated low to moderate confidence levels, which included 10 students (38.5%) who reported "moderately confident" status, 10 students (25.6%) who reported "slightly confident" status and 7 students (17.9%) who reported "not confident" status. The dominant moderate confidence level of 38.5% shows that students can complete their already known tasks, but they need to build more confidence for their advanced academic work.

The Motivation-Confidence Gap: A Critical Finding

Comparing motivation and confidence reveals a striking disparity: while 74.4% of students are motivated or very motivated to improve their English, only 17.9% feel confident or very confident in using it—a gap of 56 percentage points. Table 3.8 directly compares these attitudes.

Table 3.8: Comparison of Importance, Motivation, and Confidence (N=39)

Attitude Dimension	Number	Percentage
Rate as Important/Very Important	35	89.7%
Are Motivated/Very Motivated	29	74.4%
Are Confident/Very Confident	7	17.9%
Motivation-Confidence Gap	56 points	—

Table 3.8 data shows how students fail to bridge their motivation gap with their confidence level. The 56-point difference between the two groups has major significance for designing ESP courses. The assessment shows students:

1. English is important to them, and they want to improve their English skills (high importance and motivation)
2. They currently feel uncertain about their English language skills (low confidence)
3. They know the material, but they will not speak because they lack confidence (confidence barrier)
4. Learning spaces must help students build their confidence while developing their skills.

ESP instruction should focus on confidence-building through specific teaching practices, which include. The students will complete tasks which they can handle to achieve success. The students should have multiple chances to practice in environments where they can make mistakes without judgment. The classroom space should maintain an environment which helps students understand that making mistakes is essential for their academic growth. Students will receive both immediate objectives and future targets which they can accomplish. Students should receive continuous positive feedback which demonstrates their advancement and development.

The motivation-confidence gap presents educational institutions with their most difficult task, which simultaneously creates new possibilities for achievement. Students with high motivation will dedicate their efforts when they find instruction designed to enhance their confidence through activities which provide proper challenges and sufficient guidance.

Figure 3.2: Student Attitudes toward English (Importance, Motivation, Confidence)

The diagram shows how student attitudes develop through educational progress by demonstrating that students value educational content highly, while showing strong motivation to learn, however they display lower confidence in their abilities. The figure establishes an immediate visual difference between motivation and confidence levels, which highlights essential research findings that should guide decisions about designing ESP courses.

3.1.3 Students' Language Needs

The section investigates students' language requirements through two methods that assess how frequently students must carry out different language tasks and how important language skills are considered to be. The combined frequency and importance assessments create a complete understanding of the requirements needed to design the course.

Frequency of Language Tasks

Students used a five-point scale 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Very Often to evaluate their need for 11 English language tasks, which they required for their dental studies. The average scores for each task are shown in Table 3.9, which presents the task performance results from the most common activity to the least common activity.

Table 3.9: Frequency of Language Tasks (N=39, Scale: 1-5)

Rank	Language Task	Mean Frequency
1	Reading online dental resources/databases	3.82
2	Watching educational videos/demonstrations	3.69
3	Reading research articles/journals	3.62
4	Taking notes during lectures/reading	3.59
5	Reading dental textbooks/reference books	3.38
6	Writing assignments/reports	3.15
7	Participating in class discussions	3.13
8	Listening to lectures in English	3.08
9	Communicating with peers in English	2.97
10	Giving presentations	2.72
11	Writing case reports/documentation	2.67

The patterns of task execution become evident through the data from Table 3.9. The students practice their most frequent activities through receptive activities, which include both reading and listening.

1. Students read online dental resources/databases with a frequency of 3.82. This task represents the most common activity because students today access online resources, databases and websites for research purposes.

2. Students watch educational videos/demonstrations with a frequency of 3.69. The use of video resources for studying procedures and concepts reflects the multimedia-rich nature of modern dental education.

3. Students read research articles/journals with a frequency of 3.62. The high frequency shows that students maintain regular reading patterns for scientific literature, which they use to complete their academic work and to remain updated on dental research developments.

4. Students take notes during lectures/reading with a frequency of 3.59. This active note-taking behaviour reflects students' awareness of the need to record technical content for later review.

The middle-frequency tasks (M=3.00-3.50) include: • Reading dental textbooks/reference books (M=3.38) • Writing assignments/reports (M=3.15) • Participating in class discussions (M=3.13) • Listening to lectures in English (M=3.08) • Communicating with peers in English (M=2.97)

The least frequent tasks are oral and clinical production activities • Students communicate with peers in English with a frequency of 2.97 • Students give presentations with a frequency of 2.72 • Students write case reports/documentation with a frequency of 2.67

The pattern shows that students use receptive skills, which include reading and listening, more frequently than they use productive skills, which include writing and speaking. The students prefer reading because they achieve better results from reading tasks, which have means above 3.50, compared to speaking and peer communication tasks, which have means below 3.00. The designers of ESP courses should develop their course structure according to frequency data because instructors require extended time to teach high-frequency tasks, while they must also deliver instruction on essential skills contained in less common tasks.

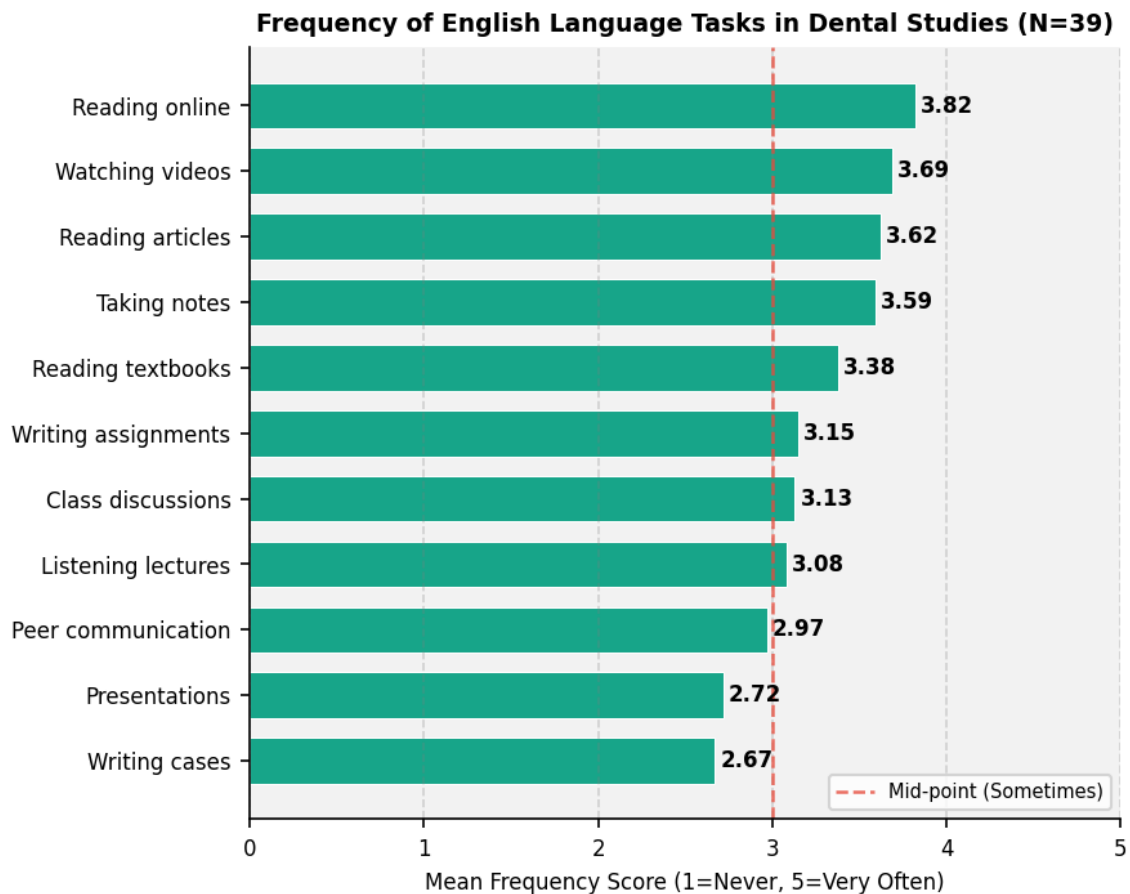


Figure 3.3: Frequency of Language Tasks (Mean Scores)

Importance of Language Skills

Students show their current activities through task frequency, while their perceived importance shows the activities they consider essential for their studies. Students rated the importance of seven language skills for their dental studies on a five-point scale (1=Not Important, 2=Slightly Important, 3=Moderately Important, 4=Important, 5=Very Important). The table shows average importance ratings, which display the ranking order from most important to least important.

Table 3.10: Importance of Language Skills for Dental Studies (N=39)

Rank	Language Skill	Mean Importance	% Rating Important/Very Important
1	Vocabulary knowledge	4.31	89.7%

2	Reading comprehension	4.13	74.4%
3	Listening comprehension	3.92	71.8%
4	Writing skills	3.90	69.2%
5	Grammar accuracy	3.41	56.4%
6	Speaking skills	3.36	51.3%
7	Pronunciation	3.28	46.2%

Table 3.10 displays the ranking of skills according to how their importance is perceived by people. The top two skills are:

1. Vocabulary knowledge received the highest rating (M=4.31, 89.7% rate as important/very important), reflecting students' awareness that technical dental vocabulary is the primary barrier to comprehension. Reading comprehension followed closely (M=4.13, 74.4% rate as important/very important), confirming that reading functions as the main mode of study for dental students.

2. Dental professionals need reading and vocabulary knowledge to learn technical vocabulary, which exists at the same level for both reading and vocabulary knowledge in the dental field.

Students consider reading and vocabulary as interconnected because their scores for both skills show no difference. Students learn to read through their vocabulary knowledge, while their reading abilities improve through vocabulary development. The discovery supports ESP research, which shows vocabulary functions as the basic requirement for students to achieve disciplinary literacy.

The middle-importance skills include:

- Listening comprehension (M=3.92, 71.8%) - Important for understanding lectures and videos
- Writing skills (M=3.90, 69.2%) - Needed for assignments and case reports
- Speaking skills (M=3.36, 51.3%) - Important but rated lower than receptive skills

The lowest-rated skills are:

- Grammar accuracy (M=3.41, 56.4%)
- Pronunciation (M=3.28, 46.2%)

The skills which received low ratings still show means above 3.0, which demonstrates that people consider all skills to have moderate value at a minimum. The skills importance ranking shows a close relationship with task frequency patterns because high reading importance ratings correspond to frequently performed reading tasks.

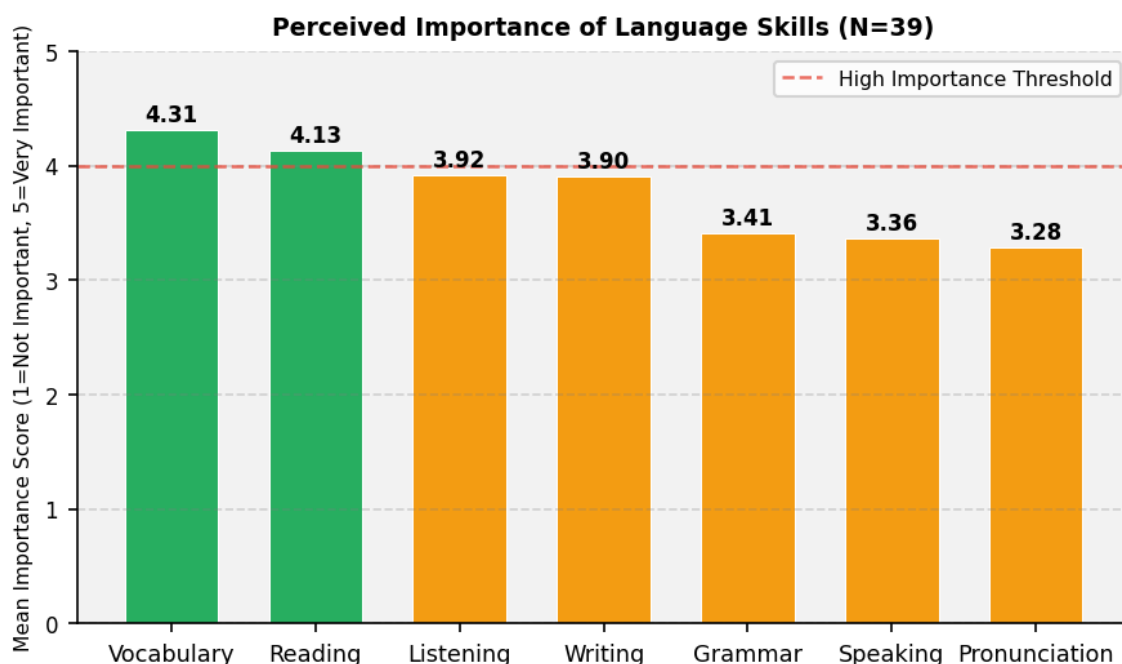


Figure 3.4: Importance of Language Skills (Mean Scores)

Skills Students Want to Improve

The students needed to select one language area that required the most improvement for dental study purposes. The question, which required students to choose between two options, showed their most important skill development needs. Table 3.11 shows how people responded to different options.

Table 3.11: Language Skill Needing Most Improvement (N=39)

Skill	Number of Students	Percentage
Vocabulary	10	25.6%
Speaking	9	23.1%

Writing	8	20.5%
Reading	7	17.9%
Listening	4	10.3%
Grammar	1	2.6%

The table shows that vocabulary needs the most enhancement according to 10 students who represent 25.6% of the total. Speaking was ranked second by 9 students (23.1%), while writing was chosen by 8 students (20.5%). Students demonstrate awareness of their speaking limitations through their assessment of their skills, which they use less often than other abilities.

The students who needed reading skills represented 17.9% of the total (7 students), while 4 students (10.3%) needed listening skills and only 1 student (2.6%) needed grammar improvement. 23.1% of the total student population requires speaking skills improvement, even though the skill is ranked as less important than vocabulary according to students. One student commented:

"The teacher is competent but doesn't know dental terminology, so we can't ask specific questions about our field."

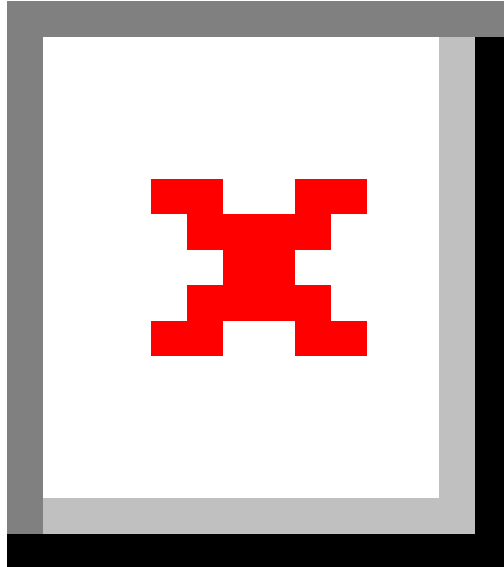


Figure 3.5: Language Skills Students Want to Improve

The language NA identifies two primary goals, which are reading and vocabulary skills emerge as the most essential abilities according to their usage frequency and importance rating. Students recognise speaking as their major skill area, which needs improvement, even though its usage and importance ratings remain lower than those of other skills. The comprehensive needs assessment, which combines students' most common activities with their most valued competencies and their desired areas of growth, establishes a strong foundation for creating ESP courses which meet both essential learning requirements and student development goals.

3.2 Analysis of Teachers' Questionnaire

The questionnaire was handed out to the 17 ESP teachers from Ghardaia University teaching dental students. In total, 17 completed questionnaires were returned, resulting in 100% response rate from all ESP teachers at Ghardaia University. Teachers' opinions provide a professional point of view regarding the needs of students and difficulties they have, thus complementing the information collected from students in Section 3.1.

When it comes to the main skills needed by the students, 58.8% (n=10) of teachers considered reading to be the most important one, followed by vocabulary (35.3%, n=6), whereas only 5.9% (n=1) chose writing as a key area of competence to develop in English for dentistry purposes. It seems quite logical since, among other areas, dental terminology and reading comprehension skills are essential for dental practice. Moreover, the results are confirmed by data obtained through interviewing students, since the majority (with M=4.31 and M=4.13, respectively) considered reading comprehension and vocabulary to be their strongest language skills.

When it comes to the main obstacles for dentistry students' ESP study, limited English proficiency and lack of ability to understand technical vocabulary were listed first by teachers. In addition, difficulty in using adequate reading strategies and writing skills were noted as well. Of special importance here is the fact that 76.5% of teachers (n=13) found ESP resources insufficient, and even 35.3% rated them as very insufficient. Thus, the need for additional resources is yet another challenge for students.

Speaking about curriculum adequacy, 82.4% (n=14) teachers admitted that existing ESP courses do not adequately correspond to the needs of the studied students, with 35.3% claiming that they are definitely inadequate and 47.1% – probably inadequate. Only 17.6% teachers were undecided about the situation, whereas no one thought the existing ESP curricula were satisfactory. However, all the 17 interviewed teachers (100%) agreed that a specialised ESP curriculum should be developed.

3.3 Analysis of Classroom Observations

Three classroom observations were conducted in ESP classes for dentistry students at Ghardaia University during the 2025 academic year. The observations followed the structured protocol presented in Appendix C and targeted classes across different year groups: a second-year class (38 students) focused on reading comprehension, a first-year class (42 students) focused on vocabulary development, and a second-year class (35 students) focused on

academic writing. The three classes provided a cross-sectional view of ESP instruction across the programme.

The observations revealed consistent patterns in teaching approach. All three classes relied primarily on lecture and explanation as the dominant teaching method, with individual work tasks supplementing the input. Student engagement was rated as moderate in the reading and writing classes, with participation rates between 25% and 49%, while the vocabulary class achieved higher engagement, with a participation rate of 50% to 74%, attributed to the use of multimedia presentations and matching exercises. The contrast between the classes illustrates that task variety and visual aids produce measurable improvements in student participation.

Observable student difficulties included unfamiliarity with technical dental vocabulary across all three classes, with the reading class specifically recording student struggles with terms such as ‘demineralisation’ and complex sentence structures in dental texts. The writing class revealed difficulties with academic conventions and the logical organisation of clinical information. These direct observations corroborate the self-reported difficulties from the student questionnaire and confirm that technical vocabulary and disciplinary writing conventions represent the most pressing areas for instructional intervention.

The observation data also highlighted that authentic materials, including handouts from dental textbooks, sample case reports, and video demonstrations, produced more engaged responses from students compared to general English content. The effective use of authentic texts in all three observed classes supports the student preference data showing strong demand for dental textbook excerpts and videos of dental procedures. The observations therefore provide direct classroom evidence that a materials approach centred on authentic dental content is both appropriate and effective for this learner group.

3.4 Summary of Major Findings

The chapter included an extensive examination of data which was collected from 39 students, 17 teachers, and 3 classroom observations. The study resulted in its main findings, which the researcher displayed through headings to assist with navigation throughout the document. Research Question 1 (Language Needs): The two top priorities were vocabulary and reading, which received mean scores of 4.31 and 4.13, respectively. Students must read online resources and articles and watch videos as their academic work every day. The students required all four language skills, which included two receptive skills, as their main priority.

Research Question 2 (Difficulties): The main obstacle which students face is remembering technical vocabulary because 66.7% of students report difficulty with this task, according to their average score of 3.82. The 56-point motivation-confidence gap (74.4% motivated vs 17.9% confident) is critical for course design.

Research Question 3 (Course Design Contribution): The specialised curriculum received backing from 89.7% of students who attended the program and all educators who participated in the study. All teachers decided that the current provision should be improved, according to 82.4% of teachers (n=14) who reviewed the existing provision. The needs assessment research analysis establishes an empirical foundation which enables educators to select between vocabulary development and explicit reading strategies, authentic materials and confidence-building activities and teacher training programs.

Everyone who analysed the data found that vocabulary functions as the main barrier which students need to overcome first. Students show strong motivation, but they do not believe in their abilities. The demand for specialised needs-based ESP curriculum exists in strong capacity.

The next chapter interprets these findings in relation to existing literature and provides detailed recommendations for ESP course design.

Chapter Four:
Discussion of Major Findings and
Recommendations

Introduction

The chapter provides an examination of Chapter Three's primary results, which researchers used to answer the study's first research questions and to assess both theoretical and empirical evidence from Chapter One. The chapter is divided into three main sections for its organization. The first section of the report presents research findings which answer the research questions by combining evidence from different data sources.

The second part of the research study analyses results through the framework of existing studies about ESP needs assessment and English for Medical and Dental Purposes. The third section of the report investigates how the study results affect dental students' ESP course design at Ghardaia University. The fourth section of the document offers specific teaching methods which educational professionals and their students can use. The research study acknowledges its limitations while it presents new research pathways for upcoming studies.

4.1. Discussion of Findings in Relation to Research Questions**Research Question 1: What are the specific English language needs of dentistry students at Ghardaia University?**

The research results provide complete information about the English language needs for dentistry students through their students' questionnaire answers, teachers' questionnaire answers and results from classroom observations. Hutchinson and Waters established three categories of student needs in their 1987 framework, which include necessities, lacks and wants. The data shows that reading scientific texts stands as the essential requirement for students who need to perform dental studies. Students demonstrated that they use English-language textbooks, research articles, and online resources as part of their daily study routine. Most dental education literature establishes its authentic situation because English serves as the primary language for authoritative current academic resources.

The understanding of specialized dental terminology emerged as a vital requirement. The main area of need was vocabulary, which both groups of students and teachers recognized. Dental English contains many technical terms that come from Latin and Greek, in addition to specialized names for procedures, materials, instruments and anatomical structures. Students must learn this vocabulary to successfully comprehend reading materials and lectures, participate in discussions, and communicate with patients and colleagues. The finding confirms the earlier research by Maruyama and other researchers who showed that specialized vocabulary in ESP contexts creates difficulties for learners.

Academic writing requirements make writing an essential skill that students need to master for their academic assignments, case reports, and research papers. The students currently need to write extensively in English for their studies, but the teachers observed that writing skills become vital for students who advance their studies and choose research activities or advanced training. Students identified listening comprehension as a requirement to understand English-medium lectures or video materials, although reading and vocabulary carried more importance in their learning process.

The data shows multiple deficiencies that exist between the required competence and current student skills. The students need general English proficiency for dental studies, but many students report that they lack this essential requirement. The specific lacks involve students who need better discipline-specific vocabulary and academic writing skills, and authentic dental discourse proficiency. Students need to develop their reading skills because they must advance from basic comprehension to critical research article analysis. Students require ESP courses because their dental education needs specific English skills that go beyond their general English learning.

The wants of students showed strong agreement with the identified necessities and lacks because students understood their learning requirements and their actual needs. A group of students wished to develop their speaking and oral presentation abilities, which they needed for their future professional communication needs and their future conference activities. Students requested real-world materials and educational materials that show actual usage. The wants of learners should serve as crucial input for course design because educators can boost student learning outcomes by addressing learner motivation and preferences.

Research Question 2: What are the main difficulties faced by dentistry students in their ESP learning experience?

The research results show that dental students face multiple obstacles when they try to learn English for their dental education. The students first need to handle the demanding task of acquiring specialized vocabulary, which is essential for their field of study.

Technical terms tend to have extended lengths and complex pronunciation patterns, which people find difficult to pronounce because they have not yet learned their pronunciation and meaning. Students need to establish their understanding of terms before they can demonstrate correct usage through speaking and writing.

Dental terminology presents students with increased learning difficulties because it requires them to study new terms, which depend on their previous vocabulary learning, which creates difficulties for students who have not yet acquired the necessary vocabulary to

progress in their studies. The students face two major difficulties because they need to learn the dental vocabulary together with the reading norms that dentists use to study dental articles.

Scientific and medical writing uses intricate sentence structures which combine three methods to deliver information: nominalisation and noun phrases, and specific patterns of organisation, such as the IMRAD structure used in research articles. The students who need to understand the conventions report that they lack familiarity with these conventions and face difficulties when they try to process information which is presented through this particular method. Research shows that ESP learners face major difficulties with syntactic challenges, which prevent them from reaching their educational objectives, according to the study conducted by Rezaei, Rahimi, and Talepaskan in 2012.

The educational system faces a major problem because it does not provide the suitable materials needed for effective learning. The students encountered problems because they could not locate the required textbooks, articles and other materials which matched their specific learning requirements and academic level.

Students find it hard to learn from common English textbooks because these materials do not teach relevant information, while authentic dental materials become too complex for students with basic English skills. Teachers reported the problem of not having proper dental ESP materials, which led them to develop their own teaching resources through material creation or existing resource changes. The study demonstrates research findings from Makhoulouf and Arar 2022 which show that Algerian higher education institutions lack proper ESP resources for their educational programs.

The students experience challenges with their motivation and their emotional state toward their studies. The students become overwhelmed by their language requirements because they doubt their chances for academic success. Students who lack confidence in their English skills will avoid class participation, question asking, and interaction with English materials, which creates a negative cycle that hinders their progress. Some students face difficulties because they cannot recognise how English study relates to their academic progress in their current courses, which use mostly Arabic and French instruction to teach students.

The process of teaching faces multiple obstacles because educational spaces need to function as environments which support student learning. The educational space requires students to receive special instruction, through which teaching time becomes restricted because teachers must offer personalised guidance to each student.

The educational program needs more class time because teachers require extended time to teach essential language competencies, together with the needed academic content. Teachers who have received limited ESP training confront obstacles because they lack dental expertise,

which prevents them from creating and teaching specialised educational materials that fulfil dental academic standards. The combination of educational environment problems and teaching method obstacles, together with student learning difficulties, creates a major barrier which prevents students from succeeding in their ESP studies.

Research Question 3: How can NA contribute to designing an effective ESP course for dentistry students at Ghardaia University?

The research results demonstrate that systematic NA serves as an essential requirement for developing effective ESP courses. The NA research provided concrete proof of the actual requirements dental students need to resolve their challenges through effective learning methods.

Course designers use evidence-based foundations to make decisions about every component of the ESP curriculum. The first NA process defines the specific learning outcomes required for the course.

Students need specific objectives which stem from their educational needs because those objectives enable them to develop particular competencies that include skills from reading dental research articles to mastering dental anatomical terms and producing medical documentation-compliant case reports. The specific needs-based objectives establish direct paths for teaching and learning processes while enabling assessment of student progress toward their educational goals.

NA establishes standards which educational institutions follow to select their educational materials. The findings indicate that reading comprehension and vocabulary development should become primary educational goals which dental studies should use to develop writing, listening, and speaking skills. Authentic dental texts and tasks should serve as the central content focus instead of using standard English learning materials. The process of vocabulary instruction should teach students the most commonly used dental terms alongside word-building techniques, which will help them comprehend new dental terms. The approach focuses on essential requirements, which results in optimal usage of limited instructional time because it meets all of the students' real requirements.

The educational system faces a materials shortage, which requires educational institutions to either develop new content or select materials which match their learning needs. The materials will contain dental terminology glossaries which offer simplified dental content to lower-level learners, and writing templates which demonstrate proper dental documentation standards. The selection process for materials requires educational institutions to choose materials which match the proficiency levels of their students while maintaining an authentic connection to dental content.

The NA establishes student requirements together with their challenges, which establishes the benchmarks needed to measure ESP course success. Course redesign depends on the assessment of particular needs and the solution of all existing difficulties. The course design process uses evidence-based methods to create a system which utilizes data for making program improvements.

4.3. Discussion of Findings in Light of the Literature

The research results show a strong connection to existing studies on ESP needs assessment and English for Medical and Dental Purposes, while they also demonstrate specific characteristics that are unique to different contexts. Medical students require reading comprehension skills, according to Hwang and Lin's 2010 research findings, which, however, show that reading skills serve as the most essential academic requirement for students studying English for Specific Purposes. Students who study specialized vocabulary face the same difficulties that research conducted across various ESP research environments has shown, including multiple studies, such as Maruyama's 1996 study about technical vocabulary and Lãm's 2011 investigation into language challenges faced by ESP students.

The research results confirm the major obstacles which students face in their ESP studies, according to Hoa and Mai's 2016 research, because students demonstrate poor English skills and native language usage while facing difficulties with large class sizes and insufficient teaching materials. ESP contexts share common challenges which create existing obstacles that extend beyond their specific environmental features. The community uses this understanding to develop local courses and establish effective ESP teaching methods and educational regulations.

The study results reveal specific aspects which become more evident in the Algerian educational setting. Educational systems face special challenges and opportunities because Arabic, French and English combine their linguistic complexity to create dual language learning environments. Students who studied science in French now have to learn the same material in English, which requires them to learn multiple languages while they establish their understanding of scientific concepts and terminologies. Students face limited opportunities to practice English because the community lacks sufficient English language exposure, which makes classroom instruction and materials essential for their English learning process.

The NA and targeted ESP instruction, which both students and teachers consider important, support Hutchinson and Waters' (1987) essential arguments about the ESP approach. Specialised learners have distinct language needs which require different teaching methods than those used for general English learners. The study presents empirical evidence

which demonstrates that ESP functions as a valid theoretical framework that necessitates NA to operate as the primary research method.

4.3. Implications for ESP Course Design for Dentistry Students

The NA results generate essential outcomes which direct the creation of an ESP program for dentistry students at Ghardaia University. The course needs to dedicate its primary focus to teaching students how to understand and read various texts. Students require organised reading instruction for scientific and medical texts, which should contain direct teaching about text structure patterns that include problem-solution and cause-effect and IMRAD structure, along with methods to understand unknown words and vital reading skills for assessing research assertions. The reading instruction should start with authentic texts which have been slightly simplified and then advance to authentic research articles and clinical literature.

The program must establish vocabulary instruction as a fundamental component which receives ongoing educational emphasis throughout the entire academic period. The vocabulary instruction process should teach dental terminology to students through two methods, which include word family and derivation study and Latin and Greek root study of medical terminology, together with context and word structure analysis for finding word meanings. Vocabulary acquisition needs students to have multiple encounters with terms which appear in various settings while they actively use these terms for critical assignments. The classroom teaching process could be enhanced through the use of digital vocabulary review tools and applications.

Students will receive complete training through the use of authentic dental materials and dental materials which achieve partial authenticity. The materials include research article abstracts and case reports, patient information materials, procedural descriptions and excerpts from dental textbooks. Authentic materials enable students to acquire domain-specific vocabulary and academic standards so they can build motivation through relevant educational content. The materials need careful selection to match the students' current skill level while providing necessary scaffolding and support.

The course design needs to make reading its main priority while also teaching students writing skills, which they will need for both academic and professional contexts. Students need to master paragraph writing, short report writing, clinical case documentation, and research paper development. Writing instruction needs to teach students about how to organise their writing through specific teaching of patterns, discourse markers, and academic writing standards. Writing materials, which include models, templates, and structured feedback, will help students develop their writing skills.

Students need to practise listening and speaking skills through activities which have practical significance for their real-life situations. Dental topic lectures will be used as listening exercises, which include recorded content, video demonstrations of dental procedures, and recordings of patient-dentist conversations. Professional communication training will teach students how to present their case findings, which involves explaining procedures, discussing cases with their colleagues, and presenting their findings. Students can use role-plays and simulations to practice their skills in environments that do not involve any risk.

The course design needs to establish links between students' current dentistry knowledge and the new content they will study in their course. Dentistry students possess advanced knowledge about their field, which creates a distinction between them and general English students. ESP education employs this knowledge because it uses students' already known content to support their language development instead of requiring time for additional content teaching. Students can demonstrate their proficiency through this method while their language proficiency develops through the targeted use of time.

The programme needs to use a range of educational methods which will capture students' interest and maintain their involvement throughout the course. The course requires direct instruction for certain vocabulary and text structure content, but it needs to include collaborative learning, problem-based learning, task-based activities, and independent project work. Different learning methods will help students with different learning preferences while helping them stay focused and providing them options for both supervised and independent study.

4.4. Pedagogical Implications and Recommendations

4.4.1. Recommendations for ESP Teachers

The study results lead to specific recommendations which should be used by teachers who teach English for specific purposes to dental students. The first recommendation requires teachers to conduct ongoing informal assessments of student requirements throughout the entire academic program. The second recommendation requires teachers to spend time creating or selecting high-quality educational materials which are specific to their academic field. Faculty members at dental schools must work together with other faculty members to select educational resources which match their particular dental academic specialisations.

Faculty members at dental schools must select educational resources which will help students learn essential terminology, study materials and extra content. The educators of this program must provide direct instruction about reading methods. The teacher demonstrates scientific text analysis by showing students how to find important points through text

comprehension and research assessment techniques. The instruction provides students with opportunities to practice using these reading methods.

The program should implement organised vocabulary teaching, which includes more than vocabulary lists alone. The program should teach students word construction methods while teaching them the most common words through repeated practice and active usage opportunities. The program should create a learning space which enables students to test their abilities through mistakes while establishing a secure environment. The program should evaluate student progress through student acknowledgement and assessment of student improvement.

The program requires students to connect their language learning activities with their dental study and practice activities. The program requires students to demonstrate how their studies connect to their future professional activities. The dental faculty members need to work together with dental faculty members for three main purposes. The first purpose is to synchronise English for Specific Purposes teaching with dental content instruction.

The second purpose lets faculty members access appropriate teaching materials and professional knowledge. The last purpose helps faculty members understand the academic challenges which their students experience. The educators need to complete both ESP professional development and English for Medical Purposes professional development to build their teaching abilities.

4.4.2. Recommendations for Students

The following recommendations are offered for dentistry students to enhance their ESP learning:

- Students should read English dental material daily to build their dental vocabulary and reading abilities. Students should establish a reading schedule which requires them to watch English dental videos and read dental articles, and access online dental resources.
- Students need to establish regular methods for learning new vocabulary. Students should maintain their vocabulary notebook or digital tools to document and practice new vocabulary. Students should study word families and roots as their main learning method instead of studying individual words.
- Active reading requires readers to demonstrate their understanding through reading. Students should evaluate the text through questioning, make predictions, summarise the main ideas, and evaluate the text's arguments. The active reading strategies enable students to understand more content, which they remember better.
- Students should feel free to use all the resources which are available to them. Students should use dictionaries and consult their teachers and classmates while they search for more

materials. Language learning requires students to use all the support resources which exist to improve their skills.

- Students should practice writing every day by doing all available writing tasks. Students can practice writing through article summaries, which they will read and through English note-taking and learning journal writing. Regular writing practice helps students develop writing skills and boost their confidence.
- Students should look for chances to learn with others. Students should study together with their classmates, read together, and practice explaining concepts in English. Through peer interaction, students gain essential practice time and support.
- Students should treat themselves with kindness because they need to understand that language learning takes time. Students should celebrate their achievements, but they should not let obstacles stop their progress. People who show determination through their continuous work efforts will achieve better improvement.

4.5. Limitations of the Study

The research reveals essential information about Ghardaia University dentistry students who study English for specific purposes, yet the investigation has several factors which need recognition. First, the study is limited to a single institution and a specific group of students, which may limit the generalizability of findings to other contexts. The needs and challenges which dentistry students at other Algerian universities and dental students in other countries face will differ from those of students at this particular university.

The study depends mostly on self-reported information, which comes from participants who filled out questionnaires and took part in interviews, since their understanding of the situation will affect their responses. The limited number of classroom observations results in some validation through classroom observations. Future research might benefit from additional data sources, which include analysis of students' actual performance on reading or writing tasks or more extensive observational data.

The research provides a snapshot of student needs and difficulties at one point in time instead of showing how these issues develop throughout the research period. A longitudinal study following students throughout their dental education could provide additional insights into how needs and challenges evolve as students progress through their program. The research identifies student requirements through its needs assessment, however it does not deliver practical applications for ESP course design because an actual ESP course development process remains absent from the study.

The research would identify how needs-based course design functions through its practical implementation of the coursework. The study focuses on students and teachers,

however it requires more dental faculty and administrative staff and dental practitioners from the field who understand professional language needs and expectations to provide their viewpoints.

4.6. Suggestions for Further Research

Researchers can explore new research directions because the study results, together with study restrictions, show new research opportunities. First, this study needs to be duplicated in different dental educational settings to evaluate which needs assessment results show consistent patterns across various contexts and which elements differ according to specific settings. Second, dentistry students require investigation of their ESP needs from multiple academic years to identify their evolving needs and suitable ESP teaching methods that match their learning stages.

Third, research needs to create an ESP course through NA results, which will be evaluated using action research methods to achieve ongoing course improvement through assessment and feedback processes. Fourth, analysis requires examination of actual dental materials and communication patterns to determine the exact language components and communication goals which ESP training should address. Fifth, testing needs to evaluate various teaching methods and instructional materials to determine their effectiveness in teaching ESP to dentistry students through experimental and quasi-experimental research methods.

Sixth, research investigates the teaching needs and firsthand experiences of dental faculty members who teach English while they learn about student language expectations and language skill development techniques. Finally, investigation demonstrates how language skills impact student achievement by examining the relationship between ESP proficiency and academic and professional results in dentistry.

Conclusion

The chapter investigates the main findings of the study through their connection to the research questions and existing literature. The discussion has examined the English language requirements of dentistry students, their main challenges and the use of NA for developing effective ESP courses.

The study showed teaching methods together with educational recommendations which assisted teachers and students while showing study restrictions and future research paths. The research results demonstrate that dentistry students require particular English language skills which differ from the general English student requirements, while facing multiple difficulties in learning discipline-specific language skills, and a NA should be applied to develop effective ESP programs. The study will present its findings through a general conclusion which demonstrates how NA benefits dental students who need English for specific purposes.

General Conclusion

The study examined how NA serves as a fundamental element that enables the creation of an effective ESP curriculum for dentistry students at Ghardaia University. The research used a mixed-methods approach to study the English language needs of dentistry students through student and teacher questionnaires and classroom observations, which showed that systematic NA leads to the development of effective specialised ESP teaching materials. The research findings demonstrate that dental students must acquire English skills because both dental training and worldwide dental work require English proficiency as a fundamental skill.

The primary requirements for students include developing academic writing skills, while they need to master dental terminology and achieve comprehension of scientific texts, as well as develop listening and speaking skills for their academic and professional success. The students encounter critical challenges that hinder them from accessing their required resources because they cannot comprehend technical vocabulary and scientific discourse, and they lack essential learning resources. The research demonstrates that NA serves as an essential component that enables the successful development of ESP programs, although it functions as an initial step.

The NA process helps course designers make evidence-based decisions about course objectives and all aspects of curriculum development, including instructional resources, teaching methods, and assessment approaches. The needs-based approach establishes clear distinctions between assumption-based or generic approaches to ESP instruction while delivering more direct educational outcomes through its focused and efficient educational delivery. The research study demonstrates how Ghardaia University implements ESP program improvements, which extend to other Algerian universities that experience similar challenges in preparing students for English-based study in specialised academic areas.

The study shows that dentistry students' ESP courses must give primary focus to reading comprehension and vocabulary growth while teaching writing and listening, and speaking skills through methods that match real-life situations. The educational process requires authentic dental materials to be used as students learn reading strategies through direct reading strategy teaching, together with the teaching of reading strategies and discourse conventions. Students need to study vocabulary through diverse teaching methods that help them learn essential content.

The organisation requires immediate work in three critical fields, which need to be solved through teaching material development, educator training, and institutional support establishment. The research establishes direct value because it supplies NA results that benefit English for specific purposes researchers. The research provides empirical evidence that

exists within an under-researched context (Algerian dental education) and an under-represented language combination (Arabic/French/English environment).

The established NA frameworks show their applicability to this context, while the research establishes which features are specific to this particular context. The research expands our understanding of ESP, which exists in multiple contexts, while showing that NA must be specific to each context instead of assuming that findings from one study will apply to all other studies. The study succeeded in delivering major results that identified specific research areas that need additional investigation.

The future research agenda needs to track student requirements and their development over time, assess the effectiveness of ESP programs that use needs-based teaching, determine effective learning methods, and understand how dental faculty and practising dentists perceive the program. The research proves that students need to develop language skills that will help them achieve success in their dental studies and professional life. The research proves that NA functions as the primary requirement that educational institutions need to establish successful ESP programs.

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Appendices

APPENDIX A

STUDENTS' QUESTIONNAIRE

STUDENTS' QUESTIONNAIRE

English for Dental Purposes: NA Study

Dear Student,

This questionnaire is part of a research study on the English language needs and difficulties of dentistry students at Ghardaia University. Your responses will help us understand your needs better and design more effective ESP courses. The questionnaire is anonymous and will take approximately 15-20 minutes to complete. Your honest and thoughtful responses are greatly appreciated.

Thank you for your participation!

SECTION ONE: BACKGROUND INFORMATION

Q1. Age:

☐ 18-20 years

☐ 21-23 years

☐ 24-26 years

☐ 27+ years

Q2. Gender:

☐ Male

☐ Female

Q3. Current year of study:

☐ 1st Year

☐ 2nd Year

Q4. How would you rate your overall English proficiency?

☐ Beginner

☐ Pre-intermediate

☐ Intermediate

☐ Upper-intermediate

☐ Advanced

Q5. Where did you learn English? (You may select more than one)

☐ Secondary school

☐ Private language institute

☐ Self-study

☐ University ESP courses

☐ Other: ____

SECTION TWO: ATTITUDES TOWARD ENGLISH

Q6. How important is English for your dental studies?

☐ Very important

☐ Important

☐ Moderately important

☐ Slightly important

☐ Not important

Q7. Why do you think English is important for dentistry? (You may select more than one)

☐ To read dental textbooks and research articles

☐ To understand dental terminology

☐ To access online dental resources

☐ To attend international conferences

☐ To communicate with international colleagues

☐ For future career opportunities

☐ To pursue postgraduate studies abroad

☐ Other: ____

Q8. How motivated are you to improve your English for dental purposes?

☐ Very motivated

☐ Motivated

☐ Moderately motivated

☐ Slightly motivated

☐ Not motivated

Q9. How confident are you in using English in your dental studies?

☐ Very confident

☐ Confident

☐ Moderately confident

☐ Slightly confident

☐ Not confident

SECTION THREE: LANGUAGE NEEDS

Q10. How often do you need to do the following tasks in English for your dental studies?

Q11. Rate the importance of the following skills for your dental studies:

Q12. Which language skill do you think needs the most improvement for your dental studies?

- ☐ Reading
- ☐ Writing
- ☐ Listening
- ☐ Speaking
- ☐ Vocabulary
- ☐ Grammar

SECTION FOUR: LANGUAGE DIFFICULTIES

Q13. How difficult do you find the following aspects of learning English for dental purposes?

Q14. What are the main challenges you face when reading dental texts in English? (You may select more than one)

- ☐ Unknown vocabulary
- ☐ Complex sentence structure
- ☐ Unfamiliarity with text organisation
- ☐ Lack of background knowledge
- ☐ Length and density of texts
- ☐ Technical terminology
- ☐ Lack of reading strategies
- ☐ Other: ____

Q15. What strategies do you use when you encounter unknown vocabulary in dental texts? (You may select more than one)

- ☐ Use a dictionary
- ☐ Try to guess from context
- ☐ Ask teachers or classmates
- ☐ Skip the word
- ☐ Use online translation tools
- ☐ Analyse word parts (prefix, suffix, root)
- ☐ Other: ____

Q16. Have you experienced any of the following difficulties in ESP learning?

SECTION FIVE: LEARNING PREFERENCES AND SUGGESTIONS

Q17. What teaching methods do you find most helpful for learning ESP? (You may select more than one)

- ☐ Lectures with explanations
- ☐ Group discussions
- ☐ Pair work activities
- ☐ Individual reading and writing tasks
- ☐ Vocabulary drills and exercises
- ☐ Analysing authentic dental texts
- ☐ Role-plays and simulations
- ☐ Presentations
- ☐ Use of multimedia (videos, audio)
- ☐ Other: ____

Q18. What types of materials would you like to use in ESP classes? (You may select more than one)

- ☐ Dental textbook excerpts
- ☐ Research article abstracts
- ☐ Case reports
- ☐ Patient information materials
- ☐ Procedural descriptions
- ☐ Medical/dental dictionaries
- ☐ Online dental resources
- ☐ Videos of dental procedures
- ☐ Recorded lectures
- ☐ Other: ____

Q19. Would you like ESP courses to include the following? (You may select more than one)

- ☐ More focus on dental vocabulary
- ☐ Reading strategies for scientific texts
- ☐ Academic writing skills
- ☐ Presentation skills
- ☐ Note-taking strategies
- ☐ Professional communication skills
- ☐ Pronunciation of technical terms
- ☐ Grammar for academic writing
- ☐ Other: ____

Q20. Do you think a specialised ESP course focused on dental English would be beneficial?

APPENDICES

☐ Definitely yes

☐ Probably yes

☐ Not sure

☐ Probably no

☐ Definitely no

Q21. How many hours per week would you be willing to dedicate to ESP study?

☐ 1-2 hours

☐ 3-4 hours

☐ 5-6 hours

☐ 7+ hours

Q22. What suggestions do you have for improving ESP instruction for dentistry students?

—

—

—

Q23. Any additional comments or concerns about learning English for dental purposes?

—

—

—

Thank you very much for your time and cooperation!

APPENDIX B

TEACHERS' QUESTIONNAIRE

TEACHERS' QUESTIONNAIRE

English for Dental Purposes: NA Study

Dear Teacher,

This questionnaire is part of a research study investigating the English language needs and difficulties of dentistry students at Ghardaia University. Your professional insights and experience are invaluable for understanding the challenges in ESP teaching and identifying ways to improve instruction. The questionnaire will take approximately 20-25 minutes to complete and is completely confidential.

Thank you for your participation!

SECTION ONE: BACKGROUND INFORMATION

Q1. Gender:

☐ Male

☐ Female

Q2. Educational background:

☐ BA/License in English

☐ MA in English (specify field): ____

☐ PhD in English (specify field): ____

☐ BA/License in another field: ____

☐ Other: ____

Q3. Teaching experience:

a) Total years of teaching English: ____

b) Years of teaching ESP: ____

c) Years of teaching ESP to medical/dental students: ____

Q4. Have you received any specialised training in ESP teaching?

☐ Yes (please specify): ____

☐ No

Q5. Do you have any background or training in medical/dental content?

☐ Yes (please specify): ____

☐ No

SECTION TWO: TEACHING CONTEXT

Q6. What is the typical class size in your ESP courses for dentistry students?

- ☐ Less than 20 students
- ☐ 20-30 students
- ☐ 31-40 students
- ☐ 41-50 students
- ☐ More than 50 students

Q7. How many hours per week do you teach ESP to dentistry students?

- ☐ 1-2 hours
- ☐ 3-4 hours
- ☐ 5-6 hours
- ☐ 7+ hours

Q8. What materials/resources do you use in your ESP classes? (You may select more than one)

- ☐ General English textbooks
- ☐ ESP textbooks (specify): ____
- ☐ Authentic dental texts (articles, textbooks)
- ☐ Self-designed materials
- ☐ Online resources
- ☐ Videos/multimedia
- ☐ No specific textbook
- ☐ Other: ____

Q9. Do you have adequate access to ESP teaching resources and materials?

- ☐ Yes, very adequate
- ☐ Somewhat adequate
- ☐ Neutral
- ☐ Somewhat inadequate
- ☐ Very inadequate

SECTION THREE: STUDENTS' NEEDS AND DIFFICULTIES

Q10. In your opinion, what are the most important language needs of dentistry students? (Rank from 1=most important to 7=least important)

- ☐ Reading comprehension of dental texts
- ☐ Understanding dental terminology

- ☐ Academic writing skills
- ☐ Listening comprehension
- ☐ Speaking/presentation skills
- ☐ Grammar accuracy
- ☐ Pronunciation of technical terms

Q11. Which language skill do dentistry students need most for their academic success?

- ☐ Reading
- ☐ Writing
- ☐ Listening
- ☐ Speaking
- ☐ Vocabulary
- ☐ Grammar

Q12. What are the main difficulties dentistry students face in ESP learning? (You may select more than one)

- ☐ Limited general English proficiency
- ☐ Difficulty with technical vocabulary
- ☐ Trouble understanding complex texts
- ☐ Lack of motivation
- ☐ Insufficient background in dental content
- ☐ Poor reading strategies
- ☐ Limited writing skills
- ☐ Fear of speaking in English
- ☐ Difficulty with pronunciation
- ☐ Large gap between students' proficiency levels
- ☐ Other: ____

Q13. How would you rate the overall English proficiency of dentistry students?

- ☐ Advanced
- ☐ Upper-intermediate
- ☐ Intermediate
- ☐ Pre-intermediate
- ☐ Beginner

Q14. Rate the following aspects in terms of difficulty for dentistry students:

SECTION FOUR: TEACHING APPROACHES AND CHALLENGES

Q15. What teaching methods do you most frequently use in your ESP classes? (You may select more than one)

- ☐ Lecturing and explanation
- ☐ Group work
- ☐ Pair work
- ☐ Individual assignments
- ☐ Text analysis
- ☐ Vocabulary exercises
- ☐ Role-plays
- ☐ Presentations
- ☐ Discussion activities
- ☐ Multimedia presentations
- ☐ Other: ____

Q16. What challenges do you face in teaching ESP to dentistry students? (You may select more than one)

- ☐ Lack of appropriate materials
- ☐ Limited knowledge of dental content
- ☐ Large class sizes
- ☐ Insufficient class time
- ☐ Students' low English proficiency
- ☐ Students' lack of motivation
- ☐ Mixed proficiency levels in class
- ☐ Lack of institutional support
- ☐ Limited training in ESP
- ☐ Difficulty assessing students appropriately
- ☐ Other: ____

Q17. How do you address the gap between students' current proficiency and their language needs?

—
—

Q18. Do you collaborate with dental faculty to understand students' language needs?

- ☐ Yes, regularly
- ☐ Yes, occasionally
- ☐ Rarely
- ☐ Never

If yes, how does this collaboration help your teaching?

—

Q19. How do you assess students' progress in your ESP course? (You may select more than one)

- ☐ Written exams
- ☐ Oral presentations
- ☐ Writing assignments
- ☐ Reading comprehension tests
- ☐ Vocabulary tests
- ☐ Class participation
- ☐ Projects
- ☐ Other: ____

SECTION FIVE: COURSE DESIGN AND IMPROVEMENT

Q20. Do you think the current ESP curriculum adequately meets the needs of dentistry students?

- ☐ Definitely yes
- ☐ Probably yes
- ☐ Not sure
- ☐ Probably no
- ☐ Definitely no

Please explain your answer:

—

—

Q21. What content areas should be prioritized in an ESP course for dentistry students? (You may select more than one)

- ☐ Dental anatomy vocabulary
- ☐ Reading strategies for scientific texts
- ☐ Academic writing conventions
- ☐ Technical report writing
- ☐ Presentation skills
- ☐ Note-taking strategies
- ☐ Understanding research article structure
- ☐ Professional communication
- ☐ Pronunciation of technical terms

☐ Grammar for academic writing

☐ Other: ____

Q22. In your opinion, what would make ESP courses more effective for dentistry students?

—

—

—

Q23. Would you support the development of a specialised ESP curriculum specifically designed for dentistry students?

☐ Strongly support

☐ Support

☐ Neutral

☐ Oppose

☐ Strongly oppose

Q24. What resources or support would help you teach ESP to dentistry students more effectively?

—

—

Q25. What recommendations would you make for improving ESP instruction for dentistry students at Ghardaia University?

—

—

—

Q26. Any additional comments or insights about teaching ESP to dentistry students?

—

—

—

Thank you very much for your time and valuable input!

APPENDIX C

CLASSROOM OBSERVATION PROTOCOL

CLASSROOM OBSERVATION PROTOCOL

English for Dental Purposes: NA Study

Observer: _____ **Date:** _____ **Time:** _____ **Class:** _____

_____ **Number of students:** _____ **Topic/Lesson:** _____

PART ONE: PRE-OBSERVATION INFORMATION

1. Course Information:

Course name: _____

Level: _____

Duration of session: _____

2. Physical Setting:

Classroom size: ☐ Small ☐ Medium ☐ Large

Seating arrangement: ☐ Rows ☐ U-shape ☐ Groups ☐ Other: _____

Available technology: ☐ Projector ☐ Computer ☐ Whiteboard ☐ Other: _____

PART TWO: LESSON OBSERVATION

A. LESSON CONTENT AND MATERIALS

3. What is the main focus of the lesson?

Reading comprehension

Vocabulary development

Writing skills

Listening comprehension

Speaking/discussion

Grammar

Multiple skills

Other: _____

4. What materials are used?

Textbook

Handouts

Authentic dental texts

Multimedia (videos, audio)

PowerPoint presentation

No specific materials

Other: _____

5. Are the materials relevant to dental studies?

Highly relevant (dental-specific)

Moderately relevant (medical/scientific)

Slightly relevant

Not relevant (general English)

6. Description of materials and content:

B. LANGUAGE DEMANDS

7. What types of vocabulary are emphasized?

General English vocabulary

Academic vocabulary

Dental terminology

Medical terminology

Mixed

None specifically

8. Examples of dental/technical vocabulary encountered:

9. What grammar structures are present in the materials/lesson?

10. What discourse features are present? (e.g., definitions, descriptions, procedures, cause-effect)

C. TEACHING METHODS AND ACTIVITIES

11. What teaching methods are used? (Check all that apply)

Lecture/explanation

Question and answer

Group work

Pair work

Individual work

Class discussion

Presentation

Role-play

Other: _____

12. Sequence of activities:

13. Is explicit language instruction provided?

Yes (describe): _____

No

14. Are reading/learning strategies explicitly taught?

Yes (which ones): _____

No

D. STUDENT ENGAGEMENT AND PARTICIPATION

15. Overall student engagement level:

Very high

High

Moderate

Low

Very low

16. Percentage of students actively participating:

75-100%

50-74%

25-49%

0-24%

17. What language(s) do students use?

English only

Mostly English, some Arabic/French

Equal mix

Mostly Arabic/French, some English

Arabic/French only

18. Evidence of student comprehension:

Students ask relevant questions

Students answer correctly

Students complete tasks successfully

Students seem confused

Students request clarification

Mixed evidence

Other: _____

19. Observable student difficulties:

E. TEACHER-STUDENT INTERACTION

20. What language(s) does the teacher use?

English only

Mostly English, some Arabic/French

Equal mix

Mostly Arabic/French, some English

21. Types of questions teacher asks: (Check all that apply)

Yes/no questions

Factual/recall questions

Comprehension questions

Analysis/critical thinking questions

Open-ended questions

Other: _____

22. How does the teacher respond to student errors?

Immediate correction

Delayed correction

Peer correction

Self-correction encouraged

Errors largely ignored

Mixed approaches

23. How does the teacher scaffold learning? (Check all that apply)

Provides examples

Uses visual aids

Simplifies language

Provides translations

Asks leading questions

Builds on prior knowledge

Other: _____

F. ASSESSMENT OF LEARNING

24. How is student understanding checked?

Oral questions

Written exercises

Observation of task completion

Student self-assessment

No formal checking

Other: _____

25. Is feedback provided to students?

Yes, immediate

Yes, delayed

Minimal

No

PART THREE: POST-OBSERVATION REFLECTION

26. Overall lesson effectiveness for addressing dentistry students' ESP needs:

Very effective

Effective

Moderately effective

Slightly effective

Not effective

27. Strengths observed:

28. Areas for improvement:

29. Evidence of needs/difficulties identified:

30. Recommendations based on observation:

31. Additional notes and observations:

Observer's Signature: _____ **Date:** _____

APPENDIX D

SAMPLE CLASSROOM OBSERVATION RECORDS

This appendix presents three completed observation records from ESP classes for dentistry students at Ghardaia University, demonstrating the application of the observation protocol (Appendix C) in actual classroom settings. These records provide concrete examples of classroom dynamics, teaching approaches, student engagement patterns, and observable difficulties that informed the findings presented in Chapter Three.

Observation Record 1

PRE-OBSERVATION INFORMATION

Date: 2025-11-15

Class: 2nd Year Dentistry - ESP

Number of Students: 38

Duration: 90 minutes

Topic: Reading: Dental Caries and Prevention

Lesson Focus: Reading comprehension

Materials Used:

- Handout from dental textbook
- PowerPoint presentation

OBSERVATION NOTES

Teaching Methods Observed:

- Lecture/explanation
- Question and answer
- Individual work

Student Engagement: Moderate

Participation Rate: 25-49%

Observable Difficulties:

Many students struggled with technical vocabulary like 'demineralisation' and 'cariogenic'. Complex sentence structures in the text are confusing.

Strengths Observed:

The teacher provided effective examples using visual aids. The content was relevant to students' dental courses.

Areas for Improvement:

More pre-reading vocabulary work is needed. Students need explicit reading strategies. More opportunities for student interaction.

Overall Effectiveness: Moderately effective

Observation Record 2

PRE-OBSERVATION INFORMATION

Date: 2025-11-22

Class: 1st Year Dentistry - ESP

Number of Students: 42

Duration: 90 minutes

Topic: Vocabulary: Dental Instruments and Equipment

Lesson Focus: Vocabulary development

Materials Used:

- PowerPoint with images
- Vocabulary list handout
- Video clips

OBSERVATION NOTES

Teaching Methods Observed:

- Lecture/explanation
- Multimedia presentations
- Vocabulary exercises

Student Engagement: High

Participation Rate: 50-74%

Observable Difficulties:

Pronunciation of instrument names was challenging. Students had trouble remembering the many new terms introduced.

Strengths Observed:

Visual aids are very effective. Students actively engaged with matching exercises. Use of video demonstrations is helpful.

Areas for Improvement:

Need more practice activities for retention. Could use pair work for pronunciation practice.

Overall Effectiveness: Effective

Observation Record 3

PRE-OBSERVATION INFORMATION

Date: 2025-12-05

Class: 2nd Year Dentistry - ESP

Number of Students: 35

Duration: 90 minutes

Topic: Writing: Case Report Structure

Lesson Focus: Writing skills

Materials Used:

- Sample case reports
- Writing template
- Whiteboard

OBSERVATION NOTES

Teaching Methods Observed:

- Lecture/explanation
- Text analysis
- Individual work

Student Engagement: Moderate

Participation Rate: 25-49%

Observable Difficulties:

Students struggled with academic writing conventions. Difficulty organising information logically. Limited vocabulary for describing clinical observations.

Strengths Observed:

Authentic materials used. Clear explanation of case report structure. Good examples provided.

Areas for Improvement:

APPENDICES

More guided practice is needed. Students need more time for writing. Peer review could be beneficial.

Overall Effectiveness: Moderately effective

APPENDIX E

PARTICIPANT CONSENT FORMS

This appendix contains the informed consent forms used to obtain voluntary participation from students and teachers in this research study, demonstrating adherence to ethical research practices and protection of participant rights.

Student Participant Consent Form

RESEARCH STUDY TITLE:

The Importance of Needs Analysis in Designing an ESP Course for Dentistry Students at Ghardaia University

RESEARCHER: [Student Name], MA Candidate

Department of English Language and Literature, University of Medea

SUPERVISOR: [Supervisor Name]

Department of English Language and Literature, University of Ghardaia

INVITATION TO PARTICIPATE

You are invited to participate in a research study investigating the English language needs and difficulties of dentistry students at Ghardaia University. Your participation will contribute valuable insights that will help improve ESP instruction for future dental students. This study is being conducted as part of a Master's degree research project in the Department of English.

WHAT PARTICIPATION INVOLVES

If you agree to participate in this study, you will be asked to:

APPENDICES

- Complete an anonymous questionnaire about your English language learning experiences, needs, and difficulties
- Answer questions honestly and thoughtfully
- Provide suggestions for improving ESP instruction

The questionnaire will take approximately 15-20 minutes to complete. You may complete it during class time or at your convenience.

VOLUNTARY PARTICIPATION

Your participation in this research study is completely voluntary. You have the right to:

- Choose not to participate without providing any reason
- Skip any questions you do not wish to answer
- Withdraw from the study at any time without penalty
- Your decision to participate or not participate will NOT affect your grades, academic standing, or relationship with instructors in any way

CONFIDENTIALITY AND ANONYMITY

All information you provide will be treated with strict confidentiality:

- The questionnaire is anonymous—you will not be asked to provide your name
- Your responses will be combined with those of other students and analyzed as group data
- No individual responses will be identifiable in any reports, publications, or presentations
- All data will be stored securely and accessible only to the research team
- Information will be used only for research purposes related to this study

BENEFITS AND RISKS

Potential Benefits:

Your input will help design more effective ESP courses that are tailored to the actual needs of dentistry students. While there are no direct personal benefits to you, your

APPENDICES

participation contributes to improving English language education for current and future dental students at Ghardaia University.

Potential Risks:

There are no anticipated risks or discomforts associated with participating in this study. The questionnaire asks about your language learning experiences and does not involve any sensitive personal information.

CONTACT INFORMATION

If you have any questions or concerns about this research study, please feel free to contact:

Researcher: [Name]

Email: [Email Address]

Supervisor: [Name]

Email: [Email Address]

Department of English Language and Literature, University of Ghardaia

CONSENT STATEMENT

I have read and understood the information provided above. I have had the opportunity to ask questions about the study and have received satisfactory answers. I understand that my participation is voluntary and that I can withdraw at any time. I voluntarily agree to participate in this research study.

Participant Name (Print): _____

Signature: _____ Date: _____

Teacher Participant Consent Form

RESEARCH STUDY TITLE:

The Importance of Needs Analysis in Designing an ESP Course for Dentistry Students at Ghardaia University

RESEARCHER: [Student Name], MA Candidate

Department of English Language and Literature, University of Ghardaia

SUPERVISOR: [Supervisor Name]

Department of English Language and Literature, University of Ghardaia

INVITATION TO PARTICIPATE

You are invited to participate in a research study investigating ESP teaching for dentistry students at Ghardaia University. As an ESP teacher with experience teaching medical or dental students, your professional insights, expertise, and perspectives are invaluable for understanding the challenges in ESP instruction and identifying ways to improve course design and delivery. This study is being conducted as part of a Master's degree research project.

WHAT PARTICIPATION INVOLVES

If you agree to participate in this study, you will be asked to:

- Complete a questionnaire about your experiences teaching ESP to dentistry students
- Share your professional perspectives on student needs, learning difficulties, and teaching challenges
- Provide recommendations for improving ESP instruction and curriculum
- Possibly allow classroom observation (optional, requiring separate consent)

The questionnaire will take approximately 20-25 minutes to complete.

VOLUNTARY PARTICIPATION

Your participation in this research study is completely voluntary. You have the right to:

- Decline to participate without providing any reason
- Skip any questions you prefer not to answer
- Withdraw from the study at any time
- Your decision to participate or not participate will NOT affect your professional standing, employment, or relationships with colleagues in any way

CONFIDENTIALITY AND ANONYMITY

All information you provide will be treated with strict confidentiality:

- Your responses will be reported anonymously without any identifying information
- Data will be presented in aggregate form combined with other participants' responses
- Individual responses will not be identifiable in any reports, publications, or presentations
- All data will be stored securely with access limited to the research team
- Information will be used only for research purposes related to this study

BENEFITS AND RISKS

Potential Benefits:

Your input will inform ESP curriculum development and may lead to improved teaching resources, professional development opportunities, and institutional support for ESP teachers. The findings may contribute to a better understanding of ESP pedagogy in dental education contexts.

Potential Risks:

There are no anticipated risks or discomforts associated with participating in this study.

CONTACT INFORMATION

If you have any questions or concerns about this research study, please contact:

APPENDICES

Researcher: Nechad ahmed

Email: ahmednechad@gmail.com

CONSENT STATEMENT

I have read and understood the information provided above. I have had the opportunity to ask questions about the study and have received satisfactory answers. I understand that my participation is voluntary and that I can withdraw at any time without penalty. I voluntarily agree to participate in this research study.

Participant Name (Print): _____

Signature: _____ Date: _____

الملخص

يبحث البحث الحالي في كيفية مساهمة تحليل الاحتياجات لتطوير برنامج للبرنامج ESP لطلاب طب الأسنان في جامعة غزة. يهدف البحث إلى تحديد الاحتياجات والتحديات اللغوية المحددة التي يواجهها طلاب طب الأسنان عند دراسة اللغة الإنجليزية لأغراض طب الأسنان. استخدم الباحثون تصميم دراسة متعددة الطرق من خلال توزيع استبيانات على 39 طالب من طب الأسنان و 17 أستاذ ESP أثناء مرافقة الأنشطة الصفية. استخدمت الدراسة التمثيل لسوميو إنشاء مخططات الدائرية بالإضافة إلى عرض المعلومات النوعية لتحليل البيانات. أظهرت النتائج الرئيسية أن طلاب طب الأسنان يعتبرون أهمية اللغة الإنجليزية في مجالهم بسبب كيفية عملهم و لمتى البحث الممارسة الدولية في طب الأسنان. يواجه الطلاب بتحديات تقييم مهاراتهم في اللغة متعددة، تشمل قراءة الوثائق العلمية وفهم مصطلحات طب الأسنان المعقدة، وكتابة الأوراق الأكاديمية، والتصرف في مواقف مهنية. أثبتت نتائج الدراسة أن الأداء الأكاديمي للطلاب قد ارتفع بعد الفهم المعتمد على كفاءتهم اللغوية. أعرب الطلاب عن حاجتهم إلى مواد ESP لطلاب الأسنان لأنها لا تعبر عن نمط دات طب الأسنان، ولم يختبروا تعلم لغة طب الأسنان الحقيقي. أوصت الدراسة بمنهج ESP قائم على تحليل احتياجات شامل، يجب أن يشمل مواد اللغة الإنجليزية لطلاب الأسنان تدريجياً لغوياً قائم على التخصص وطرق قدر يستفاد عليه من عمل ناجحاً لأكاديميو المهني لطلاب طب الأسنان.

الكلمات المفتاحية: الإنجليزية لأغراض محددة (ESP)، تحليل احتياجات، طب الأسنان، تصميم مقررات

ESP، احتياجات اللغة، الكفاءة اللغوية، مصطلحات طب الأسنان.