



ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION AND LANGUAGE STUDIES
DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURE (ENGLISH)

**AN INVESTIGATION INTO HEALTH SCIENCE STUDENTS' ENGLISH LANGUAGE
NEEDS: SAMARA UNIVERSITY IN FOCUS**

BY

TESSEMA GILO

ADDIS ABABA

MARCH, 2025



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ADVISOR: NURU MOHAMMED (PhD)

**A THESIS SUBMITTED TO DEPARTMENT OF FOREIGN LANGUAGE AND
LITERATURE IN FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY (PhD) IN ENGLISH LANGUAGE TEACHING (ELT)**

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APPROVED BY BOARD OF EXAMINERS:

Advisor..... Signature.....Date.....

Internal Examiner.....SignatureDate.....

External ExaminersignatureDate.....

DECLARATION

I, the undersigned, declare that this study entitled “**An Investigation into Health Science Students’ English Language Needs: Samara University in Focus**”| is my original work and has not been presented for a degree in any other University, and that all sources of materials used for the thesis have been duly acknowledged.

Name Tessema Gilo

Signature _____

Place College Education and Language Studies
Department of Foreign Language and Literature, Addis Ababa University

Submission Date _____

ABSTRACT

An Investigation into Health Science Students' English Language Needs: Samara

University in Focus

English language courses are offered in higher education institutions across the majority of the world where English is spoken as a second or first language to address students' English language needs in the target-situation use. However, at all Ethiopian higher education institutions where English is spoken as a foreign language, two English language skills courses "communicative English language skills I" and "communicative English language skills II," are offered as common courses in the first year. As a result, meeting the specific language and communication needs of Ethiopian health science and medical students may be challenging. This might be reason for inadequate English language use in health science educational and professional contexts where English is largely expected. Hence, the purpose of this study was to investigate the English language needs of health science college students at Samara University for designing specific English language course that fit the needs of the students. Hence, 131 students from the Health Science College in the academic year 2021/2022 were chosen using a stratified sampling technique. Two English language course instructor and six subject area course instructors were selected from Samara University, Ethiopia through available sampling and simple random sampling respectively. Eight health professionals from Dubti General Hospital also selected via purposive sampling. Hence, a sequential explanatory mixed-methods research design was used. The data for this study were collected using a questionnaire, TOEFL test, interview, observations, and document analysis. The quantitative data was analysed quantitatively by using descriptive statistics, mean and percentage by using spss 25 version computer software, whereas the qualitative data analysis was made based on procedures to descriptive and themes and interpreted qualitatively. The findings revealed that highly technical medical English terms which deviate from general English were used in academic fields of study and professional settings, and students want to learn these technical terms in their target situations. This study identified the priority of each English language skill as they are used in the health science field of study and future professional contexts. The findings also displayed that throughout their internship programme, health science students need translation, reporting, and grammatical skills, as well as the ability to describe the patient, condition, location, and pathology of internal organs, which will help them in their future professional careers. The data also indicated that the participating student better performed the grammar and usage skills, as well as reading skills. They did, however, perform poorly in listening and writing. The study also discovered that students' failure to characterize a patient, the case, the complaints, and the prescriptions in medical terminology was partially due to a lack of English language skills. As a result, it is recommended that English language courses for health science students be developed throughout their undergraduate studies, taking into account both their academic field of study and future profession.

Keywords: /Course design/ESP/Health science students/ Lacks/Learning needs/ Necessity/Needs analysis/Target needs/Wants

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LIST OF ABBREVIATIONS

DX	Investigation
RX	Treatment
EAP	English for Academic purpose
EOP	English for Occupational Purposes
ESP	English for Specific Purpose
ETS	English Testing System
GE	Genera English
GYN	Gynecology
HPI	History of Presenting Illness
iBT	Internet Based Test
PBT	Paper Based Test
TOEFL	Test of English as a foreign Language
TWE	Test of Written English

CHAPTER ONE: INTRODUCTION

This chapter discusses the background of the study, the statement of the problem, the objectives of the study, the research questions, the scope of the study, the significance of the study, the limitations of the study, definitions of key terms and the organization of the thesis.

1.1. Background of the Study

Following contemporary education, different foreign languages were introduced into the curriculum of Ethiopia's educational system. For example, the education system in the pre-Italian period (1900–1935) was dominated by the French language; the Italian period (1935–1941) was dominated by the Italian language; the post-Italian period (1941–1974) was primarily characterized by the English language dominance; and the Derg Regime period (1974–1991) and the EPRDF period (1991–present) have been operated primarily by the English language (Gerencheal & Mishra, 2018). They also stated that the status and responsibilities of such foreign languages have altered depending on the political and ideological differences between the nation's rulers. Taye (2019) revealed that the government's language policy appears to be devoted to sustaining ethnic and linguistic difference, and there are now no official languages in the country. From these instances, Ethiopia appears to have no foreign language policy in general and no English language policy in particular in its education curriculum policy. This situation may lead to inconsistencies in how English is taught and assessed across regions, with local educational priorities taking precedence over a unified national vision. The aim of this study was not to discuss foreign language policy but to see how the country has incorporated it into its education policy, which may help identify what individuals do with the English language and how they learn to do it.

Ethiopia's population is multi-ethnic and multilingual. According to Ethiopia's population and census report (2007), there are over 85 ethnic groupings with unique vernaculars. Oromo, Amhara, Somalis, and Tigre make up the major groups. In terms of language, Amharic is the federal working language, whereas the remaining major languages are regional working languages spoken by their respective ethnicities. Recently, it was stated that these three languages are federal working languages equal to Amharic; however, the researcher was unable to obtain actual references. Regardless of these local languages, which are used as a medium of

instruction at the primary school level, English is taught as a subject from grade one and is a medium of instruction from grade nine through colleges and universities across the country. In its Education and Training Policy, the MOE (1994) proposes that English be utilized as a medium of instruction for secondary and university levels and as a compulsory subject. According to FDRE MOE (2009), English must be taught in Ethiopia's educational system because it is the language of wider communication; it is well-developed at the international level and is the language of science and technology, trade and politics; and it has long been the language of international relations and the medium of instruction for secondary and higher education in Ethiopia.

All universities around the country are now expected to use English as their working language. They must use English to prepare papers, hold meetings, take minutes, and write reports. The majority of government sectors, public and private, use English in addition to Amharic, the federal working language. Furthermore, knowledge of the English language is required to operate in various areas where English is used as an official language, such as international organizations, NGOs, business corporations, banks, hotels and tourism, foreign travel, and the health sector. As a result, English plays an essential role in Ethiopia's educational and professional sectors. The primary goal of teaching the English language in Ethiopia is to generate learners who can efficiently adjust to the fast-paced and demanding environment (MOE, 2009, 2013). As a result, English-language learners must be able to analyze, synthesize, and evaluate information and scientific facts, as well as document any knowledge and make solid decisions.

According to the Ministry of Education (2013), tertiary education should include tasks such as giving oral presentations, listening to lectures and taking notes, conducting debates, and completing project work. As a result, the impact of the English language in higher education institutions has increased because mastery of the language contributes to academic success. Academic success at university necessitates that students overcome the challenges of interpreting information from English-based sources and adopt independent study skills in order to successfully transmit their understanding through English. In addition to vocabulary and grammatical abilities, children must master four skills (listening, speaking, reading, and writing) to succeed.

Particularly, English is commonly utilized in Ethiopia's health professional area (health centers and hospitals). Everything relating to health services is written and documented in hospitals, but communication with patients may be done in regional language except in Addis Ababa, Diredawa where Amharic is used as official language. .English is clearly in great demand not only for learning but also for pursuing a medical profession (Wahyuni, 2021). The reason why English is used so widely in health sectors is obvious; no study is required to answer this, but the difficulty is that nothing is written regarding the usage of English in the health sector or elsewhere, even in Ethiopia's constitution or ministry of health. The use of the English language is also not clearly addressed in Revised Ethiopia's higher education proclamation (FDRE, 2019) .

Even, the recent Ethiopian Education Development Roadmap (2018–30) revealed a research finding that students who passed the general secondary school leaving examination could not read or write properly in English, which is a medium of instruction in Ethiopian higher education institutions, but said nothing about English language roles. Despite the increase and demand for the English language in Ethiopia, as well as its status as a medium of instruction in the educational system, the function of English is not expressly addressed in either the federal or regional constitution (Gerencheal & Mishra, 2018).They also noted that, while the Ethiopian Education and Training Policy (1994) document sought to outline the function of the English language, it was limited to the academic field. Even if English has been used as a medium of instruction in Ethiopian secondary and higher education institutions, as well as in some professional areas, it is still unclear what English language skills university students require to succeed in academic and professional contexts.

However, in most parts of the world, English language instruction at higher education institutions receives more priority. For example, Reinders et al. (2019) argue that English is conceptualized as a lingua franca (ELF), i.e., the language used for communication among people who do not share the same mother tongue(s), as opposed to ELT or EFL approaches, which aim to develop students' language ability with native speakers of English (NESs) as the unquestioned model for successful global communication. In recent years, teaching EFL at universities across China has been increasingly influenced by the desire and need to innovate and

attempt to cover general English teaching and ESP, including EAP and intercultural communication, for students at three recognized levels (primary, intermediate, and advanced) (Reinders et al., 2017).

According to Reinders et al. (2019), English was most likely chosen as the lingua franca (ELF) for Japanese for two reasons. The first reason is that the centralization of all faculties' ELT programmes required the university to develop a type of English that could be useful to every student (for example, the College of Agriculture provided English for science, and the College of Business focused on business English), and many students were expected to work as professionals in international society after graduation. The second is that including the most recent theory of English language use might distinguish the university's curriculum.

Therefore, English is used as an international language in a wide range of professions. English is employed throughout the majority of the world's professional fields, particularly in health and technology. In Ethiopia, for example, the needs for English in hospitals and health care differ from those in other sectors. Except for universities, most Ethiopian professional fields employ Amharic as a medium of communication at the federal level and regional language at the regional level, whereas English is widely used in the health sector and universities.

However, English language teaching in Ethiopian higher education institutions, particularly in the health science sector, appears to be neglected. Different literature also indicates the significance of English in higher education institutions, notably in the medical profession. For example, Isoda and Kondo (2022) believe that improving curriculum and systems is critical so that students understand the importance of English in their clinical or professional activities and develop a desire to study English. Medical students attending English classes at the tertiary level already have some understanding of general English, and they are now continuing to master medical English, which is particularly contextual and content-based (Antic & Milosavljevic, 2016).

It had been taken for granted in the past that the aim of an English course was to make the learners communicate like native speakers, but it was no longer an appropriate one because, for

most students today, English is a tool, like basic arithmetic, literacy, or computer skills—an ability they need to master in order to function effectively in today's world (Ur & Ur, 2012). Reinders et al. (2019) also indicated that the program English lingua franca (ELF) was designed for Japanese students because, like ELT, the aim is not the achievement of native English speakers (NES)-like proficiency but the acquisition of proficiency in English that students can use according to their individual purposes, fostering true global human resources.

.However, in all Ethiopian universities, two English language skills courses locally known as "communicative English language skills I" and "communicative English language skills II," are given in the first year as common courses. As Basturkmen (2010) indicates most universities, particularly, European universities deliver English-for-specific-purpose courses. Particular attention is given to medical students in most of these universities where the English language is used as the first or second language. ESP courses are delivered in the first year or second year and at the end of graduation in the medical and health-related fields. Hwang (2011) discovered that the optimal curriculum design pattern for English courses at Taiwan's medical school was general English in the freshman year, followed by medical English in the second and third years.

However, in Ethiopia, where English is a foreign language, health science and medical students take just common courses during their first year. However, English is employed as a medium of instruction. As a result, it may be challenging to meet health science or medical students' specialized language and communication needs based on the language needs of their academic and professional fields. Though it might be impossible to give ESP courses in each college or department of Ethiopia, the needs of English in health science or medical fields of study need consideration according to their English language demands. According to Kim (2008), learning a foreign language is mostly required to achieve a specific degree of English proficiency at work, which is a sign of high performance. He also points out that most adult language learners have compelling and particular reasons for learning a foreign language, although a handful may study a foreign language for enjoyment or curiosity. Dudley-Evans and St. John (1998) claimed that all English language learners have particular reasons for studying English.

Long (2005) argues that, just as no medical treatment is offered without a thorough diagnosis of the patient, no language instruction program should be established without a thorough needs analysis. According to Paltridge and Starfield (2013), the first stage in creating an ESP course is to assess the needs, which specify what and how the course will be taught. Hyland (2006) defines need analysis as an approach for gathering and evaluating course design-related information, as well as determining the course's how and what. He goes on to add that "needs" is an umbrella term that includes learners' objectives and backgrounds, language competency, motives for taking the course, teaching and learning preferences, and the circumstances in which they must communicate.

Nation and Macalister (2010) also state that, when developing a course, numerous elements must be addressed. These include learners' current knowledge and gaps, accessible resources such as time, teacher competence, curriculum designer strengths and limits, and teaching and learning principles. According to Long (2005), every language course should be developed in the context of a course for specific purposes, which differ only in the precision with which learners' needs may be articulated. He emphasizes that each course must be relevant to the needs of certain groups of learners as well as society as a whole. Hutchinson and Waters (1987, p. 8) clarify that "Tell me what you need English for, and I will tell you the English that you need."

According to Fortanet-Gomez and Raisanen (2008), Students entering higher education are presumed to have prior mastery of the English language. They show that English as a foreign language (EFL) teaching and learning at the postsecondary level is increasingly being given in response to specific situations or objectives for which the language may be required. They illustrate that the majority of the English taught at universities in Europe is English for specific purposes (ESP). ESP is characterized as educating learners to utilize English in academic, professional, or workplace environments (Basturkmen, 2010). She proposes that language be taught not for its own sake or to obtain a wide education but to facilitate admission or to increase linguistic efficiency in certain settings. According to Hutchinson and Waters (1987), each language course should be structured to meet the needs of the learners. "Need analysis is the key essence of ESP," (Rahman, 2015, p. 24).

To compete internationally, students must have at least three language skills: basic English, work-related language skills, and academic-related language skills (Yansyah, Rafidiya & Nadia., 2019). According to Nunan (2004), teaching a linguistic item just because it exists in the language is unnecessary. He argued that a prospective tourist visiting England should not be required to complete the same course as an air traffic controller in Singapore or a Columbian engineer going for doctoral studies in the United States. In sum, Hutchinson and Waters (1987), Dudley-Evans & St. John (1998), Nunan (2004), Long (2005), Fortanet-Gomez and Raisanen (2008), Basturkmen (2010), Nation and Macalister (2010), Ur & Ur (2012) and Reinders et al. (2019) indicate that the teaching of English language should match students' academic and professional needs.

Generally, the common point among the above researchers and scholars is that English language courses in higher education institutions should be designed to meet learners' academic needs and professional needs. Specifically, students in the health science profession across the world, and in Ethiopia in particular, require a high level of English language ability. Healthcare personnel are also required to speak English fluently in order to provide high-quality care. Paltridge and Starfield (2013), for example, state that language is vital in most professions, but especially in medicine, where efficient communication is widely regarded as critical to therapeutic results. In health care, information exchange has a significant influence on the success of actions in each treatment (Orr, 1997). According to Basturkmen (2010), healthcare practitioners must have effective communication skills, be introspective and practical, and comprehend the ethical and social dimensions of health care practice. McCorry and Mason (2011) also emphasize that students preparing for jobs in health care must be effective communicators, in addition to mastering the science and clinical abilities required to provide great patient care. They argue that the value of good communication skills in any allied health professional cannot be overstated and that a healthcare worker with great communication skills is always more effective in assisting patients. Li (2015) recommends that medical English be taught at escalating levels of difficulty throughout the five-year undergraduate degree. Mulu (2021) also suggested that English communication skills sessions be continued until graduation, with students interacting in English both inside and outside of class.

However, all first-year university students in Ethiopia's higher education institutions are required to attend communicative English language skills courses locally called "communicative English language skills I" and "communicative English language skills II". The communicative English skills are supposed to be provided to all first-year students entering Ethiopian higher education institutions. According to the module, the course's aim is to assist students in improving their English language skills via language learning activities that enable them to utilize English for academic and social purposes. On the other hand, based on the researcher's extensive teaching experience, the communicative English courses currently in use cannot meet the needs of health science students because they do not enable learners to function in their future professional settings or even academic study because they were designed for all fields of study rather than specific fields of study. The researcher identified that no English-language courses have been established to meet the English-language needs of medical or health science students in Ethiopian higher education institutions.

Therefore, the present study intends to investigate the English language needs of health science students at Samara University, Ethiopia. Thus, it seeks to show what these students need in order to successfully use English as a method of learning their academic subjects of study and as a medium of communication in their future professional contexts.

1.2. Statement of the Problem

Ethiopian higher education institutions, like others across the world, have student diversity in terms of ethnicity, language (mother tongue), socioeconomic status, educational background, fields of study, aptitude, motivation, and other factors. Thus, because English is used as a language of instruction at tertiary level, it is crucial to the success of students studying a variety of disciplines at Ethiopian higher education institutions. Beyond educational goals, the role of language is becoming increasingly significant in professional settings, particularly in the health science sector. In this context, as mentioned earlier, English language learning at the tertiary level seeks special attention in Ethiopian higher education institutions. Proficiency in English is an important factor in health science students' success because it directly affects their ability to comprehend specialized academic texts, participate effectively in clinical settings, and communicate with health practitioners. Despite the importance, many health science students

struggle to acquire the specific language skills required for their field such as understanding medical terminology, interpreting complex medical texts and engaging in precise verbal communication. However, the existing language courses and instructional approaches lack the specificity and adaptability required to address these distinct needs. For example, communicative English language skills courses are taught as a common course in all higher education institutions. At Samara University, for example, all first-year students in any discipline attend similar communicative English skills courses throughout the first year of a four- or five-year program as common courses. The courses were designed in 2019. There are two courses: Communicative English Skills I (FLEn 1011) and Communicative English Skills II (FLEn 1012). Both include five units; however, the second module includes three extra supplementary reading resources. The first module is taught in the first semester, and the second in the second semester. The first communicative English skills course is required before proceeding to the second. For example, the following is the sample of the general introduction to the module. Module for Communicative English Skills I (FLEn 1011).

The module for the course Communicative English Skills I (EnLa101) is intended to be given in the first semester for all first-year students joining Ethiopian universities. The module focuses on listening and reading skills and integrates these two skills with speaking and writing activities. The module is prepared to enable you, the student, to communicate in English with acceptable accuracy and fluency by using English appropriately in different contexts. The module aims to develop your English language proficiency through language learning activities designed to help you use English for your academic and social needs. The language learning activities encourage you to learn by doing things in English and by reflecting on the activities you do in each unit. Grammar and vocabulary learning activities are also included in the module (MoE, 2019, p.2).

From the above extract, firstly, it can be observed that the material was poorly edited. It says EnLa 101, but on the title of the course, it says FLEn1011. The objective of the course says, “The module aims to develop your English language proficiency through language learning activities designed to help students use English for their academic and social needs.” Firstly, it clearly indicated that it was designed for social needs, not professional needs. Next, though they

seem designed for academic needs, they are less likely to achieve its objectives from this point, which says your academic needs, because ‘your’ refers to all Ethiopian students who took the courses. However, those who attended the courses work in a variety of departments, each with its own set of English language requirements.

Furthermore, it has been stated that the courses were developed using an integrated-skills approach that seeks to improve students' communication ability. However, though the first course (Communicative English Language Skills I) focuses primarily on listening and speaking skills, it is practically less likely to meet students' academic needs as intended. A recent study by Chemir and Kitila (2022) revealed that current English language courses (communicative English skills I and II) do not stimulate first-year students to improve their academic language ability and continue their studies. For example, the general introduction for communicative English skills I (*FLEn 1011*) states as:

There are five units in this module. Unit 1 is on study skills, and the activities in this unit will encourage you to make notes from lectures and use them for revising your courses. Unit 2 is about health and fitness in which you will listen to a story about a sports star and discuss the benefits of health and fitness. Unit 3 is on cultural values and in this unit you will read about the culture of one cultural community in Ethiopia and listen to a lecture on cultural tourism. In addition, in Unit 3 you will talk about cultural values and write about cultural values that you are proud of. In Unit 4 you will listen to, read and talk about wildlife. Unit 5 deals with population and you will listen to a talk on population density, and you will read about the population of one country. In Unit 5 you will also study the collocations of ‘population’ and the form and uses of the active and passive voices. At the end of each unit there are sections which require you to reflect on the activities you have performed and to self-assess your level of achievement of unit objectives (MoE, 2019, p.2).

From the above extract, except unit one, which appears to help students’ academic studies, the rest will not relate to both academic and professional needs. However, students in different fields

may have different needs, interests, and background knowledge and skills in the English language. Chemir and Kitila (2022) argue that while developing English courses for university students in Ethiopia, course designers must pay special attention to the students' needs. In unit one of communicative English skills I, the first listing topic was the only topic which seems related to student academic field of study because it explains how to attend lecture and how to take note during lecture. In general introduction for communicative English skills I (*FLEn 1011*) also states as:

It is believed that you will successfully complete this module, which is followed by another module in the second semester for the course Communicative English Skills II (EnLa102). Communicative English Skills II will focus on speaking and writing skills and will, of course, integrate these skills with listening and reading activities. The writers of the modules believe that both courses will help you improve your English language proficiency and be successful in your academic career and social life (MoE, 2019, p.2).

This extract provides a general description of module 2 of communicative English skills II (*FLEn 1012*). Like module one of Communicative Skills I, the writers of the module designed module II believing that the courses would help students improve their English language proficiency and be successful in their academic career and social life. One can raise two big questions here. The first question is how could it help students' academic careers, as it was prepared for all first-year Ethiopian university students? Because all Ethiopian universities' fields of study do not have similar academic careers. The next question is: What about professional life besides social life? Thus, it can be understood from the objectives of the module that needs analysis for the English language of students in an Ethiopian higher education institution was not conducted.

The other thing which can be observed from the above extract is that though it says the second module focuses on productive skills, it has no difference with module one except missing the listening section and adding the speaking section. It appears generally from the material that both the speaking and the writing section was added as a sample rather than equipped students with necessary English language skills. For example. Sample writing activities from communicative English skills I was quoted as follow:

A sample writing activities of communicative English skills I teaching hand out:

Activity 1.1.4: Post-listening

1. Write a paragraph of about 100 words explaining some of the problems you face when you listen to a lecture. Before you start writing the paragraph, plan the content of your paragraph in an outline form, write your paragraph based on your plan, and revise and edit it before you read it to a neighbor or to the whole class. You can also give your paragraph to a classmate who can give you feedback on the language of your paragraph (MoE, 2019, p.9).

This may be intended to teach writing skills depending on the context of listening text provided. Entire the whole units of this module, writing was presented in similar way. The next writing part of this module is after reading section in the context of the reading text. For instance, see the next extract.

Sample writing activity two:

Activity 3.4.3: Post-reading

1. Write a paragraph of about 120 words describing a couple of cultural values you are proud of or you uphold and explain their importance to society.

(MoE, 2019, p.45)

As indicated in the introduction of the module, the main focus of the communicative English skills I were more receptive skills than productive skills. It might be because of this that there are two parts that help students practice the skills. They are post-listening at the end of the listening section and post-reading at the end of the reading section, and there is no speaking section at all. Though the second course (communicative English Skills II) focuses on productive skills (speaking and writing), they are practiced to a limited extent in this course, whereas additional speaking and writing lessons are intended to be included in each unit. However, instead of

simple instructions that order students to write a paragraph, there is no guidance that indicates how to write a paragraph throughout the module, as shown in the sample extract above.

Even for general purposes, students might need to learn how to write topic sentences, how to write supporting sentences, how to write concluding sentences, and how to organize ideas, as these students came from high school, where writing skills get less or no emphasis. Regardless of the importance of Basic English language skills, students' writing performance is required to complete their studies in Ethiopian universities where English is taught as a foreign language. According to Tewodross (2016), students' writing must be intelligible, well-organized, and logical in order to meet university-level educations. Although students scored very high in their English studies, they demonstrated complete failure in utilizing their knowledge on the job due to a lack of professional language to deliver their message (Hans & Hans, 2015). Ibrahim (2020) also said that medical students at the faculty failed with basic competences like listening and communicating.

The researcher began observing the problem while giving communicative English skills courses for health science college students (public health officers, nurses, and midwifery) and others. The health science students outperformed others, but they did not attend the English class until the instructor forced them. As an instructor, the researcher attempted to inquire informally with some students about why they did not attend the English class, despite the fact that they performed well in English. They said that the course material contained just what they had learned in high school and that they could not learn anything new. Hence, the researcher's interest in the area of English language needs for health science students began as a result of his experience teaching a college of health science students (public health officers, nurses, and midwifery) and others at Samara University, Ethiopia.

These students frequently appeared disinterested and unmotivated to learn English, which was required of all first-year university students in Ethiopia. Some of them said that they had studied everything in their high school English class; others stated that they needed to acquire English that was relevant to their field of study; and yet others needed English to help them comprehend new terminology. The researcher realized that this situation could happen due to a lack of investigation of students' English language needs because the students themselves seem aware of the type of English language needed in their field of study rather than learning English to know

the language. This is the first instance that inspires the researcher to conduct a study investigating health science students' English language needs.

Besides, literature indicates that teaching and learning English as a foreign language (EFL) at the tertiary level should be provided for specific situations or purposes for which the language may be needed (Hutchinson and Waters, 1987; Dudley-Evans and St. John, 1998; Long, 2005; Fortanet-Gomez and Raisanen, 2008; Basturkmen, 2010; Reinders et al., 2019; and Ur & Ur, 2012).

However, the communicative English courses delivered to all first-year Ethiopian higher institution students are alike. From the researcher's experiences, however, the courses in use may not meet either health science students' academic needs or professional needs. The researcher also heard several complaints from instructors saying, "Rubbish courses." This can indicate that the courses were designed without investigating the students' English language needs. Long (2005) argues that a general English course is possibly English for no purpose if it teaches too much language like vocabulary, skills, registers, or styles that several learners do not need.

The researcher tried to find out foreign and local studies conducted on the problem. However, few PhD studies conducted abroad and few MA studies conducted locally. `

Ali-Hussein (2004) conducted research to develop a methodological framework for the creation of foundational language programmes for students at Oman's technological colleges. The research also sought to give a framework for including needs analysis into the NA from the beginning. This study is different from the present study as it was needs analysis of college of technology students, not health science students. Abdullah (2005) also conducted a case study to evaluate the needs of ESP learners for practical English communication in the medical profession, with a focus on first-year students at the Faculty of Medicine at the University of Aden in Yemen. His study focused on sociolinguistic needs rather than target needs. Alfehaid (2011) conducted study for the development of the existing English for Specific Purposes (ESP) course at Saudi health sciences student institutions based on a needs assessment and course evaluation. The study focused on the importance of the four basic skills and the extent importance of ESP, but the present study focused on learners' English language needs(necessity, lack and wants) which help design appropriate course accordingly.

Farhat (2012) conducted research on the teaching and learning of English for Medical Purposes (EMP) in a Syrian university (Tishreen University) and investigated the inherent contradictions in the position of EMP in an Arab-medium university by drawing on socio-political and economic factors shaping English language education policy in Syria. The study focused on the effect of English as a foreign language in doctor identity formation and the process of becoming a doctor. This study seemed to go above and beyond academic and professional need.

Abuklaish (2014) investigated the language needs of undergraduate science students in Libya, and his findings revealed that English is typically required in the scientific field. This study was undertaken to assess the English language needs of scientific students in general, whereas the current study studied the English language needs of health science students. Chatsungnoen (2015) investigated the English language needs of students and important stakeholders for an English for Specific Purposes (ESP) programme for food science and technology students at Agriculture University, Thailand. However, the purpose of this study was not to address the English language demands of health science students.

However, the researcher has not come across any local studies done at the PhD level in the Ethiopian setting, with the exception of Silesh and Tamene's (2022) study on the importance of academic language in Ethiopia. This study focuses on the needs analysis of English for Academic purposes for university students in various disciplines of study, but the current study focuses on the English language academic and professional needs of health science students to assist develop appropriate courses. A few MA theses were done on the area of the problem: Abiy Yigzaw (1990) did a research to assess the communication needs of Addis Ababa high schools in terms of language skills and language activities, and discovered that language skills and language activities are the most prevalent communicative needs of high schools. He himself suggested that his research was simply a preliminary step in developing a course.

Mohammed Seid (2007) carried out the study to identify the English language needs of freshman diploma students of the police students. His Study indicated that Cadets have high English Language needs in the three domains (skills, activities and micro skills). He recommended giving special emphasis to the kind of English that serves Cadets' future career. Tagel Elias (2007) investigated the aim and learning needs of electrical students at Dilla TVET College with the goal of developing criteria for constructing an acceptable English course. Whereas Habtamu

Desta (2008) objected to identify the English language needs of the fine art students at Mekelle College of Teacher Education (MCTE). Belachew Zerihun (2008) investigated the English language needs of construction TVET trainees, focusing on Entoto TVET College. These four studies were conducted on Student' English language needs and recommended ESP for the field they studied, but studies were not about health science students' English language needs.

Biniam Teka, et al. (2015) studied English for University students in Ethiopia focusing on implication of the needs analysis at Haramaya University. This study did not specify fields of study. Teshager Mola (2015) also conducted study on a need assessment of ESP to adult English language learners at Sandford International School Adults' Evening EFL classes. His reason for the studies was mainly to know why Sandford International School Adults' learners dropout from their EFL classes. Both studies recommend ESP for higher institution, but they are not about health science students.

Tufaro Bunkure (2009) investigated the English language needs of third-year students at Shashamane Health Science College. His major objective was to find more vital language skills for third-year students in order to succeed academically, in their future careers, and in their personal and social lives. This study differs from the current study in that it focuses on identifying more important language skills, whereas the current study focuses on English language needs that help health science students function in both academic and professional settings, with the aim of designing appropriate course materials. Minasie Gessese (2009) also investigated students' language needs in private medical colleges in Bahir Dar. His primary goal was to identify medical students' language needs in Bahir Dar town in connection to ESP principles, current textbooks, instructor opinions, executive bodies of the Bureau of Education, and Medical College. The study, however, failed to take into account the demands of the target situation.

In sum, health science students' English language needs for their academic and their future professional career so as to design course material accordingly seem to be not studied in Ethiopians higher education institution context. To summarize, there are contextual, literature, and methodological gaps that must be addressed in this study.

Therefore, this study attempted to answer what health science students need to operate well in English as a means of learning their fields of study and a medium of communication in their future professional contexts. Then, the findings obtained from this study could help to design appropriate course materials that match the students English language needs in both academic field of study and future profession.

1.3. Objectives of the study

1.3.1. General Objective

The general objective of this study was to investigate the English language needs of health science students.

1.3.2. Specific Objectives

The study specifically aimed to:

- Find out the English language skills frequently needed to carryout activities in health science students' academic study.
- Find out the English language skills frequently needed to carryout activities in health science students' future profession.
- Identify the health science students' English language learning preferences.
- Examine the health science students' English language gaps.
- Describe the way language and skills (professional communications) are used in target situation.
- Identify sort of language topics that health science students need to function adequately, both in their academic and professional career.

1.4. Research Questions

Based on the specific objectives, the specific questions that the study intended to answer were:

1. What are the English language skills frequently needed to carryout activities in the health

- science students' academic study?
2. What are the English language skills frequently needed to carryout activities in the health science students' future profession?
 3. What are the health science students' English language learning preferences?
 4. What are the health science students' English language gaps?
 5. How language and skills (professional communications) are used in target situation?
 6. What sort of language topics do health science students need to function adequately, both in their academic and professional career?

1.5. Significance of the Study

This study aimed to investigate health science students' English language needs so as to help design course material framework accordingly. The findings of this study will assist educators and course designers in designing successful English language courses that will improve the communication abilities of health science students. Furthermore, the study will assist in identifying the English language gaps that health science students have when learning their academic study, as well as how these gaps might be alleviated. The findings of this study will also benefit both teachers and students by providing insights into the most successful ways of teaching and learning English in the health science fields of study.

The study also aims to assist students in performing tasks effectively in their field of study regardless of language difficulties, as well as functioning and communicating successfully in their future career. Furthermore, it may increase learners' interest in attending English language courses and assist them in improving their English language skills. These can provide health sciences students with insights into the language skills they will need in their future jobs, helping them to prepare themselves with the necessary English language skills before joining the real world of health profession (health care or hospitals).

1.6. Scope of the Study

This study was aimed to investigate the English language needs of health science students at Samara University which is located in Ethiopia's Afar Regional State. The research was limited

to the major academic programmes offered by the health science college which include public health officer, nursing, and midwifery.

The central focus of the study was on identifying the frequently used English language skills (listening, speaking, reading and writing) with the focus of academic study and future professional context. It also identified the students' current English language proficiency levels and analyzed the students' English language lacks which could be expected to be included in the future course design. It also addressed how students interact with English in the context of lectures, Seminars, communicative English skills' course contents, patients' case history writing, patient communication and clinical documentation.

The study also focused on the relevance and effectiveness of the current communicative English language skills courses in meeting students' academic and professional needs. Multiple participants: ELT instructors, major subject areas instructors of Samara University and health professional in Dubti general hospital were participated to provide relevant data of the English language needed and the expectations for English language competences in both academic and professional settings.

Institutionally, the study was limited to Samara University and did not cover other Ethiopian higher Education institutions. It also focused on undergraduate education. Even though the study recognized the larger sociolinguistic context of Afar Region, it focused on academic and professional English rather than general English proficiency or social language use outside of academic and clinical settings.

By focusing on this specific institutional and disciplinary context, the study provided detailed, context-sensitive recommendations for course development, language support program, and pedagogical strategies that are tailored the English language needs of Samara University's health science students.

1.7. Limitation of the Study

This study of health science students' English language needs is an important area of research that tries to better understand their language requirements. The study is significant because it helps to identify health science students' English language needs and gives insight on how to enhance the course design to better match the needs of the students.

However, like any other research, this study contains limitations that must be acknowledged and addressed. The study was limited to audio recording rather than audio video recordings. However, because the majority of the instructors were unwilling to be video recorded, audio recordings and field notes for unrecorded actions were taken throughout the classroom observation. The study also did not take practitioners' and patients' conversations into account. Video recording practitioners taking patients' case histories in the local language (Afaraf or Amharic) and writing them in English may have an influence on students' use of the skills and courses development.

The other limitation was the assessment of students' present language skill level. A paper-based exam (PBT) or paper-based TOEFL was administered to health science students to determine their present level of language competence. There are two types of TOEFL: internet-based (iBT) and paper-based (PBT). Though (iBT) is now given in many locations across the world, the researcher was obliged to employ PBT over iBT due to a lack of adequate internet connectivity at the site of the current study. If the current internet-based TOEFL (iBT) had been implemented, students' speaking capabilities at different levels of linguistic ability might have been clearly identified.

1.8. Definition of Key Terms

Some words or phrases that are used in this study might have multi definitions literally, but their specific definitions as they are used throughout this study are stated as follows:

Health science students - refers to department of public health officer, Nursing and midwifery students

Needs – Needs refers to health science students’ English language needs for their academic study as well as their professional career. Particularly, in this study, it indicates necessities, lacks and wants.

Present situation - refers to health science students’ current English language abilities and their English language gabs in doing activities in their academic field of study as well as in their future health profession.

Target situation - indicates English language needed in academic field of studies and in future health profession.

1.9. Organization of the Thesis

This study is organized into five chapters excluding references and appendices. The first chapter is an introduction. It includes background of the study, statement of the problems, objectives of the study, significance of the study, scope of the study, limitation of the study and definition of key terms. The second chapter presents a literature review that covers needs, needs analysis, reasons for conducting needs analysis, ESP, course design, approach to course design, ESP and English language skills, theoretical framework and conceptual frame work. The third chapter discusses the research design, sampling methods, research participants, research instruments, validity of the study, reliability of the study, trustworthiness of the study and ethical consideration. This chapter also describes the summary of the pilot study and the key insights gained from the study, which assisted the researcher in making modifications to the instruments and processes utilized in the main study. Chapter 4 presents results, and chapter 5 describes discussions. Chapter 6, the last chapter of this thesis, includes the summary, conclusions, recommendations and implications for future research.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0. Introduction

This chapter provides a brief overview of the literature related to this study. It begins with a definition of needs in the context of this study. This will be followed by a discussion of students' English language needs. It focuses on the definitions of needs, types of needs, reasons for conducting need analysis, and how need analysis is conducted. It also discusses English for a specific purpose, course design, and course design approaches, as well as medical students' English. Finally, the chapter will describe the needs analysis models that serve as a conceptual framework for the current study.

2.1. Definition of Needs

Different scholars give various definitions of needs, and most of them describe in terms of needs analysis in language learning. Some of the prominent definitions are reviewed as follows.

“Needs analysis is professional information about the learners: the task and activities learners are/ will be using English for target situation analysis and objective needs,” (Dudley-Evans and St John, 1998, p.125). Hyland (2006) clearly identifies needs and need analysis. He states that needs is an umbrella term which includes learners’ goals and backgrounds, their language proficiencies, their reasons for taking the course, their teaching and learning preferences, and the situations they will need to communicate in, whereas needs analysis is the process of establishing what these particular needs are in order to develop a sensible course. That is it is the techniques for collecting and assessing information relevant to course design.

While, Hutchison and waters (1987) express needs in two concepts: target needs and learning needs. Target needs indicate what the learner needs to do in target situation, and again, they categorize it in to necessities, lacks and wants. The second point is learning needs. This refers to what the learner needs in order to learn. These are learners’ motivation to study a foreign language, future career, interests, and time available. Hutchison and waters (1987) list target needs (necessities, lacks, and wants as follows.

A) Necessities

Necessities can be the type of needs determined by the demands of target situation. In other words, it is what the learner is obliged to know so as to perform the target situation effectively. They exemplify that a businessman or woman is expected to understand business letters, to communicate effectively at sales conferences, to get necessary information from sales catalogues and so on. In addition, he or she will perhaps need to know the linguistic features such as discourse, functional, structural; lexical which are used in the situation identified. Such kind of information is easily obtained through observing situations learners need to function analyzing the constituent part of them.

B) Lacks

Lacks refer to the current proficiency of the learners. This is about learners' prior knowledge and is used to identify which necessities the learner lacks. Nation and Macalister (2010) also claim that lacks is a significant part of needs analysis which helps to identify where learners are at present.

C) Wants

Wants answer the question of what the learners wish to learn. Hutchison and waters (1987) point out that it is an awareness of need that determine the ESP situation. They describe that awareness is a matter of perception which is perhaps differ depending on one's stand point.

Similarly, Nation and Macalister (2010) explain needs as making distinction between present knowledge, objective needs and subjective needs. They generally indicate lacks as present knowledge, necessities as required knowledge and wants as subjective needs.

According to long man dictionary of Richards and Schmidt (2010), need analysis in language teaching and language programme design is the process of deciding the needs for which student or a group of students requires a language and arranging the needs according the priorities. They indicate needs analysis and needs assessment as synonymous term. They state that in need assessment both subjective and objective information is obtained through questionnaires, tests, observation.

Similarly, Graves (2000) describes needs assessment as a systematic and ongoing process of gathering information about learners' needs and preferences, interpreting that information, and then making course selections based on the interpretation to suit those needs. According to Dudley-Evans and St. John (1998) needs analysis is a system of determining what and how of the course. Richards (2001) defines needs in terms of a linguistic insufficiency as the gap between what a learner can and should do in a language. He also describes need analysis as techniques for gathering information about students' needs. A very obvious and basic definition of need analysis is the systematic gathering and analysis of all information essential for establishing and evaluating a viable curriculum (Brown, 2016).

In general, the above researchers and scholars define needs as students' desires, demands, interests, goals, expectations, motivations, reasons for taking the course, learning constraints, awareness of their language needs, their language proficiencies, and necessities lacks and wants of learning the language. However, this study focuses on the most prevalent definitions: needs in terms of necessities, lacks, and wants of learning the English language so that the student do activities adequately in their field of study regardless of language barriers and function and communicate efficiently in their future profession.

2.2. The Basic requirement for Needs Analysis

“Need analysis is the corner stone of ESP and leads to a much focused course,” (Dudley-Evans and St John, 1998, p. 122). They state that need analysis is the progress which helps instructors revise the syllabus, verify students' progress and evaluate effectiveness of teaching method and strategies. Needs assessment is conducted because learning is not merely a matter of learners absorbing pre-selected knowledge which the teachers gives them rather it is a process in which learners and others can and should be involved (Graves, 2000). He describes that since needs are multi- faceted and changeable, learners reflect on their learning, identify their needs, gain a sense of ownership and control of their learning when needs assessment is used as ongoing part of teaching.

Richards (2001) describes six main benefits of needs analysis in Language teaching. They are: 1) Finding out what language skills a learner needs so as to perform a particular role, for instance, sales manager, tour guide or university student; 2) deciding if an existing course adequately

addresses the needs of potential students; 3) determining which students from a group are most in need of training in particular language skills; 4) identifying a change of direction that people concerned feel important; 5) identifying a gap between what students are able to do and what they need to be able to do; 6) obtaining information regarding a particular problem students are experiencing. According to Basturkmen (2008), ESP has helped language learners cope with linguistic aspects or build the abilities required to perform in a field, career, or job. Hence, the researcher considered all these points very crucial for the present study.

All of the benefits stated 1-6 above were directly or indirectly addressed in the particular aims of this study, which sought to explore health science students' English language demands for their academic field of study and future career. Some of the tools, such as the questionnaire, were adapted for this study from Richards (2001), as they are relevant to the objectives of the current study. According to Nation and Macalister (2010), instructors must always ask themselves questions about needs analysis, such as if the subject is too difficult for their students. Is this exercise going to teach my students anything new, and will everyone in the class be able to handle it?

2.3. When Should a Need analysis be conducted?

A needs analysis can be conducted before, during, or following a language programme. Richards (2001) states that needs analysis can be conducted prior to, during or after a language program. He further explains that “a priori” approach to need analysis requires long-term planning, adequate time and resources; however, he suggests that long-term planning is not an option. The next is that need analysis is conducted as the party of the delivery of the course, and the information obtained during the teaching of the course is utilized to shape goals, content, and teaching approach. Other option is that need analysis is widely conducted after completing the course, the information obtained is evaluated to derive a more comprehensive understanding of learners' needs, which is utilized for assessing and developing the programme (Richards, 2001).

This study was conducted in a setting where ESP courses were not available, but after completing communicative English language skills courses known locally as "communicative English language skills I" and "communicative English language skills II." This was meant to

acquire vital information that would help in establishing a more thorough picture of learners' English language needs.

2.4. How Should a Need analysis be conducted

According to Nation and Macalister (2010), questionnaires, personal interviews, collecting and analyzing exam papers or text books, observation (e.g., following a learner through a typical day), informal consultation with teachers, and learners, and tests are tools used to obtain information about objective needs, whereas information about subjective needs is gathered through learner self-assessment using lists and scales, questionnaires, and interviews. According to Basturkmen (2010), throughout the need analysis process, the language and skills that the learners will use in their intended professional or vocational employment or study domains are recognized and taken into account. Things to examine here include the learners' current level of knowledge, their assessment of their needs, and the practical possibilities and restrictions of the educational situation. The information gathered throughout this procedure is utilized to determine the course's content and methodology. Basturkmen (2010) provides the five aspects that are considered in the needs analysis process.

1. Target situation analysis: identifying the tasks, activities, and skills for which learners will use English; what they should ideally know and be able to do.
2. Discourse analysis: Describe the language used above.
3. Current situation analysis: identifying what the learners know and don't know, as well as what they can and cannot perform in relation to the goal setting needs.
4. Learner factor analysis: identifying learner characteristics such as motivation, learning style, and perceived requirements.
5. Teaching context analysis: Identifying environmental impacts

Richards and Schmidt (2010) also list four points needed to obtain information while conducting needs analysis. They are: the context in which a language will be used and who will use it; the goals and purposes for which the language is required; the mode of communication that will be employed (written, verbal, formal and informal) and the needed degree of proficiency. Hutchinson and Waters (1987) present a needs analysis framework that specifies what

information the course designer gathers from needs analysis such as target situation analysis and learning needs analyses.

2.4.1. Target situation analysis

In a target situation analysis framework, the basic questions are: why the language is needed, for example, for study, for job, for training, for a mix of these, or for other purpose like status, examination and promotion? How will the language be utilized, for example, in terms of medium (speaking, writing, reading), channel (face-to-face telephone), and kind of text or discourse (academic texts, lectures, casual discussions, technical manuals, and catalogues)? What are the content areas? For example, medical, biology, architecture, shipping, commerce, or engineering; level: technician, artisan, postgraduate, or secondary school? Who will the learner use the language with: native speakers or non-natives? What is the receiver's degree of knowledge: expert, layperson, and student? What is the connection between the learner and the receiver: colleague, teacher, customer, superior, or subordinate? Where will the language be utilized, physical environment such as office, lecture, theatre, hotel, workshop, library; human context like alone, meetings, demonstrations, on telephone and linguistic context e. g. in own nation or abroad? When will the language be used: concurrently with the ESP course or later; regularly, seldom, in tiny quantities or in huge chunks? (Hutchinson, Waters, 1987).

2.4.2. Learning needs analysis

According to Hutchinson and Waters (1987), a popular question for determining learning needs is: Why are the students attending the course? That is, whether it is mandatory or elective; if it is for obvious need or not; whether status money or advancement are involved; and what learners believe they will obtain. How do students learn? These include the learners' learning background, their understanding of teaching and learning, the methodology they are interested in, and the strategies that motivate them. What resources are available? Examples include the quantity and professional competency of instructors, teachers' attitudes about ESP, teachers' knowledge of and attitudes toward subject matter, tools, aids, and chances for out-of-class activities. Who are the learners? These are about age, gender, and nationality, prior knowledge of the learners about English, their subject knowledge, their interest, their socio-cultural background, the teaching

approach they are accustomed to, and their attitude toward English or the culture of the English-speaking world. Where will the ESP course take place? For example, is the environment pleasant, dull, noisy, or cold? When will the ESP course take place? These include the time of day, every day, once a week, full-time/part-time, concurrent with need, and pre-need (Hutchinson, Waters, 1987).

Dudley-Evans and St John (1998) also put an essential framework for describing the issues involved in needs analysis. They include the following aspects that address what is involved in gathering information for needs analysis: Professional information about the learners: They will use English for tasks and activities including target situation analysis and objective needs. Personal details about the learners: Characteristics that may influence how students learn, such as previous learning experiences, cultural knowledge, motivations for taking the course and expectations of it, and attitude toward English: wants, means, and the topic requires.

English language information of the learners: what their existing abilities and language use are—present situation analysis—which allows us to examine the learner's deficiencies: The gaps between the third and first sentences suggest a lacks. Language learning information on successful techniques of acquiring abilities, with learning demands indicated in the fourth phrase. Professional communication information on the first phrase above demonstrates an awareness of how language and skills are applied in the target setting. That includes language, discourse, and genre analysis. What may be expected from this course? Also included is information on the setting in which the course will be held, namely mean analysis.

Dudley-Evans and St John (1998) also give the sources and instruments utilized to collect this information. They list the sources as Learners, persons working or studying in the area, ex-students, pertinent papers, clients, employers, colleagues, and ESP research in the field, and the instruments used to collect information from these sources are questionnaires, study of actual spoken and written materials, discussions, structured interviews, observations, and assessments.

2.5. English for Specific Purpose (ESP)

2.5.1. The definition of ESP

Various definitions are given to English for specific purposes (ESP). Some researchers characterize ESP as a more specific approach of learning or teaching English. They define English teaching as teaching English for academic purpose, teaching English for professional or vocational purposes, or teaching English to non-native speakers of English who are learning English for specific purposes. Others describe ESP as just teaching English for any specific purpose.

Hutchinson and Waters (1987), for example, define ESP as an approach to language teaching, course design, and material production in which all decisions about content and methods are based on why learners are learning. They clearly state that ESP is an approach rather than a product. It is not a specific sort of language technique or teaching material, but rather an approach to language instruction based on the needs of the learner. Robinson (1991) defines ESP as an effort that involves education, training, and practice while drawing on three key realisms of knowledge: language, pedagogy, and students'/participants' specific field of interest. According to Richards and Rodger (2001), ESP is a movement that addresses the language needs of learners who require English to perform specific roles (e.g., student, engineer, nurse) and who must acquire content and real-world skills through the medium of English rather than mastering the language for its own sake.

In contrast to previous researchers, Durley-Evan and St. John (1998) divide ESP into two categories. They are both absolute characteristics and variable characteristics. In terms of absolute characteristics, ESP is defined as meeting the specific needs of learners; employing the underlying methodology and activities of the discipline it serves; focusing on language (grammar, lexis, and register), skill, discourse, and genre relevant to these activities; and employing the underlying methodology and activities of the discipline it serves. In terms of variable characteristics, ESP may be linked to or tailored for specific fields; ESP may use a different approach than general English in specific educational fields; and ESP is most likely created for adult learners who are either attending a postsecondary university or working in a

professional setting, but it can also be for secondary school students (Dudley-Evans and St. Johns, 1998). English for specific purposes (ESP), not to be confused with specialized English, is a branch of English language instruction that includes business English, technical English, scientific English, English for medical professionals, English for waiters, English for tourism, English for art purposes, and so on (Hans & Hans, 2015).

2.5.2. Origins of ESP

Several researchers have written on when and why ESP arose in the English language educational setting. For example, Dudley- Evan and ST Johns (1998) claim that teaching English for specified purposes (LSP) began throughout the Greek and Roman empires, while Strevens (1977) claims that LSP has existed for at least a half-century. However, Hutchinson and Water (1987) discuss three major explanations for the arrival of ESP, with the first two historical eras serving as one. The first is the end of World War II in 1960. This is owing to an unanticipated and significant increase in scientific, technological, and commercial activity on a global scale. In particular, the economic power of the United States in the postwar world contributed to English being the worldwide language. The next is the oil crisis of the early 1970s, which caused Western money and knowledge to migrate into oil-rich countries. Then, English became the primary language of communication. This put pressure on the language teaching profession to provide the necessary results. Hence, English as a subject was limited to the preferences, needs, and expectations of people rather than language teachers (Hutchinson and water, 1987).

The second factor for ESP's birth was a language revolution. That was innovative pioneers in linguistics began to focus on how language is utilized in real conversation rather than describing the features of language in conventional languages (Hutchinson and water, 1987). As a result, they claim that in the late 1960s and early 1970s, there were several attempts to characterize English for science and technology (EST).

Their last argument for the creation of ESP was the emphasis on psychology over language. That meant paying greater attention to how learners acquire language and the distinctions between how language is acquired rather than focusing just on the manner of language delivery. As a result, students were expected to apply a variety of learning techniques, abilities, and schemata,

as well as be driven by a variety of needs and interests. As a result, focusing on the needs of the learners has become an essential strategy for disseminating linguistic knowledge. As a result, creating a particular course to fulfill these people's needs was a logical occurrence. In short, according to Hutchinson and Waters (1987), the three main reasons for the emergency of ESP are the demands of a new world, a revolution in linguistics and the focus on the learners. According to Basturkmen (2010), ESP gained popularity during World War II and the shift to the scientific and technological world in the mid-1960s.

2.5.3. The Development of ESP

Since its beginning in the 1960s, ESP has clearly made three major phases of development, but now a fourth and fifth phase are emerging (Hutchinson and water, 1987). They discuss how ESP has progressed at varying rates in different nations and is currently operational. Hutchinson and Water (1987) describe five stages in the formation of ESP. The first is the idea of special language, specifically register analysis. This stage occurred primarily in the 1960s and early 1970s. The research sought to discover the grammatical and lexical properties of these registers. The syllabus was subsequently based on these language traits. The aim was to create a syllabus that prioritized language forms that students would encounter in their science studies while placing low priority on forms they would not encounter. According to Hutchinson and Water (1987), ESP researchers of the period, like as Ewer and Hughes-Davies (1971), discovered that school textbooks disregarded several of the language structures typically present in science writings, such as compound nouns, passives, conditionals, and anomalous finites (i.e. modal verbs). As a result, they decided that the ESP course should prioritize these kinds.

The second is beyond the sentence: rhetorical or discourse analysis. ESP's first stage of development concentrated on language at the sentence level, while the second phase switched attention to the level above the sentence. Register analysis has previously concentrated on sentence syntax, but now the emphasis has switched to understanding how sentences are joined in speech to form meaning. The study's aim was to detect organizational patterns in texts and describe the language mechanisms by which these patterns are conveyed. These principles were then used to create the syllabus for ESP courses. Typical discourse-based teaching resources

taught students to spot textual patterns and discourse markers, mostly through text-diagramming activities.

The third is target situation analysis. The existing information was taken and put on a more scientific foundation by developing processes for linking language analysis more closely to learners' motivations for learning. The ESP course is designed to help learners perform sufficiently in a target setting so that they can utilize the language they are learning. As a result, the ESP course design process should begin with selecting the target circumstance, followed by a thorough investigation of the situation's linguistic features. The ESP course syllabus will be based on the highlighted attributes. This process is usually known as needs analysis. Hutchinson and Water (1987) argue that John Munby's (1978) Communicative syllabus design method is the best explanation of target situation analysis. The Munby model generates a complete profile of the learners' needs in terms of communication, language skills, functions, and structures. The target situation analysis step was an important innovative for ESP.

The fourth stage is skills and strategies. The fourth stage of the ESP examines deeper than the surface (the language itself). It focuses on the mechanisms that drive language use. The basic premise behind the skills-centered approach is that underneath all language usage are universal reasoning and interpreting processes that, independent of surface forms, allow us to derive meaning from dialogue. Instead than focusing on the surface form of the language, this emphasis on the underlying interpretative methods that allow the student to cope with the surface forms, such as predicting the meaning of words from context, utilizing visual arrangement to detect the kind of text, and leveraging cognates (i.e. words that are similar in the mother tongue and the target language). This approach does not require a focus on certain topic registers since the underlying procedure is not specific to any subject register. This approach focuses on reading and listening strategies. The typical tasks encourage students to focus on and understand how meaning is created and extracted from written or spoken speech. According to cognitive learning theories, language learners are considered as thinking creatures who may be asked to examine and explain the interpretative process they use when communicating.

The fifth stage of ESP development is a learning-centred approach. A strong separation has been drawn between language usage and language learning. The stages listed above are essentially weak since they are all dependent on descriptions of language usage. Language use can assist

determine course objectives, but not language learning. As a result, a fully meaningful approach to ESP requires a grasp of language learning processes.

2.5.4. The relationship between ESP and the rest of ELT

Hutchinson and Waters (1987) depict the 'Tree of ELT', indicating that all ELTs have the common feature of being primarily concerned with communication and learning. They argue that ESP differs from other forms of language teaching only in terms of efficacy and efficiency. ESP is a method to language learning that is centered on learners' needs, but it should not be viewed as a product (Hutchinson and water, 1987). They identified the common divisions that occur in ELT: First, there are three divisions in ELT. They are: English as a Mother Tongue (EMT), English as a Foreign Language (EFL), and English as a Second Language (ESL). Then, English as a Foreign Language (EFL) is separated into two major types. They are General English and English for Specific Purposes (ESP). (GE) is taught in elementary, secondary (US: high school), and adult tertiary schools, whereas ESP, the primary subject of this study, is divided into three branches: 1) English for Science and Technology (EST), 2) English for Business and Economics (EBE), and 3) English for Social Sciences (ESS). Each of these subject areas is subdivided into two branches. They are English for Academic Purposes (EAP), English for Occupational Purposes (EOP), English for Vocational Purpose (EVP), and Vocational English as a Second Language (VESL).

For the EST branch, EOP stands for English for Technicians and EAP for English for Medical Studies. Again, for the branch EBE, EAP is English for Economics and EOP is English for Secretaries, but for the branch of English for Social Science, EAP is English for Psychology and EOP is English for Teaching. Hutchinson and Water (1987) do not clearly distinguish between EAP and EOP. They point out that the last branch is not widely used since it is regarded to differ greatly from the traditional humanities-based General English. The figure1.1 below is slightly adapted from ELT tree of Hutchinson and water (1987).

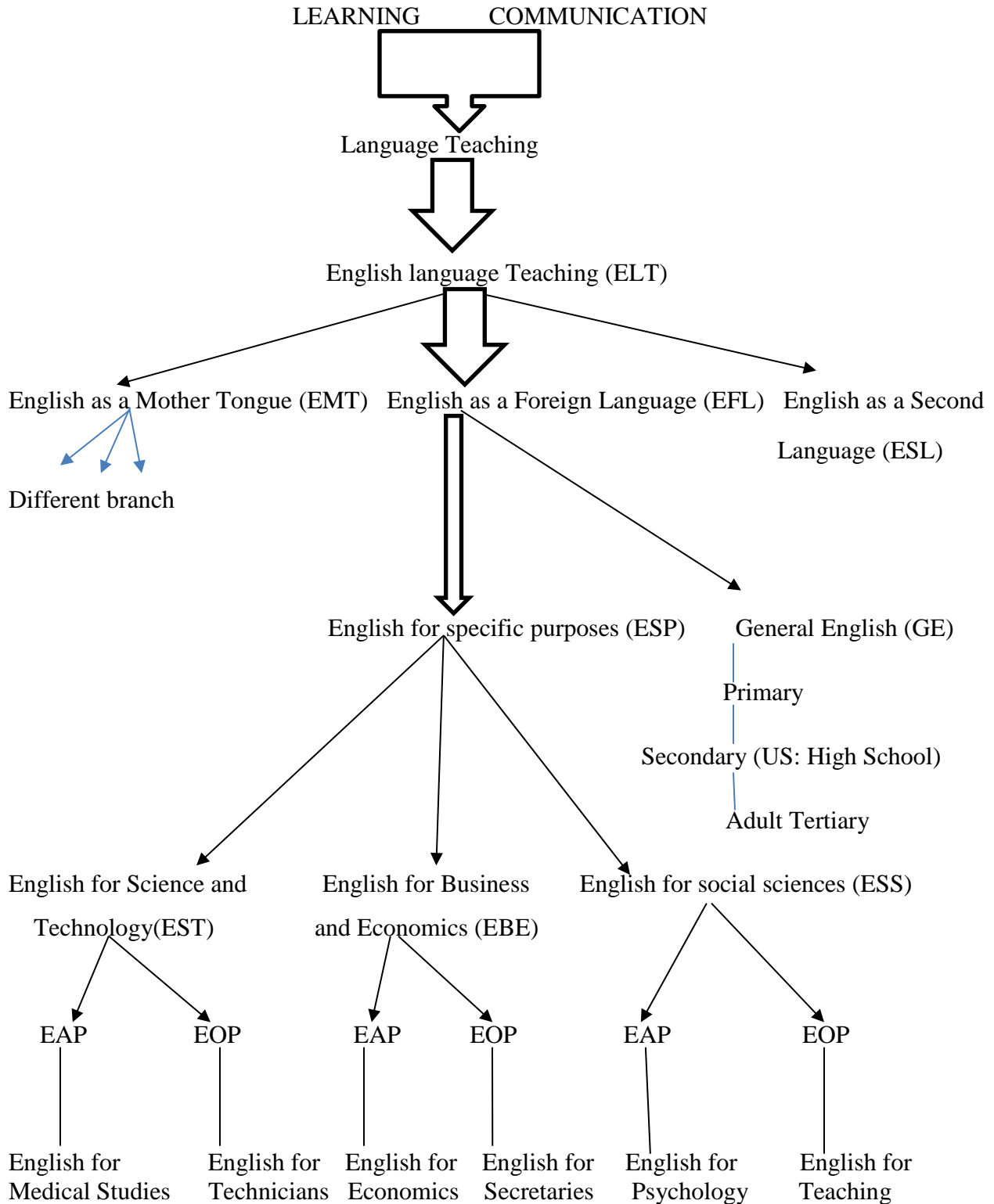


Figure 2.1: The relationship between ESP and other ELT

Though Hutchinson and water (1987) do not indicate a clear-cut distinction between EAP and EOP, Dudley-Evans and St John (1998) put the differences as: English for specific purposes categorized into English for academic purposes and English for occupational purposes. English for academic purposes includes science and technology, medicine, law, management, finance, and economics. English for occupational purpose is divided into two categories: professional and vocational. English for professional purpose is further separated into English for medical purposes, English for business, and so on, whilst English for vocational purposes is classified into pre-vocational English and vocational English (Dudley-Evans and St John, 1998). As a result, the current study focuses on English for academic and professional purpose for health science students, often known as English for Medical purposes.

2.5.5. The Difference between ESP and EGP

In theory, there is no difference between ESP and EGP, but in practice, there is a significant difference (Hutchinson and water, 1987). Though ESP language teaching is centered on the nature of language, learning, and teaching, it differs from General English. According to Hutchinson and Water (1987), the ESP teaching approach is learner-centered, emphasizing learners' needs and objectives, whereas the General English approach is language-centered, focusing on mastering all language skills and cultural characteristics of the English-speaking community. According to Basturkmen (2006), ESP attempts to accelerate learners and direct them to a recognized destination in order to achieve particular goals, whereas General English language education tends to begin from a specific point and progress to an indeterminate one.

Basturkmen (2010) argues that ESP classes should be more successful than ordinary English for a variety of reasons. The first reason is that because ESP courses are tailored to students' interests and needs, they are more likely to generate high levels of motivation. Second, it is believed that learners would be exposed to contents and texts relevant to their job or fields of study. Motivation increases the likelihood that students will learn. Next, ESP programmes are more effective than general ESL courses because they have more specialized aims. Finally, because ESP classes are based on needs analysis, the learning objectives are more specific than in general ESL.

2.5.6. Benefits of ESP

The ESP course is used to help learners perform appropriately in a target situation (Hutchinson and Waters, 1987). They describe the target situation as the context in which the students will use the language they are learning. According to Richards (2001), a key premise of ESP approaches to language is that they offer students with the language they require rather than loading a syllabus reflecting the structure of general English employed in the development of English courses. “ The emphasis in ESP on going from A to B in the most time- and energy-efficient manner can lead to the view that ESP is an essentially practical Endeavour,” (Basturkmen, 2006, P. 9).

Hashim et al. (2014) found that Cambodian academics and students believe there is a need for ESP to address the obstacles encountered by Cambodians who desire to achieve or work successfully in education and certain professions for specific purpose. Hutchinson and Waters (1987, P. 8) says, “Tell me what you need English for and I will tell you the English that you need,” can reveal that ESP is needs-driven, pragmatic, efficient, cost-effective, and functional.

2.6. Course Design

Designing a course is essentially asking the correct questions to provide a persuasive basis for the following phase of syllabus creation, materials writing, classroom instruction, and assessment (Hutchinson and Waters, 1987). They explain that course design is the process of interpreting raw data about a learning needs in order to create an integrated set of teaching-learning experiences aimed at guiding learners to a certain level of knowledge. According to Robinson (1991), course design involves putting theoretical judgments regarding objectives and syllabus into context. Strevens (1977) proposes that ESP course design be based on the selection of elements and features from the language corpus that are important to the designer's attention and students' needs. The next phase in ESP course design is translating the information gathered from the needs (Munby, 1978).

Hutchinson and Waters (1987) provide about fourteen questions that teachers should examine while preparing a course: 1) why should the learner learn? 2) Who will participate in the

process? However, this covers not just students, but also anybody who may have an effect on the process, such as professors, sponsors, inspectors, and so on. 3) Where will the learning occur? 4) What opportunities does the place offer and what limitations; 5) When will the learning occur? 6) How much time is available? 7) How will it be distributed? 8) What should the student learn? 9) What aspects of language will be required? 10) How are they going to be described? 11) What degree of proficiency must be met? 12) What topic areas will be covered? 13) How will the learning be accomplished? And 14), what learning?

In general, all of these issues were grouped into three categories: language description, learning theory, and needs analysis. Language description refers to how a language system is arranged for learning purposes, such as structural, functional, and conceptual. These refer to methods of studying and describing language, not how language items should be described or taught. As a result, these terms cannot refer to an approach or method. An approach or method is driven by a view of learning rather than a view of language. The approach is based on learning theory, which helps us understand how individuals learn (Hutchinson and Waters, 1987).

2.6.1. Approaches to course design

Course design is a process by which the information obtained about learning needs is interpreted in order to build an integrated set of teaching-learning experiences that supply learners with a certain state of knowledge (Hutchinson and Waters, 1987). They highlight that just identifying learners' needs has little value, but it must be evaluated in order to properly create courses accordingly. According to Graves (2000), some components of language course design include establishing assessment objectives, defining content, resources, and approach, and assessment. From these components, needs assessment is the first component followed by asking the questions of what are my students 'needs? And how can I assess them so that I can address them?

Hutchinson and Waters (1987) propose three major approaches to ESP course design. They are language centred, skills-centred and learning-centred. The first two approaches describe the content of ESP course on the analysis of target situation while learning centred approach states to recognize the learning situation.

A. Language Centred course design

The language-centered course design approach aims to create a close link between ESP course contents, teaching and learning resources, and the information gathered from the target situation analysis. According to Hutchinson and Waters (1987), this strategy focuses on the target situation in the course. The stages they suggest for constructing a course using this approach are first, determining learners' goal circumstance and then picking theoretical perspectives of language in parallel. Then, identifying language aspects of the target situation is followed. Next, create a syllabus and then design to demonstrate syllabus items. Finally, evaluation mechanisms will be developed to test the acquisition of syllabus items.

However, this approach is criticized for not considering learners' learning needs, so it is perceived as learner restricted rather than learner centered; it is not flexible and too static, which is against need analysis; and it is based solely on language-centeredness without considering other contributing factors (Hutchinson and Waters, 1987).

B. Skills-centred course design

The skills-centered approach is predicated on the premise that learners possess some abilities and techniques that allow them to interpret and respond to the language input they receive. According to Hutchinson and Waters (1987), this approach views learning as both a component of English language performance and competence, and it offers learners with a process-based rather than an objective-based approach.

Hutchinson and Waters (1987) describe the process of constructing a course using this approach as follows: first, determine the target situation, then analyze the strategies needed to deal in the target situation. The syllabus is then written using theoretical view of language and theoretical view of learning. Then, choose readings and create English language exercises based on the English language skills/strategies outlined in the syllabus. Finally, design an evaluation system and processes based on the English language abilities and methods outlined in the syllabus. Though the skills-centred approach considers the learners more than the language-centred and uses data supplied by the learners to determine their needs and capacities, it is criticized for focusing on the process of language use rather than language learning (Hutchinson and Waters, 1987).

C. A learning-centred approach

This approach was intended to address the gaps between the language-centered and skill-centered approaches to course design (Hutchinson and Waters, 1987). According to Hutchinson and Waters (1987), the learning-centered Approach does not focus on well target situation performance or the competencies underlying the performance, but rather on what is beneath skills that assist learners in acquiring the language. It views course design as a dynamic and negotiated process in which the content is not decided only by the learners' point of view. They argue that what we should examine is not competence itself, but how someone obtains it. Hutchinson and Waters (1987) also point out that the learning-centered approach differs from the more often used learner-centered approach, which is founded on the idea that learners completely control their own learning, but this approach does not yet exist. They have claimed that, while students are totally responsible for what they learn, instructors do have the capacity to influence what they teach.

In general, Hutchinson and Waters (1987) provide seven phases for establishing a learning-centered approach to course design, noting that the learner's perspective should be addressed at any point. Here are the steps: 1) identifying target situation, 2) analyzing target situation, 3) analyzing learning situation, 4) writing syllabus, 5) writing materials, 6) teaching materials, and 7) evaluating learner achievement respectively. Thus, if courses are to be built based on this study, the researcher favors a learning-centered approach to course design.

2.6.1.1. Types of English for Medical Purpose (EMP) Courses

There is a wide range of EMP courses across the world, but there are few extensive reports of these, at least in the international literature (Ferguson, 2012). He has grouped EMP courses based on duration and target audience, medical specialties, skills, genres, and medical situations. Ferguson (2012) describes these several aspects as follows:

In duration (e.g. short intensive vs. longer courses),

The intended audience (e.g. clinicians vs. medical researchers vs. pre-medical students vs. medical students in the clinical phase of their training),

In medical specialties (e.g. cardiologists, oncologists, urologists, etc.),

In terms of skills, genres, and medical contexts (for example, English for doctor-patient consultations, medical conferences, report/journal article writing, and so on).

Quoting Allwright and Allwright (1977, p. 58) Ferguson (2012) provides a list of 12 critical needs analysis checklists for English interaction settings that may be problematic for non-Anglophone clinicians. They are:

1. Quick reading of textbooks, professional journals, and papers for information.
2. Thorough examination of textbooks/journals/papers, etc.
3. Writing papers, reports, or articles in English for publication, symposium, or conference.
4. Communicating with English-speaking colleagues on professional problems.
5. Understanding English-language lectures and papers presented orally at conferences, medical meetings, symposia, and other events.
7. Participating in formal discussions at conferences, for example, by comprehending and contributing to them.
8. Engaging in (i.e. comprehending and contributing to) informal discussions at conferences, etc.
9. Enrolling in post-graduate studies at English-speaking medical institutes.
10. Entertaining or being entertained.
11. Working clinically with English-speaking individuals

2.6.1.2. EMP Course Contents and Activities

It is feasible, and even popular, to create an EMP course around a series of relevant language (for example, medical terminology) (Ferguson, 2012). One of numerous requirements for effective course design in foreign and second language education is the growing emphasis on detailed investigations of learner needs (Long, 2005). Allwright & Allwright (1977), quoted in Ferguson (2012), indicate that a planned sequence of pedagogically beneficial activities with a focus on genuine texts and tasks may contain some or all of the following:

Simulated case conferences: A course member presents a case to a group of doctors (or alternatively the class may read the case report or listen to a recording and take notes). Groups or pairs then establish differential diagnoses and recommend investigations/treatments. During

the conversation, the instructor takes notes on language challenges for future feedback and finally gives the therapeutic remedy based on the source material.

Listen and report: Paired or individual participants listen to a medical discourse, take notes, and report back to another pair who heard a different article.

Read and report: Individuals or pairs read a medical journal article, take notes, and explain their summary for another pair reading a different article.

Listening to a doctor's discourse as a guest speaker.

Preparing and delivering brief talks: These might be based on a case or a medical issue that the participant has already investigated. The teacher may videotape such discussions for feedback.

Role-playing between doctors and patients.

Medical English pronunciation practice in the language lab.

Course content is a collection of exercises organized in a sequence of input, practice, and feedback loops (Ferguson, 2012). Input includes analysis of video-recorded conference presentations with elicitation of features of good and bad presentations, remedial pronunciation work, information on discoursing signaling expressions, assistance with writing abstracts for the end of the course mini-conference, and some grammar and vocabulary work (e.g. for talking to graphs and tables).

Listening in pairs to a recorded medical talk and giving a summary report to another pair, practice in describing/interpreting graphs/tables and using discourse markers, practice in transposing data into visual form and indicating the main points, writing abstracts, giving informal mini-talks, rehearsal of mini-conference talks, and presentations at the mini-conference (Ferguson, 2012). Feedback is recognized as a vitally essential component of the training, so many practice sessions are video or audio recorded for later group or individual feedback, concentrating on language, pronunciation, and delivery style (Ferguson, 2012).

2.7. The syllabus

Hutchinson and Waters (1987) describe a syllabus as a document outlining what students will learn. Noonan (2004) defines syllabus as the selection and grading of materials, whereas curriculum refers to all elements of designing, executing, assessing, and administering an

educational program. According to Richards (2001), syllabi list the content to be covered in a given course from only a small portion of the total school program, whereas curriculum is a very broad term that deals with what students are expected to learn in school and other educational institutions, including instructional planning and implementation.

Curriculum development is primarily required under the idea that educational programmes should be founded on an analysis of learners' needs (Richards, 2001). He stated that needs analysis is an extraordinary and crucial step in educational program design that originated in the 1960s as part of a systemic approach to curriculum creation as well as a component of widespread educational responsibility. Thus, Richards and others' arguments suggest that needs analysis is a prerequisite for curriculum development, syllabus design, and course design.

2.7.1. The role of a syllabus in the course design process.

The role of a syllabus mentioned below is discussed in terms of the approach to course design'

A. Language-centred approach

The language-centered approach focuses on developing a direct link between the analysis of the target circumstance and the content of the ESP course. Hutchinson and Waters (1987) present five phases for designing a course using the language-centered approach. They involve examining the target situation, creating the syllabus, writing and selecting texts to illustrate things in the syllabus, writing activities to practice items in the syllabus, and developing tests to measure understanding of the items in the syllabus respectively. They depict these processes in a figure, indicating that the syllabus is the primary producer of instructional materials in this approach, and that the syllabus clearly determines the whole course.

B. A skills-centred approach

In contrast to language-centered approaches, skills-centered approaches focus on the student rather than the language objects. It provides chances for learners to apply the abilities and techniques that enable them to understand and respond to the language input utilized in the target context through the use of real text (Hutchinson and Water, 1987). They note that the curriculum

is not a prime generator. Quoting Holmes (1981), Hutchinson and Water (1987) give the following stages for course structure.

- i. Identifying and recognizing the English language skills needed in target situation
- ii. Choosing attractive and related texts
- iii. Developing a hierarchy of skills to exploit the text
- iv. Organizing the texts according to the required skills
- v. Preparing activities/techniques to teach those skills
- vi. Preparing a system of assessment to evaluate the skills acquired.

C. The Learning-centred Approach

This approach differs from the two approaches above in that it focuses on the learners and their language use needs rather than the target situation performance or the competences behind this performance (Hutchinson and Water, 1987). They define the learning-centered approach as a process in which learners apply their existing knowledge and skills to make sense of the material presented. As a result, learning involves more than simply teaching language items, skills, and strategies. In a learning-centered approach, the technique must be addressed right from the beginning, rather than merely being added at the end of existing syllabus items and books (Hutchinson and Water, 1987). They argue that in order to do this, the syllabus must be flexible enough to allow methodological concerns such as interests, enjoyment, and learner engagement to impact the content of the whole course design. As a result, this method views course design as a flexible and negotiable process, rather than a one-sided approach. Hutchinson and Water (1987) divided the syllabus design process into two levels to establish a learning-centered approach, as shown in the figure below.

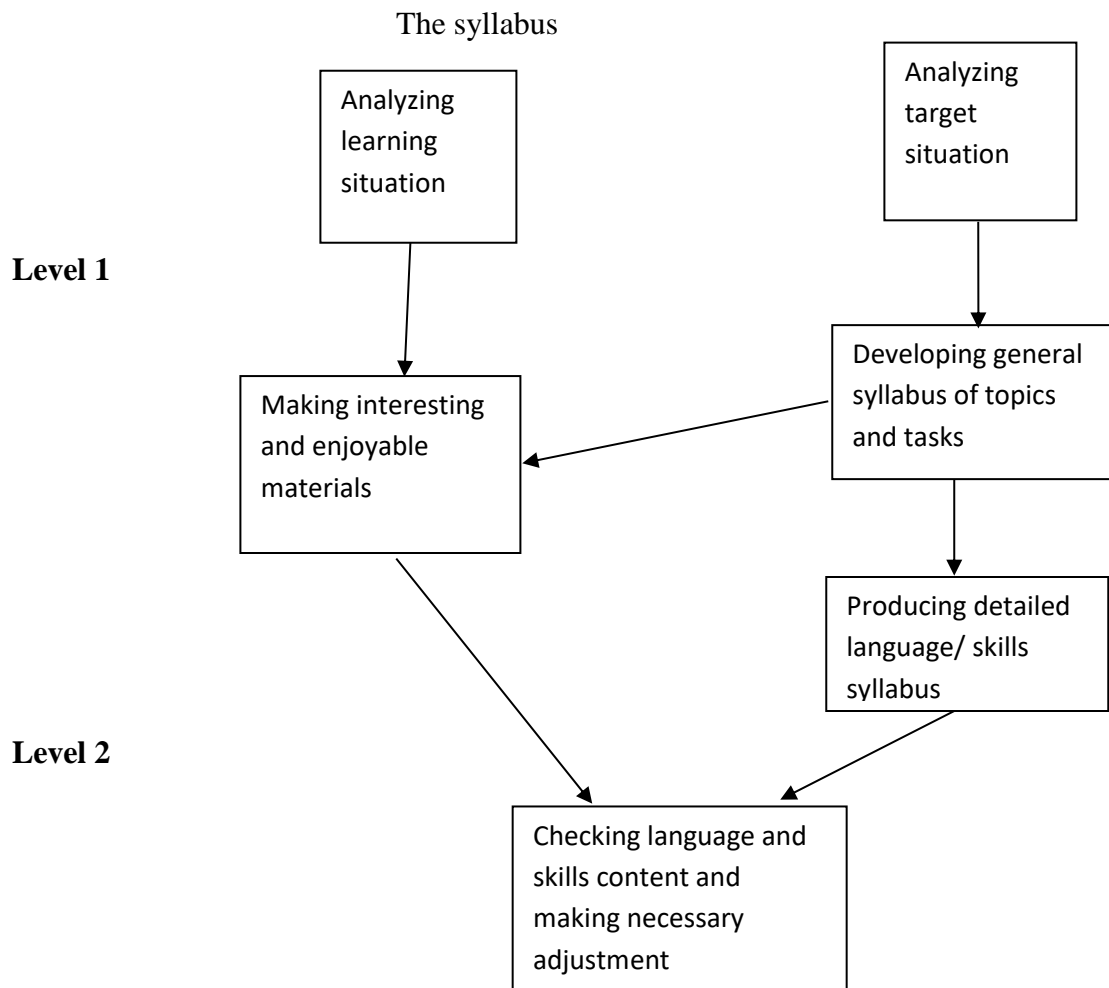


Figure 2.2. The role of syllabus in a learning- centred approach (adapted from Hutchinson and Water (1987))

This figure can show that the learning-centered approach to course design is dynamic because it views needs analysis as a continual activity that maintains the course up-to-date with the learners' changing needs in the target situation.

2.8. ESP Needs Analysis and Language skills

The four "skills" (listening, speaking, reading, and writing) were initially designed to provide a link between the frameworks and the specific English language proficiency tasks (reading,

writing, speaking, and listening) that students and teachers judged to be important for competent academic performance across a range of subject areas (Hinkel, 2017). Medical students consider all skills to be valuable, regardless of their level of significance (Wahyuni, 2021). Language plays a crucial role in various professions, but may be nowhere more than in medicine, where efficient communication is universally recognized as important to therapeutic results (Ferguson, 2012).

In today's context, teaching EMP should be centered on understanding communication skills, allowing learners to become accepted members of any target environment (Popa, 2013). All four language skills (reading, writing, listening, and speaking) and language systems, such as grammatical and phonological structures, must be covered in the syllabus, but the students themselves choose which parts will be thought into focus. Medical students taking English lessons at the tertiary level already possess some understanding of general English and are now continuing to acquire medical English, which is extremely contextual and content-based (Antic & Milosavljevic, 2016). They found that all participants believe speaking is the most essential skills, with reading coming in second, followed by writing and listening. (Wahyuni, 2021) discovered that English was unquestionably essential for both academic and professional careers, with medical students prioritizing listening and speaking skills.

In contrast, (Vahdany & Gerivani, 2016) discovered that both medical students and practitioners rated reading abilities more than other language skills, followed by writing skills; speaking skills were the least significant for both groups. Hekmati et al. (2020) discovered that medical students must be proficient in all four language skills considering the future needs of their profession. They also listed reading, writing, speaking, and listening respectively are significant for medical students. Takele et al. (2022) discovered that nursing students often write patient histories, prescriptions, and medication procedures but are studying useless English courses at the University of Gondar.

2.8.1. Listening Skills

Listening is an important skill that helps language learners to receive and engage with linguistic information while also fostering the growth of other language talents (Goh & Vandergrift, 2022; Vandergrift & Goh, 2012). The health practitioner's ability to listen effectively and accurately is

a core professional trait critical to great patient care results (Worthington & Bodie, 2020). Compared to writing, reading, or even speaking, the development of listening receives the least systematic focus from instructors and educational resources (Goh & Vandergrift, 2022). While language learners are frequently taught how to organize and compose an essay or perform an oral presentation, they are rarely taught how to approach or regulate their listening when attending to spoken texts or messages (Vandergrift & Goh, 2012).

Students' listening comprehension needs include identifying English lectures, taking good notes, asking for repeat or explanations, recognizing extensive explanations and directions in English, recognizing different accents and pronunciations, and expanding their vocabulary (Sudewi, 2021). Listening can help limit over-medicalizing patients since it exposes more about individuals' illnesses/conditions, fears, and health care objectives (Worthington & Bodie, 2020). According to Chatsungnoen (2015), strengthening EAP listening skills demands more advanced listening skills relevant to learners' academic studies than English as a foreign/second language.

The art and science of listening as therapeutic communication in health care are more than just communication technique (Worthington & Bodie, 2020). According to Van Dulmen (2017), as referenced in Worthington & Bodie (2020), patients place a high value on listening skills, perceiving them as important to professional competency and vital in their contacts with health professionals. According to Wahyuni (2021), medical students need greater listening and speaking abilities than they do reading and writing.

Indeed, since listening fosters trust and rapport, greater time spent on listening may not only enhance the scope and quality of provider-patient interactions, but it may also inspire patients to divulge crucial evidence that would otherwise not be shared (Worthington & Bodie, 2020). Worthington and Bodie (2020) identify three areas with substantial listening implications in clinical contexts include situation awareness, clinical handovers, and auscultation. They state that situation awareness refers to the capacity to manage the interaction of various stimuli and focus on effective listening, whereas clinical handovers for best patient outcomes, information must be transmitted from one health practitioner to another in a manner that requires well-developed listening skills. They go on to emphasize that clinical handover is complicated and prone to

misinterpretation. It can be informal or formal, and can take place anywhere, including the patient's bedside, the ward desk, or a conference room. Effective clinical handover depends on correct information transfer and excellent communication skills (Worthington & Bodie, 2020). Auscultation is a fundamental technique in physical health evaluation utilized by many health professionals, including doctors, nurses, and paramedics, necessitates specific and refined listening skills (Worthington & Bodie, 2020). Effective listening is vital for creating, sustaining, and nurturing trustworthy, compassionate relationships among health care workers, patients, and families (Worthington & Bodie, 2020).

2.8.2. Speaking skills

To pursue their studies, medical students require communication skills and methods for reading English journal articles, while for a professional career, they need to participate in international seminars (Wahyuni, 2021). Medical students mostly utilize English to provide advice, discuss medication interactions, and make phone calls (Antic & Milosavljevic, 2016). Acquiring and developing English speaking skills is vital for becoming successful communicators in tertiary education and the job (Hashmi et al., 2014).

Salager-Meyer (2014) suggests that there should be three somewhat overlapping categories in EMP study on spoken interaction: a pedagogical objective that focuses on enhancing the English language abilities of non-Anglophone medical students and health professionals to provide them with the conversational skills they need to engage in their academic communities; linguistic analysis of medical conference presentations; and a sociolinguistic nature, which refers to the literature on healthcare (doctor-patient) communication.

2.8.3. Reading skills

Reading is at the core of much of what ESP students do, both in learning about the target situation conversation and when combined with the application of another skill, such as writing (Hirvela, 2012). Both medical students and practitioners valued reading abilities more than other language skills, followed by writing skills (Vahdany & Gerivani, 2016). In an academic study when students are reading and debating material in their foreign/second language, students must cope with both language and content (Kling et al., 2017).

Dudley-Evans and St. Johns (1998) discuss the changing situation in English for specific purposes, observing that reading was increasingly being taught from the standpoint of texts as delivering information rather than their strictly grammatical features. Students in ESP courses may still be taught a basic set of core reading comprehension skills applicable to a broad range of reading scenarios (e.g. reading text books); there was an increased emphasis on relating the learning and teaching of reading to various rhetorical and communicative settings, with the demands for reading differing across different contexts (Hirvela, 2012).

2.8.4. Writing skills

Writing is likely the essential activity of instructions, and complicated social activities such as educating students, keeping records, engaging with customers, selling items, demonstrating learning, and exchanging ideas rely significantly on it (Hyland, 2022). He goes on to note that not only difficult to imagine modern academic and corporate life without essays, commercial letters, emails, medical reports, and minutes, but writing is also a necessary part of every student's experience. Written medical genres include research papers, abstracts, case reports, review articles, peer reviews, letters to the editor, book reviews, and letters of referral (Ferguson, 2012). In the health profession, two essential genres are research articles (RA) and case reports. The case report is simply a narrative of a single case, detailing the course of a patient's sickness from diagnosis, treatment, and conclusion, generally supplemented by some expert commentary (Ferguson, 2012).

Prescription writing is a vital and basic skill that a medical student should master during their undergraduate study (Gupta et al., 2020). Structure, vocabulary, content, organization, and mechanics are some of the fundamental components that students must have in order to develop their writing skills (Tenri Ampa & Quraisy, 2018). They emphasized that students must first learn structure and vocabulary in order to master English writing abilities. Writing is frequently—perhaps primarily—used in language instruction as a vehicle for language practice and assessment, rather than for the sake of writing proficiency itself (Ur & Ur, 2012).

2. 8. 5. Vocabulary in use in Health Science Field / Medical field

Learners who have little or no exposure to the target language outside of class are unlikely to have a lot of vocabulary input solely via reading and listening, so it is important to commit time to purposeful vocabulary teaching class (Ur, 2022). English for Medical Purposes is a sort of ESP that relates to the teaching of English to health care staff such as physicians and nurses (Maher, 1986). The language of medicine is a unique vocabulary used by healthcare professionals (Gyls and Wedding, 2009). According to Maher (1986), EMP courses are designed to satisfy the special needs of medical learners; therefore, the course should cover medical-related topics and issues that expose learners to the necessary skills in the medical sector, such as writing medical papers or preparing lectures for medical meetings.

You may communicate with restricted grammar and inaccurate pronunciation, but you cannot do so without a large vocabulary (Ur, 2022). ESP vocabulary can refer to terminology such as special purpose, specialized, technical, sub-technical, and semi-technical vocabulary (Coxhead, 2012). In essence, such phrases often refer to the language of a certain field of study or professional use. It appears that gaining vocabulary solely by reading or listening during a language course will not give learners with the number of vocabulary they require, thus we must complement such incidental acquisition with focused instruction and review of lexical items (Ur & Ur, 2012). Teaching terminology within the context of a communicative-oriented approach is directly connected to the development of speech behavior that stimulates real-world professional circumstances (Abidova & Guzacheva, 2020). According to Chung and Nation (2003), as stated in Ferguson (2012), technical terms are those having a restricted range of occurrence and are virtually unknown in public use. They account for up to 37.6 percent of all word types in an anatomy texts, compared to 16.3 percent in an applied linguistics texts.

A medical term comprises of word root, combining form, suffix, and prefix (Gyls and Wedding, 2009). They notice that understanding these combinations allows us to appropriately recognize medical terminology. Terminologies are included in students' active vocabulary, because they are important for the complete implementation of professional tasks and the formation of concepts in a foreign language (Abidova & Guzacheva, 2020). Even by the standards of other fields, medicine is well known for its massive corpus of technical or specialized language, mostly

inherited from Greek and Latin—sometimes with no grammatical change (Ferguson, 2012). He claims that these words are better and more typically learned when studying medicine, and that in many cases, same-technical and lower frequency general vocabulary are more difficult regions for intermediate-level EMP students to master.

All medical terminology has at least one word origin, and the majority are borrowed from the Greek or Latin language (Gyllys and Wedding, 2009). In general, Greek roots are utilized in terms that describe a sickness, condition, treatment, or diagnosis, whereas Latin origins are used in phrases that describe anatomical structure (Gyllys and Wedding, 2009). Table 2.3 shows a sample of medical technical word formation.

English Term	Greek or Latin Term	Word Root	Word Analysis
Skin	dermatos(Gr)	dermat	Dermat/itis (de-ma-TI-tIs) inflammation of the skin. A term that describes a skin disease.
	Cutis (L)	cutane	Cutane/ous (sub-ku-TA-ne-us) pertaining to the skin. A term that describe an anatomical structure.
kidney	Nephros (Gr)	nephr	Nephr/oma (ne-FRO-ma): tumor of the kidney; a term that describes a kidney disease
	Renes (L)	ren	Ren/al (RE-nal): pertains to the kidney; a term that describes an anatomical structure
Mouth	Stomatos(Gr)	stomat	Stomat/it is (sto-ma-Ti-tis): inflammation of the mouth; a term that describes any inflammatory condition of the mouth.
	Oris(L)	or	Or/al (OR-al): pertaining to the mouth; a term that describe an anatomical structure

Table 2.3 Sample examples of technical word roots and their pronunciation (adapted from Gyllys and Wedding, 2009).

Beyond purely technical words, research has lately focused on a category of semi-technical and academic medical vocabulary, with the purpose of informing vocabulary teaching and learning goals (Ferguson, 2012). Specialized terms are often associated with a certain academic course or professional practice. Persons outside of the academic or professional sector may have some

understanding of the vocabulary, but people inside the domains of language usage are expected to be able to understand and use it fluently (Coxhead, 2012). One method for recognizing specialist language is to consult an expert in a certain subject to assist identify technical terminology (Schmitt, 2010).

For the current study, it is necessary to examine how the English language is used in the classroom and in the health profession in order to identify the language required in a target situation and the manner in which the language is used, which will aid in the design of courses based on the needs investigated. Harmer (2001) states that words do not always mean what they appear to imply, and that words can have varied implications depending on the context in which they appear. He notes that our language choices are influenced by aspects such as setting, participants, gender, channel, and issue. While students study how language is used in speaking or writing, their attention should be given to the issues: why they use specific words or expressions; what kind of language is suitable in their situation when talking to superiors or others should be discussed (Harmer, 2001).

Paltridge and Starfield (2013) suggest that it is absolutely possible to develop an EMP course around a sequence of relevant language components (e.g. medical terminology). They further notice that the use of English in the health science fields of study is not restricted to English-speaking countries, but is also frequently employed in countries where English is spoken as a second or foreign language. From the present research experiences, in Ethiopia, where English is a foreign language, all health science and medical students attend their courses in English. They utilize English in their classes to read course materials, write and present laboratory reports, listen to lectures and participate in group discussions, take exams, and write theses. In hospital or in any health center, doctors and health professionals use English to write and document cases. Thus, in Ethiopia, the English language plays a significant role in the health profession and requires investigation.

2.8.6. Grammar

The researcher believes that describing language use in the target setting, such as syntax, vocabulary, and discourse, will bring the study to life. For example, Harmer (2001) defines grammar as "the explanation of the ways in which words can change their forms and be

integrated into sentences in that language." He emphasizes that when grammatical norms are carelessly disregarded, communication suffers. Despite passing the grammar course, pupils continue to produce significant mistakes in their writing (Córdoba Cubillo & Solís Hernández, 2015). "Grammar must be taught to master all English abilities such as speaking, writing, reading, and listening properly" (Kling et al., 2017, p. 203).

The repeated problem with grammar may be elucidated by the fact that, since students have general knowledge of English, there is no need to return to the basics, i.e., the academic course continues where the preceding high school learning has left off (Antic & Milosavljevic, 2016). The language and grammar module should be corrected with the enhancement of students' writings, reading, communication, and engagement in various academic assignments (Dkhissi, 2014). University students require clear goals for learning English grammar, learning methodologies that employ a story-based, deductive, and inductive approach, a welcoming and engaging learning environment, and a learning model that combines the use of modern technologies (Yunita et al., 2018).

2.9. Theoretical Framework

Needs will be one of the practical and theoretical attentions that will have a main effect in guiding the tangible progression of course design (Nation and John Macalister, 2010). Different researchers indicate that assessing the needs of the learners is prior to any course design, especially, in ESP course development. Different models of needs analysis have been aroused since the emergence of ESP. The five prominent models of need analysis are explained as follows:

1. Munby (1978) Needs Analysis Model
2. McDonough (1984) Needs Analysis Model
3. Hutchinson and Waters (1987) Needs Analysis Model
4. Dudley-Evan and St John (1998) Needs Analysis Model
5. Helen Basturkmen (2010) Needs Analysis Model

1. Munby (1978) Needs Analysis Model

Munby (1978) proposed a model to analyze ESP students' linguistic needs. The model was called Communicative syllabus design, and it was the earliest model proposed for analyzing the needs of ESP students. Communicative needs processor (CNP) is the whole process through which ESP learners' language needs are processed via certain parameters and are profiled (Munby, 1978). According to Munby (1978) the parameters are 'Purposive Domain (classification of needs according to ESP industry), setting/environment, interaction, instrumentality (channel, mode and medium of ESP teaching and learning), dialect, target level, communicative events (ESP learning activities and subject matters and communicative Key) the manner in which communicative needs to be carried out.

However, This CNP model was criticized by researchers like Hutchinson and Waters (1987), Dudley-Evan and St John (1998) and West (1994). Hutchinson and Waters (1987) criticized CNP model that it presents an organized list of linguistic features without considering learners teachers and stakeholders. West (1994) also indicated that CNP model of Munby (1978) is very complicated, time consuming and lack flexibility in assessing learners' needs. Dudley-Evan and St John (1998) criticized the CNP model for not prioritizing the learners' needs.

2. McDonough (1984) Needs Analysis Model

McDonough (1984) proposed another version of Needs Analysis model might be depending on the work of Munby (1978). According to McDonough (1984), ESP students are prioritized and they are placed at the Centre of the system. It is indicated that needs are dynamic which are ever changed and developed from time to time, so should not be perceived as being static. According to this model, when the needs analysis is conducted, the needs of different people such as students, teachers and stakeholders should be considered.

In his model McDonough (1984) state that the level of explicitness and details can differ according to the different conditions and needs. However, this model is also criticized for focusing only on the target needs and present needs of the learners.

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3. Hutchinson and Waters (1987) Needs Analysis Model

Hutchinson and Waters (1987) express needs in two concepts: target needs and learning needs. Target needs show what the learner needs to do in target situation, and again, they categorize it into necessities, lacks and wants. The second point is learning needs. This refers to what the learner needs in order to learn. These are learners' motivation to study a foreign language, future career, interests, and time available. Hutchinson and Waters (1987) list target needs (necessities, lacks, and wants) as:

Necessities can be the type of needs determined by the demands of target situation. In other words, it is what the learner is obliged to know so as to perform the target situation effectively. Lacks refer to the current proficiency of the learners. This is about learners' prior knowledge and is used to identify which necessities the learner lacks. Wants answer the question of what the learners wish to learn.

This needs analysis model focuses on target needs, present need and learning needs as the main elements of students need analysis. However, other elements of need analysis like genre analysis, linguistic analysis, means analysis, and discourse analysis are given less emphasis, but get more emphasis by Dudley-Evan and St John (1998).

4. Dudley-Evan and St John (1998) Needs Analysis Model

Dudley-Evans and St John (1998) state important framework that describes issues involved in needs analysis. They provide the following features which address what is involved in collecting information of needs analysis:

- A. professional information about the learners: the tasks and activities learners are/will be using English for—target situation analysis and objective needs.
- B. personal information about the learners: factors which may affect the way they learn such as previous learning experiences, cultural information, reasons for attending the course and expectations of it, attitude to English—wants, means, subject needs.
- C. English language information about the learners: what their current skills and language use are—present situation analysis—which allows us to assess (D).
- D. the learner's lacks: the gaps between (C) and (A)—lacks.
- E. language learning information about: effective ways of learning the skills and in (D)—learning needs.

F. professional communication information about (A): Knowledge of how language and skills are used in the target situation—linguistic analysis, discourse analysis, genre analysis.

G. what is wanted from the course?

H. information about the environment in which the course will be run—means analysis.

(Dudley-Evans and St John, 1998, p.125)

They also provide the sources where this information is gathered and the tools used to collect these data. The sources they list are the learners, the people working or studying in the field, ex-students, documents relevant to the field, clients, employers, colleagues, and ESP research in the field, whereas the tools used to collect the information from these sources are questionnaires, analysis of authentic spoken and written texts, discussions, structured interviews, observations and assessment. Different from Hutchison and Waters (1987), Dudley-Evans and St John (1998) included means analysis.

5. Helen Basturkmen (2010) Needs Analysis Model

Basturkmen (2010) states that during the need analysis process, the language and abilities that learners will use in their intended professional or vocational employment or study fields are identified and examined. Here, things need to be identified and considered are the learners' current state of knowledge, their consideration of their needs, and the actual opportunities and restrictions of the educational situation. The information gathered through this method is used in deciding the content and method of the course. Basturkmen (2010, p.19) lists the following five points which are included in needs analysis process.

1. Target situation analysis: Identification of tasks, activities and skills learners are/ will be using English for; what the learners should ideally know and be able to do.
2. Discourse analysis: Descriptions of the language used in the above.
3. Present situation analysis: Identification of what the learners do and do not know and can or cannot do in relation to the demands of the target situation.
4. Learner factor analysis: Identification of learner factors such as their motivation, how they learn and their perceptions of their needs.

5. Teaching context analysis: Identification of factors related to the environment in which the course will run.

The current study adapted more of Needs Analysis Model developed by Hutchison and Waters (1987) to design conceptual framework of this study because it encompasses important aspects of needs analysis such as target situation analysis, present situation analysis, and learning situations analysis which could fit the Objective of this study. The researcher believes that Hutchison and Waters (1987) needs analysis model is intermediate as it fills many gaps of the first two models of needs analyses (Munby, 1981 and McDonough, 1984), but not more sophisticated as the last two need analysis models (Dudley-Evans and St John, 1998 and Basturkmen, 2010). Hence, the researcher believes the countries like Ethiopia where higher institutions have no ESP course, and English language courses delivered without conducting learners' English language needs, Hutchison and Waters (1987) needs analysis model is enough as a beginner to investigate learners' English language needs so as to design course accordingly.

2.9. 1. Theory of Language

The conceptual framework of need analysis is based on the rationale of language descriptions and learning theories. It discusses language descriptions and learning theories that explain the course design process that course designers or instructors are expected to follow while investigating the English language needs of the learners. Finally, a basic framework for the current study is presented, based primarily on Hutchinson and Waters' (1987) needs analysis framework. According to Hutchinson and Waters (1987), every ESP course incorporates explicit or implicit assumptions regarding the nature of language. These ideas are developed from several language descriptions created by different schools of thought in linguistics.

The language description is used to understand the characteristics of the developmental phases and to incorporate course design notions. The method of learning must also be accentuated while developing a course. Hutchinson and Waters (1987) also contend that knowing how individuals learn should come first in any language education, and that studying language and learning theories separately is required to recognize the benefits of any language education.

Hutchinson and Waters (1987) state that any ESP course makes use of explicit or implicit ideas about the nature of language. These ideas stem from various language descriptions developed by the following linguistic schools of thought. The language description is used to understand the

characteristics of the development stages, as well as course design concepts. Hutchinson and Waters (1987) identified six major stages in the development of language. They are: Classical or traditional grammar, Structural linguistics, transformational generative grammar, language variation and register analysis, functional/notional grammar and rhetorical/ discourse analysis.

A. Classical or Traditional Grammar

Under classical or traditional grammar, languages were described on the classical languages, Greek and Latin. They described language as case-based (Subject, object, indirect object and so on). Traditional grammar was viewed as prescriptive because it follows rules. It fails to represent language as a cohesive systemic event. The grammar of a language is the rules that allow language users to generate surface structure (performance) from a deep level of meaning (competence) (Hutchinson and Waters, 1987). Though traditional grammar can no longer account for all of the possibilities in grammar, register analysis has benefited greatly from its terminology and demonstrates how language works.

B. Structural Linguistics

Structural linguistics emerged in the 1930s and was the first real challenge to the traditional description of languages (Hutchinson and Waters, 1987). It has had a significant impact on language teaching since the Second World War. A structural description describes the grammar of a language in terms of syntagmatic structures that carry propositions and notions. Propositions are statements, interrogatives, negatives, imperatives, and so on, whereas notions are things like time, numbers, and genders. Changing the words within these structural frameworks can result in sentences with different meanings. Substitution tables are a common method of explaining grammatical patterns in English language teaching.

In addition to the substitution table, structural linguistics made significant contributions to the application of the structural syllabus, which has proven to be an extremely effective method of selecting and sequencing language items. The structural syllabus provides learners with a systematic description of the generative core of the language, resulting in the generation of an infinite number of novel utterances. As a result, it was widely used, despite criticism from proponents of functional, notional, or use-based descriptions of English. However, the two main weaknesses observed were the large area of language that cannot be explained in this structural

linguistics and the failure to provide the students with an understanding of the communicative use of the structure (Hutchinson and Waters, 1987).

C. Transformational Generative (TG) grammar

Transformational-generative grammar was widely accepted after Noam Chomsky's syntactic structure was published in 1957 (Hutchinson and Waters, 1987). As Chomsky stated in Hutchinson and Waters (1987), structural description only described the surface structure of the language and could not explain relationships of meanings that were clearly present but not realized in the surface structure. Consequently, it was too superficial.

The most important lesson to be drawn from Chomsky's work for ESP was the distinction he made between performance (i.e., surface structures) and competence (i.e., deep level rules) (Hutchinson and Waters, 1987). They stated that Chomsky's definition of performance and competence was narrowly based because it only concerned syntax, whereas in ESP they have a much broader view because describing what people do with the language (performance) is just as important as discovering the competence that allows them to do so.

Language exists because people use it; it does not exist for its own sake. For example, people need information; they classify, identify, and report (ibid.). In short, language can be viewed in terms of function (what people do with it). As a result, the study of language should consider not only syntax, but also other components of communication such as nonverbal communication (gesture, posture, eye contact, etc.), the medium and channel of communication, role relationships between participants, the topic and purpose of communication. They claim that the concept of communicative competence has brought about significant change in ESP, resulting in the following three stages of development: language variation and register analysis, language as function, and discourse analysis.

D. Language variation and register analysis

If language is viewed as part of a communicative whole, its use demonstrates considerable variety (Hutchinson and Waters, 1987). Language varies according to the context of use, which helps to distinguish formal from informal, written from spoken, self-sufficient language from context-dependent (ibid.).

The concept of language variation is the causes for the emergency of ESP, which was obtained based on register analysis (Hutchinson and Waters, 1987). They argue that if language varies depending on context, it should be possible to identify the type of language associated with a specific context, such as an area of knowledge or a field of use. Examples of areas of knowledge include legal English, social English, medical English, business English, scientific English, and so on, while examples of areas of use include technical manuals, academic texts, business meetings, advertisements, doctor-patient communication etc.

As a result, the concept broadly implies that ESP is concerned with identifying characteristics of various registers in order to provide a foundation for the selection of syllabus items, and register analysis is a result of language variation.

E. Functional/ Notional grammar

The functional/notional concept of language description has been the second major development of language as communication, influencing ESP (Hutchinson and Waters, 1987). They explain that functions are concerned with social behavior and represent the speaker or writer's intention, such as advising, warning, threatening, or describing, whereas notions can refer to the way the human mind thinks and the categories into which the mind and language divide reality, such as time, frequency, duration, number, location, quantity, quality, and so on. The development of functional-based syllabus has greatly influenced ESP because adult ESP learners who have already mastered the language structure at school are acquiring English for the needs (ibid.). Thus, it is learning structures that have already been acquired. According to Hutchinson and Waters (1987), the weakness of this syllabus type is that it suffers in particular from a lack of any kind of systemic conceptual framework, and thus does not help learners to organize their knowledge of the language.

F. Discourse (Rhetorical) analysis

Before this stage, language was viewed in terms of the sentence, but now the focus is on how meaning is generated between sentences (Hutchinson and Waters, 1987). This was a logical extension of the functional/notional view of language, which demonstrated that there are more meanings than just the words in a sentence. The meaning of the same sentence varies with the different context, such as the sociolinguistic context (who is speaking to whom and why), and

according to the relationship between the participants in the dialogue, as well as the reason for speaking (ibid.). Hutchinson and Waters (1987) clearly demonstrate principles of language descriptions through discourse analysis by providing relevant examples, as follows:

Can I go out and play? It is raining (a child asks his parents); Have you cut the grass yet? It is raining (A husband addresses his wife); I think I'll go for a walk; it's raining (One is talking to his friends). In all three cases, the statement "it is raining" is the same. The concepts are also the same (present time, first person singular...). However, the same statement serves multiple communicative purposes. In the first, the child asks permission to go out, and the parents' response serves as a refusal of the request. In the second expression, "it's raining" refers to a reason or an excuse. In the third situation, the expression "it's raining" serves as advice or a mild warning. Hutchinson and Waters (1987) demonstrate that the meaning of the same sentence changes in different contexts for two reasons. The first is the socio-linguistic context, in which meaning varies depending on the relationship between the participants in the dialogue and their reason for speaking (who is speaking? To whom and why? The following is the relative positions of the utterances within the discourse (the discursal meaning).

Harmer (2001) also explains that the words we use and what they mean in the context in which we use them are not synonymous. He claims that words and phrases are chosen to produce different effects than the surface meanings they appear to express, and this is done based on a number of variables, including purpose, appropriacy, language in discourse, and genre.

In general, the above six stages demonstrate that language description is one of the factors required for designing an ESP course. The first three show how ESP was organized in its early stages, while the last three show methods of communicative competence in language description. As a result, a course designer is expected to consider all of these factors in order to create an appropriate course that meets the students' specific needs.

2.9.2. Theories of learning

When developing a course, it is also necessary to emphasize the method of learning. Hutchinson and Waters (1987) state that learning theories give the theoretical underpinning for methodology and aid in understanding how individuals learn. They also claim that understanding how people

learn should be the main priority in any language teaching, and that considering language and learning theories independently is critical for determining the advantages of each language instruction. According to Hutchinson and Waters (1987), there have been five major stages in the development of learning theories since the twentieth century. They are behaviorism, mentalism, cognitive code, affective factor, and learning and acquisition.

A. Behaviorism: learning as habit formation

Behaviorist theory is the first coherent theory based on the work of Pavlov in the Soviet Union and Skinner in the United States (Hutchinson and Waters 1987). According to this theory, learning is a mechanical process that follows habit formation and is accomplished through frequent reinforcement of a stimulus-response sequence. The fundamental exercise technique of a behaviorist methodology is pattern practice in the form of language laboratory drills. Such drills are still found in ESP, but in more interesting and meaningful contexts (ibid.).

Thus, behaviorism is a learning theory that only considers objectively observable behaviors and ignores any independent mental activities. According to behaviorist theory, learners are expected to learn the proper pattern of linguistic behavior and develop the proper habits, but they are not required to internalize rules. It was criticized primarily for disregarding mental activity and failing to explain some aspects of learning, such as young children's recognition of new language patterns in the absence of a reinforcement mechanism.

B. Mentalism: thinking as rule-governed activity

Chomsky addressed behaviorism by examining how the mind transfers what it has learned from one stimulus response situation to another. Chomsky defines learners as thinking beings capable of coping with an infinite range of possible situations from a finite range of experience, as opposed to generalization, which behaviorism claims (Hutchinson and Waters, 1987).

C. Cognitive code: learners as thinking beings

The cognitive view considers the learner as an active processor of information, whereas the behaviorist theory of learning considers the learner as a passive receiver of information (Ausubel et al, 1978 cited in Hutchinson and Waters, 1987). Learning is a process in which the learner actively attempts to make sense of the data. It can be implemented when the learner is able to make some sort of meaningful interpretation or pattern on the data (Hutchinson and Waters,

1987). This implies that students learn by reflecting on and attempting to make sense of what they see, feel, and hear.

According to Hutchinson and Waters (1987), the core teaching method related to a cognitive theory of language learning is the problem-solving task, and in ESP, such drills are displayed on activities connected with the learners' subject specialization. The cognitive viewpoint on learning has had a substantial effect on ESP through the development of courses to teach reading strategies (ibid.)

D. The affective factor: learners as emotional beings

Hutchinson and Waters (1987) define affective factors as emotional factors that influence learning and be able to have both a positive and negative impact. Teachers can decrease negative factors while increasing positive ones by designing tasks that foster a positive group dynamic, involving students in course decision-making, and selecting tasks that are inspiring for the learners' age and interests.

As previously stated, cognitive theory holds that learners will learn when they actively consider what they are learning. This could indicate the affective component of motivation. As stated in Hutchinson and Waters (1987), there are two types of motivation in the study of bilingualism in French-speaking Canada. They are both instrumental and integrative motivation.

Instrumental motivation reflects the learners' external needs. Learners learn a language because they need it for something, such as studying or working, transacting business with the language's owner, or studying for an exam, rather than because they want it or for leisure. Integrative motivation, on the other hand, stems from learners' desire to belong to a speech community that speaks a specific language. It is not an externally imposed need, but an internally generated desire.

As stated above, both types of motivation can exist in all learners, but each activity has a different impact depending on age, experience, and changing occupational or social needs. Hutchinson and Waters (1987) point out that because motivation appears to be a complex and individual matter, it is difficult to determine what motivates your students, but it is simple in the ESP world: relevance to target needs. In reality, this entails providing medical texts to medical

students, Engineering English to engineers, and so on. According to the above researchers, students can be motivated to learn English when they are offered courses that are relevant to their target needs. In ESP, learners should be intrinsically motivated in order to learn the language more effectively.

Hutchinson and Waters (1987) represented the cognitive/affective interaction as a learning cycle. As shown in Figure 2.4 below, a good and appropriate course will result in a positive learning cycle.

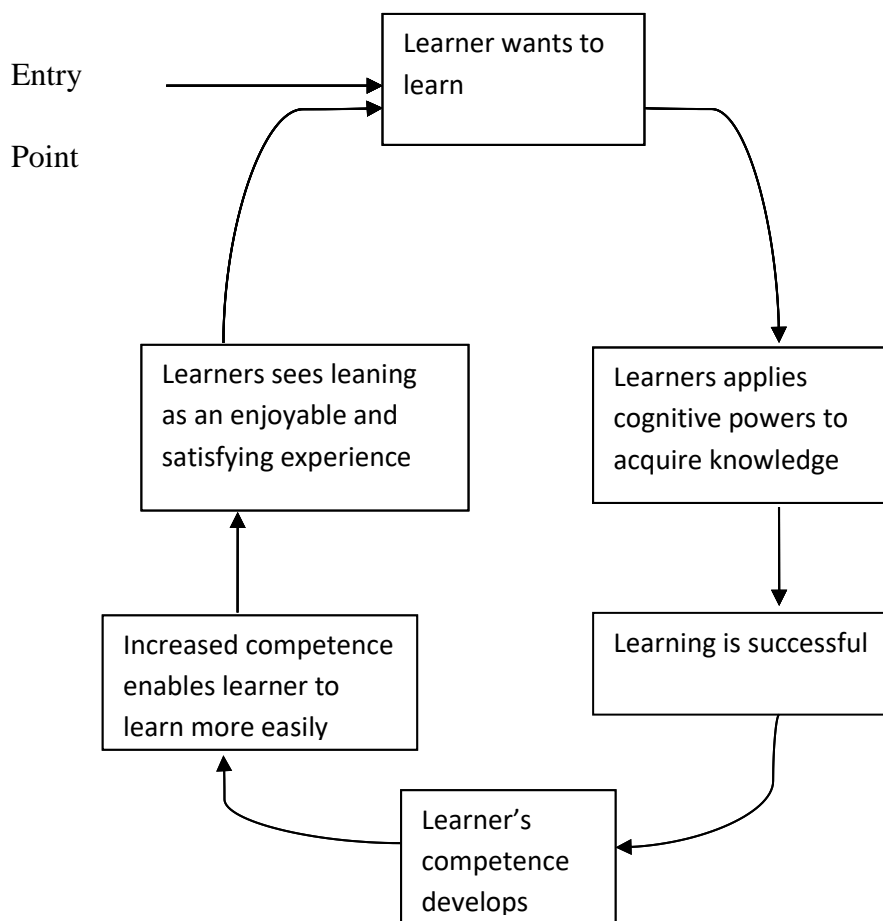


Figure 2.4. A positive Learning cycle (Hutchinson and Waters, 1987, p.47)

E. Learning and acquisition

Krashen (1982) states that the acquisition-learning distinction is may be the most fundamental of all his five hypotheses. Language acquisition is subconscious process that language acquirers are only aware of using the language for communication, but they are not aware of the fact that they

are using the language. Krashen describes acquisition as implicit learning, informal learning, and natural learning. Learning on the other hand is a conscious process that monitors or edits the progress of acquisition and monitors the speaker's performance, and it is the second way to develop competence in a second language. In non-technical terms Krashen define learning as knowing about a language, knowing grammar or rules; it is formal knowledge of the language or explicit learning (Krashen, 1982). However, Hutchinson and Waters (1987) argue that both acquisition- learning processes are important for the second language learning, so good ESP course will attempt to include both of them.

Generally, there have been five significant stages in the evolution of learning theories since the twentieth century. Behaviorism, mentalism, cognitive code, emotional element, and learning and acquisition. However, two learning theories (the cognitive/affective interplay) underpin this study. Because as indicated in figure 2.4, if learners get what they want to learn, they can apply their cognitive powers to acquire knowledge. If learners apply their cognitive power, Learning is successful. If learning is successful, Learners' competence develops. Then, increased competence enables learners to learn more easily. This makes Learners sees leaning as an enjoyable and satisfying experience. This in turn develops learners' interest to attend the lesson. It is cyclical.

2.10. Conceptual Framework

In general, based on the above brief descriptions of theoretical concepts, the context of investigating students' English language needs in light of course design is presented as follows.

Input variables are health science students' background and learning context. Regarding health science students' background, academic level (e.g., undergraduate), current English proficiency, exposure to medical/health science terminology would be identified. Concerning learning context, course requirements, clinical practice exposure and communication needs (academic and professional) would be investigated. These variables are processed through collecting quantitative data (questionnaire and TOEFL test)in the first phase and then followed by qualitative data collection(observation, interview and document analysis) in the second Phase. Then, the output variables would be reports detailing health science students' English language needs and recommendations for targeted language course and support. Accordingly, the

outcomes expected will be: improved English language proficiency in health science contexts, better academic performance and clinical communication skills and increased confidence and readiness for professional healthcare environment.

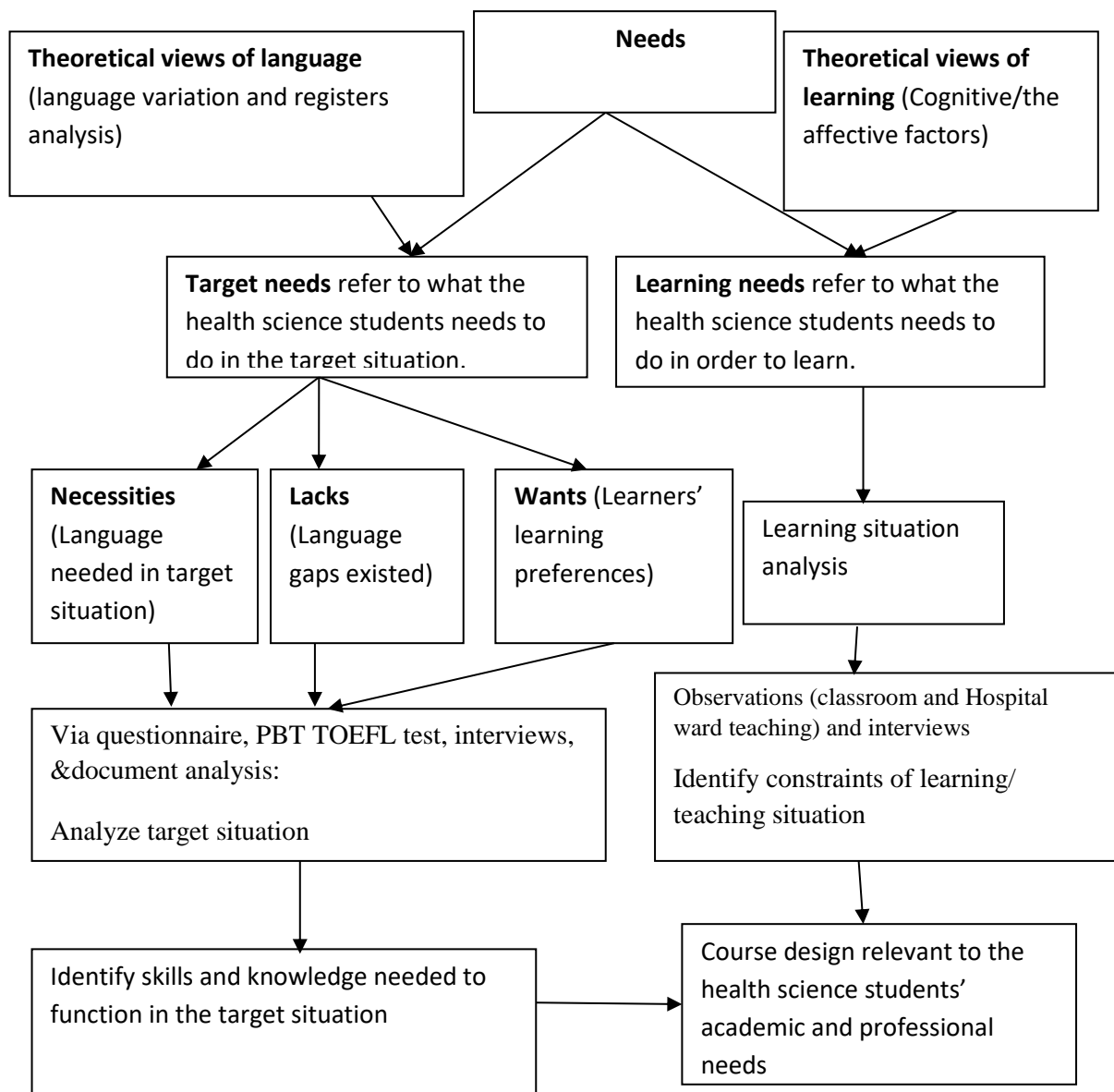


Figure 2.5. Conceptual frame work of the study (adapted from Hutchinson and Water, 1987)

In the figure, the framework displays the variables that help course design be relevant to the health science students’ academic and professional needs through learners’ English language

needs analysis. Depending on the theoretical view of language, target needs (what language the learners need to function in their academic and future professions) are identified. These identifications of the target needs are done through identifying necessities (language needed in the target-situation use), identifying lacks (students' language difficulties), and identifying wants (students' language learning preferences). Analyzing the language in target situations helps identify the language skills and knowledge needed to function in the target situation use. On the other hand, based on a theoretical view of cognitive and affective learning, learning needs (what learners need to do in order to learn) are identified through learning situation analysis. Then, attitudes and potential of learners and constraints of the learning or teaching situation are identified. By mediating these variables of both theoretical views of language and theoretical views of learning, the course pertinent to students' academic fields of study and future professions will be designed. In general, the conceptual framework in the figure above shows the English language needs analysis of health science students that help design English language course accordingly in the context of Samara University, an Ethiopian higher education institution.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.0. Introduction

This study aimed to investigate health science students' English language needs. This chapter describes the research methodology used for this study. It includes research design, the research setting, sample size and sampling techniques, the description of the data collection instruments, the data collection procedure, the data analysis' techniques and the data analysis procedure. The subsequent sections discuss the reliability and validity of the instruments. The chapter, further, discusses the trustworthiness of the study, ethical considerations and a summary of the pilot study.

3.1. Design of the Study

Addressing the current research problems using a single approach might be difficult. As a result, this study used a mixed methods approach to answer the research questions. According to Creswell (2012), mixed methods research design is a method for collecting, analyzing, and combining quantitative and qualitative methods in a single study or series of studies to gain a better understanding of the research problem. According to Creswell (2014), combining quantitative and qualitative methods leads to a better understanding of the research problem than using either method alone. A mixed methods study is conducted when one type of research (qualitative or quantitative) is insufficient to address the research problem or answer the research questions, and when both quantitative and qualitative data are combined to provide a better understanding of the research problem than either type alone (Plano Clark and Creswell, 2015). The mixed method approach is important in need analysis because a variety of data collection methods are used to address the problems (Dudley-Evans and St. John, 1998; Basturkmen, 2006). Jeong Park (2021) revealed that conducting a systematic mixed-methods learner needs analysis can improve the rigor of course design, material development, and curriculum and instruction enhancement.

Thus, the researcher employed a sequential explanatory mixed methods design, collecting quantitative and qualitative data in two phases. The explanatory sequential mixed methods design system required the researcher to first collect and analyze quantitative data. Then, based

on the overall picture of the results obtained from quantitative data, qualitative data were shaped in order to obtain more detailed information. According to Creswell (2014), the most popular mixed methods design in educational research is the explanatory sequential mixed method. The primary goal of using this approach is to obtain a general picture of the research problems from the quantitative data and results in order to refine, extend, and explain the general picture through in-depth analysis of the qualitative data (Creswell, 2014).

According to Plano Clark and Creswell (2015), mixed methods designs differ in terms of timing. They explain that timing refers to when the researcher collects and analyzes both qualitative and quantitative data. They included two timing options in mixed method studies: concurrent (+) and sequential (→). (+) indicates concurrent (or simultaneous) timing which means that the researchers collected and analyzed the quantitative data as the same time that they were collecting and analyzing qualitative data. They explain that the “same time” doesn’t mean exactly at the same moment on the same day; but it means that both types of data are being gathered before the analysis of either one is completed. On the other hand, in sequential timing represented by an arrow (→), the researchers collected and analyzed one type of data (e.g., quantitative) before they collected the other type of data (e.g., qualitative). Besides, they explain the priority in mixed method designs. Priority refers to the relative importance of the quantitative and qualitative components for addressing a study’s purpose (Plano Clark and Creswell, 2015).

They indicated two basic options for priority: equal priority (QUAN, QUAL) and unequal priority (QUAN, qual or QUAL, quan). Equal priority means that the quantitative and qualitative components of a mixed methods study are equally important in the study, whereas unequal priority means that either the quantitative or qualitative component is more important in addressing the study's purpose. Unequal priority is indicated by writing the primary method in uppercase letters (QUAN or QUAL), and the lesser priority method in lowercase letters (quan or qual).

Dornyei (2007) also lists nine possible typological organizations on the dominance and sequence of qualitative and quantitative in a mixed methods study. He categorizes the nine possible combinations into three if a study has only two components (a qualitative and a quantitative). They are qualitative first, quantitative first or concurrent; and qualitative dominant, quantitative

dominant or equal status. Plano Clark and Creswell (2015) Suggests that using sequential explanatory design is the best of mixed method design in which quantitative data are collected in the first phase to provide an overall picture of the research problem, and in the second step, an in-depth qualitative exploration is used to refine or elaborate on these results.

Therefore, in this study, quantitative data was used to collect information about health science students' English language skills, which are frequently required in their target situation, as well as their preferences for learning English and their opinions on the English language course they were taking. Again, their current English language situation at the time of study was obtained by the PBT TOEFL test in phase one. Then, based on the results, qualitative instruments were designed and collected to determine why and how English was used in the target situation.

In short, the first phase focused on identifying language skills frequently needed, while the second phase focused on why and how the identified language skills were needed in both health science academic study and future professional career. Thus, observations, interviews, and document analysis were required to provide an in-depth response to the research questions. As a result, the researcher used (QUAN→ qual) typological organizations. That is, the uppercase letters indicate the quantitative data's dominance, and the arrow sign indicates that the quantitative stage is collected first, followed by the qualitative stage. As a result, the approach contributed to a comprehensive and multidimensional understanding of health science students' English language needs in both academic and professional settings. It would also allow for increased credibility and reliability of the findings.

3.2. The research setting

The study was conducted at Samara University (SU), one of Ethiopia's second generation public higher education institutions. The University is located in Samara, Afar National Regional State, Ethiopia, and 590 kilometers from the capital Addis Ababa. Samara University was established in 2007. It began with the enrollment of 1876 students in the first batch, who were divided among three faculties: the Faculty of Education, which had 12 departments, the Faculty of Business and Economics, which had three departments, and the Faculty of Dryland and Agriculture, which had two departments. However, it gradually increased its academic program and intake capacity. Then, it has enrolled over 8000 students in various programs.

Samara University has seven colleges and three schools that offer a wide range of undergraduate and postgraduate programs. There are 50 departments that cater to students in various major areas of study, as well as 23 postgraduate programs. Previously, the English language department provided communicative English and basic writing courses to students from various departments. When this study was conducted, the department of English language and literature provided communicative English language skills I and communicative English language skills II courses to all first-year students in 50 departments. The department offered courses across all fields of study.

As a result, the department of English language at Samara University plays an important role in delivering English as a common course across various academic programs. Established with the goal of achieving academic excellence, the department is committed to improving language proficiency and cultivating a thorough understanding of English language and literature.

3.3. The participants

3.3.1. College of Health Science

Samara University's College of Health Science was established in 2012 with the enrollment of 55 regular and 76 extension nursing students. The college began with seven bachelor degree staff and three master degree staff. Based on national health workforce demand, the college expanded its teaching and learning process in 2013 by enrolling students in midwifery and public health programs. When this study began, there were three departments (public health officer, nursing and midwifery). From the first to the fourth year, each has one section that includes 199 students. However, at the end of this study process, the researcher observed that the college has launched School of medicine. Then, called College of Medical and Health Science (CMHS) which has six Departments: Nursing, Midwifery, Public Health, Bio-medical Science, Health Informatics and School of Medicine. The college has also established Dubti Health and demographic surveillance system (HDSS) site for longitudinal study in the community.

In general, the research setting for investigating the English language needs of college of Health science students in the 2021/ 2022 academic year is multifaceted. This setting provided a solid foundation for understanding health science students' English language needs, resulting in academic and professional success. The Department of English Language works with other academic departments at the university, as well as with outside institutions and organizations.

However, Health Science College was purposefully selected in this study for the following reasons. The first was a course delivered by the researcher to health science students (public health officer, midwifery) as well as students from other departments (e.g. horticulture and Amharic). The lessons on the course content seemed simple for health science students because they could easily complete each activity, but the majority of them did not attend the English class. They came to the English class if the teacher took the attendance or if there was quiz or test. In short, public health officer students, nursing and midwifery student did every activity at ease, but they had no interest to attend the English class.

As the researcher tried to ask some students, the lesson was what they had already learned at their high school and they got nothing new rather than wasting their time. This made research think why they needed learning English. Then, realized that English language is very important for health Science College than others in context of Ethiopia because all medical terms in educational setting or professional setting is written in English. For example, in health professional setting, every activity is written and documented in English. In educational setting, health science students often write laboratory reports, and mini- research in English in addition to listening to the lecture, attending their own courses and doing the examination just like other department.

However, the courses delivered did not appear to help students in their academic or professional settings. As a result, the researcher decided to investigate the English language needs of health science students. The researcher would not select medical students because Samara University did not have a medicine department when the study began.

3.3.2. Students

The study was conducted involving second year and fourth year health science students in Samara University. Thus, the respondents were selected from regular public health officer,

nursing and midwifery department students from second year and fourth year in the academic year of 2021/2022G.C.

Second year and fourth year students were purposively selected. As second year students recently completed the communicative English language skills courses including other common courses and started their major subject area courses. Thus, from their experience, they can easily provide the English language needed in target situation. Fourth year students have been selected since they had taken most of the major subject area courses, they can give necessary information concerning English language needs for target situation. Third year students were intentionally excluded from this study because the researcher thinks that the information they can provide can be obtained from fourth year students. First year students were also not selected as they did not chose department in the first year, and even if they were existed they would not be included as they did not complete the communicative English courses in their first year.

Accordingly, there were total of 199 target health science college students. From a total population of 199, the required sample size for the study with 5% margin of error and 95% confidence level was 131 students so as to get representative sample of the students from each department in the college. As a result, 131 students from the College of Health Science were chosen and included in this study. Specifically, 43 participants were chosen from 66 fourth-year students and 88 from 133 second-year students. The determination of sample size participants was made according to a scientific sample size calculation of Kothari (2004) to participate in the quantitative data. To obtain sample students from each department, stratified sampling was used. Creswell (2014) suggests using stratification when the population reflects an imbalance on a characteristic of a sample. Kothari(2004) states that stratified sampling technique is generally applied in order to obtain a representative sample if a population from which a sample is to be drawn does not constitute a homogenous group. The researcher used this sampling method because there was similarity within the department and difference among the department. Systematic random sampling technique was applied to obtain respondents from each section and was included in quantitative data.

As Kothari (2004) indicates to select items from each stratum, systematic sampling can be used in stratified sampling technique. To allocate the sample size for each stratum, $n \cdot P_i$ stratified sample calculation of Kothari (2004) was used. That was, P_i represents the population included

in stratum and n represents the total sample size. For example, a sample size $n = 131$ was to be drawn from a population of size $N = 199$ which is divided into six strata (i.e. Sections). They are 2nd and 4th year health officer department students, 2nd and 4th year midwifery, and 2nd and 4th year nursing department students. For instance, the number of 2nd year public health officer (PHO) department students is 50 that was $N_1=50$, so $p_i = 50/199$. To obtain the representative sample from this section, $n_1 = n \cdot p_i$ that is $n_1 = 131 \times 50/199 = 32.91$. Hence, 33 respondents were selected from 2nd year health officer department students by systematic sampling. Accordingly, the number of students participants selected for the quantitative data was shown in the following table.

Table 3. 1: Student participants for the quantitative data

Departments	Level	Total no of students	Number of participants
PHO	2 nd year	50	33
	4 th year	21	14
Nursing	2 nd year	48	32
	4 th year	25	16
Midwifery	2 nd year	35	23
	4 th year	20	13
Total		199	131

The sample size 131 was 65.83% of the target population (199).

However, for the interview, 18 students were systematically selected. Dornyei (2007) suggests that an initial sample size of 6-10 people is appropriate for qualitative research. Hence, 18 students (6 from each department) from the College of

Health Sciences were chosen for the interview through a simple random sampling technique. However, due to data saturation, the researchers only interviewed 12 students. Plano Clark and Creswell (2015) define that reaching “saturation” is the point in the study when the researchers feel that they are no longer obtaining new information from the new informants rather than repeating what the previous informants have already revealed. Dornyei (2007) also points out that saturation is the point when researchers have all the data needed to answer the research questions and become ‘empirically’ confident. Qualitative inquiry is not concerned with how representative the respondent sample is or how experience is distributed in the population, but the main aim of sampling is to find individuals who can give ample insights into the phenomenon under study in order to maximize what can be learned (Dornyei, 2007).

3.3.3. Instructors

This study comprised instructors from both English language department and major subject area courses. According to the information obtained from the college, there were two English teachers who provided communicative English language skill courses and 10 major subject area course instructors. Both English instructors were chosen by available sampling technique. Six instructors who had been teaching the major subject area courses during the study were selected for the interview, and three of them were chosen for the observation. The selection was made using a simple random selection method.

Major subject area course instructors were included in this study because the researcher believed they could provide necessary data about the English language required for their students in their academic and professional careers, the difficulties students face when performing tasks and activities, and their students' English language proficiency. The researchers believe that subject area instructors can provide necessary data about English language skills needed for their students because they can identify what students do with English language from their teaching experiences.

3.3.4. Health Professionals

Health professionals were also purposefully chosen from Dubti General Hospital for the observation and interview. To develop a relevant course, it is required not only to study the

current students' learning needs, but also to identify what their future needs are, which was done by incorporating medical experts and teaching staff (Antic & Milosavljevic, 2016). Two clinical instructors who were teaching internship students were chosen for the study within purposive sampling. They were chosen based on the subject they were teaching during the study. Internship students were taking four subjects (Internal medicine, surgery, gynecology, and pediatric). Two subjects (surgery and gynecology) were selected with simple random sampling.

In addition to these clinical instructors, health professionals (health officers, nurses, and midwives) were chosen for the interview from Dubti General Hospital. Two respondents from each department were chosen from the hospital. In total, eight health professionals participated in the interview. Health professionals who were on duty at the time of data collection were chosen by purposive sampling technique. The researcher believes that the professional activities that health practitioners engage in on a daily basis can provide data on students' future professions. They were primarily chosen to collect necessary data on the English language needs of health science students for their future professional activities, as students might be hesitant to provide such data if they were unsure of what would happen in their future professional duties.

In general, this study's target population included health science students, ELT instructors, major subject area instructors at the health Science College, and health practitioners working at Dubti General Hospital. Subjects were chosen based on the perspectives of various scholars (eg. Hutchinson and Waters, 1987; Robinson, 1991; Dudley-Evan and St John, 1998; Richards, 2001; Long, 2005; Nation and Macalister, 2010; and Basturkmen, 2010). They recommend using multiple sources of information to identify students' English language needs.

3.3. Data collection instruments

The necessary data for this study was collected using both quantitative instruments (questionnaire and test) and qualitative instruments (observation, interview, and document analysis).

3.3.1. Questionnaires

The questionnaire primarily dealt with the students' opinions to look into their target needs and learning needs. As Hutchinson and waters (1987) state target needs is what the learner needs to do in the target situation, whereas learning needs are what the learners needs to do in order to

learn. Target needs can be categorized as necessities, lack and wants, so the questionnaire were used to elicit students' required knowledge (necessities) and subjective needs (wants). This information helped the researcher in determining students' English language needs in academic study and professional contexts, including their English language learning preferences. Thus, the results found from the questionnaire provided an overall picture of the study concerns, which were then clarified or developed by an in-depth qualitative investigation in the second phase.

It comprised students' background information, students English language needs for target situation, students' learning preferences, and students' opinion on the assessment of English language course being delivered. Specifically, the students' questionnaire had five parts. The first part asked for students' background information like demographic information, their field of study, mother tongue and year of study in university. The type of questions was open ended and rating in the box provided.

Part two deal with eliciting students' opinion regarding the frequency of activities in every language skills frequently used in their field of study while part three dealt with eliciting students' opinion on English language frequently needed for future professional career. The type of questions were Likert scale which the respondents were required to rate frequencies on a scale ranging from never needed to always needed, numbered (1-5).

Part four dealt with identifying what students wished to learn. In other words, items in section 4 were designed to identify the English language students' preference of learning English. The type of questions were Likert scale which the respondents were required to rate their agreement or disagreement on a scale ranging from strongly disagree to strongly agree, numbered (1-5).

Lastly, items in part five were aimed to elicit the students' responses regarding the relevance of first year English language delivered as a common courses (communicative English language skills I and II) contents to their fields of study. In this part, the type of questions were also Likert scale which the respondents were required to rate their agreement or disagreement on a scale ranging from strongly disagree to strongly agree, numbered (1-5).

The questionnaire was written in English because the researcher believed that the students at university level can understand the language. The wording of the questions were also written in clear and easy English language in which the students provide their response by rating thick

marks in the Likert scale numbered (1-5) and by jotting down additional response if they could have .

The questionnaire is the most commonly used tool in needs analysis (Long, 2005). The questionnaire was adapted from commonly used needs analysis models (e.g., Basturkmen, 2010; Dudley-Evans & St. John, 1998; Hutchinson & Waters, 1987) and previous empirical studies (e.g., Abdullah, 2005; Alfehaid, 2011; Abuklaish, 2014, Chatsungnoen , 2015; Farhat, 2012; Fortanet-Gomez & Raisanen , 2008; Long, 2005; Richards,2001). Furthermore, a pilot study was undertaken to check the questionnaire's validity.

Hutchinson and Water (1987) provide target situation analysis frame work and learning situation analysis framework. In addition, Dudley-Evans and St John (1998), Long (2005), Nation and Macalister (2010), Basturkmen (2010) and Paltridge and Starfield (2013) discussed frame work for need analysis. In each frame work they point out a set of questions to be used to investigate students' language needs. Hence, the researcher was convinced that these questions adapted were important and could answer the present study's research questions and satisfy all need analysis frame work mentioned by the above researchers.

As a result, the researcher framed his questionnaire depend on these frameworks. The point scale format was slightly adapted from the formats existed on Richards (2001) questionnaire of need analyses. Each item then adapted in health science context depending on the need analysis questionnaires existed on Basturkmen (2010) and Paltridge and Starfield (2013) because the researcher believed that they match with the present research objectives.

3.3.2. Test

Language tests are instructional instruments that are utilized in the second step of Corporate Language Audits (Long, 2005). He identifies four stages of an audit: identification of foreign language skills required by employees to complete their communications tasks, determination of employees' foreign language proficiency, association of the existing level of command with the required level, and indicator of educational language policies that the company can implement to improve their employees' foreign language proficiency. Looking at where the learners are right now (lacks) is a crucial aspect of need analysis (Nation and Macalister, 2010).

Therefore, to gain an understanding of learners' current abilities in relation to English language knowledge at the time of study, a test of English as a foreign language (TOEFL) was administered. According to Nation and Macalister (2010), learners' general competency may be used to predict how they would approach any language activities. They emphasize that students' scores on standardized proficiency tests such as the TOEFL or IELTS may be a valuable source of information, especially when they provide information on specific components of language competency such as writing or speaking.

TOEFL is a test aimed to check the English language ability of those speaking English as a second or foreign language, as well as graduate or undergraduate students who wish to study at higher education institutions in North America (Rogers, 2011). There are the Internet-based TOEFL (iBT) and Paper-based TOEFL (PBT). Though (iBT) began to be administered in 2005, the original (PBT) is still given in many location around the world. AS Rogers (2011) indicates, whether the iBT or the PBT is taken depending on where the test is administered. . Therefore, for the fear of sufficient internet access in the location of present study, the researcher was forced to use PBT than iBT. As Rogers (2011) indicates TOEFL is the most standardized tests which is mainly used in North America. The researcher believed that this standardized test can also measure students' proficiency level in Ethiopia as English is foreign language for Ethiopian university students.

Thus, paper-based test (PBT) or paper-based TOEFL was given for health science students to identify their current language proficiency level then. The Paper-Based TOEFL has three parts. They are Listening Comprehension, Structure and Written Expression, and Reading. Besides, the Test of Written English (TWE) is an essay that is given to provide a writing score.

3.3.2.1. Test format

Except for the TWE prompt, all of the PBT questions are multiple-choice with four response options. The test is divided into three portions, each of which has its own time restriction. The sections are always presented in the same sequence. The first is listening comprehension. It has 50 items and is expected to be completed at 30 minutes. The next is structure and written expression which has 40 items and has 25minutes time allotted. The last section is reading comprehension that has 50 items and expected to be completed at 55 minutes. In general, all the

three sections have total 140 items which should be completed at 1 hours and 50 minutes. However, the test of written English (TWE) is one question which asks to write a short essay on a specified topic in twenty-five minutes.

The researcher took these formats, the number of items and the time allotted as they were so as to measure the students' present level of English language proficiency according to the international TOEFL scale measurement.

3.3.2.1.1. Section 1: Listening Comprehension

The TOEFL listening comprehension section is always administered first. The goal of this segment was to assess students' grasp of spoken English. The guidelines for this part were provided both on the audio and in the exam paper. The listening texts were presented by audio. There were four speakers. They were two males and two females. They all read the items at normal speed and with standard North American accents. The items were presented in a conversational tone. The listening comprehension format has three parts: part A was dialogs which had 30 items; part B is extended conversations(2 conversations) which has 7-8 items and part C is mini-talk(3 talks) which have 12-13 items. In sum, listening sections has 50 items that were expected to be completed at 30 minutes. The researcher provided listening as mentioned depending on the procedures mentioned above by connecting loud speaker to his laptop for the listening text.

3.3.2.1.2. Section 2: Structure and Written Expression

This section tested students understanding of English grammar and usage. It had two parts: structure and written expression. The structure section comprised 15 items. All of the items were sentence completion. The written expression section had 25 items. Each item tests error identification. Generally, structure and written expression section comprised 40 items and completed in 25 minutes.

The sentence in each item was about academic subject. Any cultural references in the sentences were to the culture of the United States or Canada, so references to people, places, and institution in the sentences might not be familiar with Ethiopian students. However, unfamiliarity of the references couldn't hinder to identify the correct structure of the sentence. On the other hand, the

researcher slightly adapted some reference which he thought could confuse students in Ethiopian context.

3.3.2.1.3. Section 3: Reading Comprehension

The reading comprehension section tested students' ability to read and respond to English-language questions. It included five reading texts. Each text was followed by eight to twelve questions, for a total of fifty questions: The first passage had 11 questions; second passage had 12 questions; the third passage had 10 questions; the fourth passage has 8 questions and the fifth passage had 9 questions.

All questions have four options which had equal grammatical and logical choices of distracters. Correct answer was based on the facts contained in the text. Broadly, the reading comprehension questions were categorized into eight types of questions. Ten percent of the questions were asking main idea/main topic/purpose. These questions asked the students to identify an answer choice that correctly summarizes the author's main idea, the subject of the whole passage, or the author's reason for writing the passage.

Factual questions which asked the respondents to seek and identify answers to questions concerning particular facts and detail in the text, consist of 24% of the questions, whereas negative questions which inquired about options not mentioned in the passage accounted for 9% of the questions. Scanning questions which asked where in the reading the topic was that where some topic was discussed, and inference questions, which asked the students to draw inferences based on evidence in the text cover 4% and 12% respectively. Vocabulary-in-context questions which comprised 26% of the questions asked examinee to identify the meaning of a word or phrase as used in the passage, and reference questions which encompassed 10 % the questions asked students to detect the noun to which a pronoun or other expressions referred. There were also 5% of the question types that occasionally asked about the readings.

Generally, all the reading items had closed stems and open stems. Closed stems were items that begin with direct question; for example, which of the following is the main title of the text? Open stems were items that began with incomplete sentence like the main title of the text is_____.

3.2.2.3. Test of Written English

The Test of Written English (TWE) was made to evaluate students' ability to write an academic essay (Rogers, 2011). He points out that it is frequently given with paper-based tests administered by ETS, and that it is given before the other three sections of the TOEFL exam. TWE consists of a single essay topic known as a prompt. Students spent thirty minutes writing an essay based on the prompt. The essay should have approximately 200-300 words long and should have four or five paragraphs. TWE prompt often asked to write a contrast/opinion essay. Accordingly, for this study, the prompt asked examinee to contrast whether university students should focus on their field of study and others believe that university student should get general education. Students were expected to contrast these points of view, and then defend one of their arguments to indicate their position. They were expected to write 200 to 300 words long essay which had four or five paragraph within thirty minutes time allotted.

As PBT TOEFL test, the writing part was administered alone before the other section. Then, it was corrected by the researcher based on the general organization, development, clarity, and effectiveness of students' writing. The score was calculated on a scale of 1 to 6, with half point scores (5.5, 4.5, and so on) also provided. The scoring system was based on the ETS explanation of scores (see Appendix-S). TWE is scored independently from the rest of the test and has no bearing on students' total TOEFL score. The average score of TWE score is between 3.5 and 4.0.

3.3.3. Observations

Observation was another tool used to collect data in this study. The rationale for using it was to directly observe why and how the English language was used in health science subject area courses, as well as students' future professions, based on the overall picture of the results obtained through quantitative data and results. According to Richards (2001), observing students' performance in a target situation is one way to assess their needs. The observation was conducted in two areas: the subject area classroom lecture and the hospital's wards teaching as well as treatment. Then, the findings obtained from observations explored why English language skills were needed in target situation, the gaps existed between the learners current English language skills and the English language needed in target situation. Observation data was also

used to identify professional communication information that helped to get an understanding of what types of English language contents could be incorporated into the health science students English language course.

3.3.3.1. Major Subject area class Observation

For the classroom observation, the major subject courses were observed to collect data on why and how the language is used in health science subject area courses' classroom and English language difficulties observed from both students and instructors while using English. The observations were made mainly to refine, elaborate or extend the results obtained in quantitative data. Thus, the observations aided in understanding how English is used by students and instructors in those subject areas, which could be used to design appropriate course materials. Major courses of public health officer, midwifery and nursing classroom were observed. The subject observed were randomly selected with simple random sampling from major area courses delivered during the study.

The researcher observed four consecutive lessons/ episodes for each class observed. The observation duration was almost longed for a month. In this observation, the researchers used field notes and audio recorder. Field not was used to document unrecorded events observed by the researcher. The audio recorded lesson was transcribed and analyzed. Using these data sources, the researcher attempted to document the entire class physical environment regarding why and how the English language needed in those discipline.

3.3.3.2. Hospital ward observation (shadowing)

For the health professionals' observation, the selected health practitioners were shadowed during their professional work. Dudley-Evans and St John (1998, p. 135) state that "To shadow someone is to follow everything they do for a block of time such as a day, several consecutive days or one day a month." Nation and Macalister (2010, p. 27) suggest "Observation of skilled and unskilled writers performing target tasks may reveal important areas that need attention during a course." Hence, the researcher observed two subjects when learning in wards (Surgery and Gynecology) and when delivering health care in that ward. The subjects were selected by simple random sampling. These internship students were observed when learning in medical and GYN wards and when giving medication. Every of their activities in relation to the English

language use from medical ward learning to treating patients were observed. Hospital wards observations were aimed to identify why and how the English language that the health practitioners used: in their every professional activity, language difficulties observed while using English language skills in their professional activities and the English language skills (listening, speaking, reading and writing) predominantly used in the health professional activities.

Consequently, the researcher made 12 observations with two subjects (six for each) while learning in medical wards as well as while treating the patients. The observation was non-participant observation. The researcher did not involve in any action rather than recording and taking field note for unrecorded behavior.

3.3.4. Interviews

In this study, the interview was the second qualitative data collection tool used to elaborate or extend the data and results obtained through the questionnaire and test. Furthermore, it was used to confirm data collected through observation and document analysis. The interview was semi-structured.

In semi-structured interviews, the interviewer designs preplanned questions or prompts that encourage interviewees to express their ideas on specific issues in detail rather than using ready-made response categories, which would restrict the depth and breadth of the respondent's story. (Dornyei, 2007). He points out that this kind of interview needs an 'interview guide' (Or 'interview schedule/Protocol' which needs to be piloted in advance. The interview schedule mainly helps the interviewer in five different areas: (a) by ensuring that the topic is covered and nothing important is overlooked; (b) by providing appropriate question wording; (C) by offering an outline of important probe questions to use when needed; (d) by offering a template for the opening statement; and (e) by giving opportunities to give a list of comments (Dornyei, 2007).

Thus, Semi structured interview was employed to collect in-depth information regarding English language needs of health science students from four groups of subjects: the students, ELT (communicative English language skills I and II course) instructors, subject area course instructors and health practitioners. Accordingly, interview schedules were used in this study to

help the researcher gather detail information depending on the result of quantitative data and the observation.

3.3.4.1. Students' Interview

The interview was designed to gather information from health science students regarding: 1) their English language needs for their academic studies; 2) Their English language needs for their professional studies; 3) their wish to learn the English language; 4) their difficulties in using English language, and 5) their beliefs on the relevance of English language courses in use for their English language needs in both academic study and future profession.

3.3.4.2. Instructors' Interview

Both Communicative English language skills courses' instructors and subject area courses' instructors were interviewed. Communicative English language skills course instructors were interviewed to collect data on their students' interests in the course, language learning preferences, language proficiency, language gaps, and the relevance of communicative English language skills courses to students' language needs. For subject area courses' instructors, the interview were used to elicit information on: 1)the importance of English language for health science students in their academic studies as well as future professional career; 2) what English language they perceived could help their students' needs; 3 what they did with English language in their professional activities; 4) what English language problems they observed from their students in their academic progress (for example, in writing the assignments, in reporting or in expressing their feelings regarding their subject areas courses); 5) the English language skills and knowledge their students lack in doing tasks or activities; 6) their believes and experiences on the overall benefit of English language for health science students; and any additional information they wanted to provide.

3.3.4.3. Health practitioners' interview

With health professional, the interview were used to obtain data regarding: 1) the importance of English language in their professional activities; 2) the effect of English language on the health care services it provided in health care center or hospital; 3) their experiences of the purpose of fluent command of English language in in health care provision; 4) how often they used the

English language in their professional activities; 5) what they did with English language in their professional activities; 6) what problem they or their colleagues encountered in using English in their profession; 7) the English language courses they took in university or college and the courses' contribution in their current professional duties, and their further suggestion if they could have.

3.3.5. Document analysis

In this study, the document analysis was also used in refining elaborating and extending the quantitative results in addressing the research objectives, and it was also used in confirming data collected by interview and observation. Richards (2001) suggests that it is easier to arrive at decision about the course if more documentation is available. Relevant documentation includes relevant course documents, course work, written comments, institutional documents and course reviews (Richards, 2001). According to Hyland (2006), collecting and analyzing authentic texts is a valuable source of information about target situations when gathering needs data. Long (2005) also indicates that a more direct notice of what occurs in a target domain can be obtained from documents in needs analysis. A commonsense analysis is frequently required to involve knowledge of language items such as vocabulary and grammar (Nation and Macalister, 2010).

Therefore, Active profile of the patients' case history written documents were analyzed to include language items needed in health science students' future professional career. The researcher thought that these document could help to identify students' English language target needs as well as students' present knowledge or lacks because from practitioners' written profile of the patient diagnosis and investigation, all language mechanics could be seen.

In this section, authentic documents of active patient profile written by practitioners and internship students in hospital' were analyzed to investigate the English language skills health science students were expected to use in their future workplace settings such as health centers, hospitals and clinics. According to Dudley-Evans and St John (1998), obtaining authentic workplace evidence is critical for learning about real and carrier content and can serve as a foundation for classroom materials.

To obtain data concerning health science students' English language needs for professional career from document, documents of active profile during the study were purposively selected

from Dubti general hospitals. From these documented profile of the patient: medical history sheet, request forms, operation note, order sheet, prescription paper, referral slip, medication administration sheet and discharge summary sheet written by health professional in English were obtained and attempted to be analyzed. These authentic patient records were obtained from the health staff department of the selected hospital's medical and GYN wards and analysed to identify why and how health professionals used English in their daily routines, thereby indicating the English language needs of health science students in their academic (during the internship) and future professional careers. For example, from a profile or chart of a patient in the GYN ward, the data obtained were: investigation sheet, vital sign sheet (APH, PROM, pre-Eclampsia and HEG....sheets), order sheet, progress note, anesthesia evaluation note, safe surgery checklists, Nursing/ midwifery progress note, admission history, triage evaluation note, referral paper and medication note consequently. All of them were written in English by doctor or health officer, nursing and midwifery according to their professional' duties.

3.4. Data Collection Procedures

The data needed for this study was collected through quantitative instruments (questionnaire and test) and qualitative instruments (observation, interview and document analysis) according to the following procedures. To begin, the researcher discussed with the concerned university administrators and staff and requested their willingness. The university's academic vice-president expressed his willingness to help the researcher with data gathered from their institution. Then, he handed the researcher letters of support to the concerned bodies to aid with data collecting. According to the letter, the college of health science stated his willingness to provide all necessary assistance on the college's behalf. Then, he instructed the department to support the researcher. The instructors also indicated their willingness, signed the letter of consent, and provided full assistance to the researcher throughout the research process.

The researcher also went to Dubti General Hospital with a letter from the university. He, then, discussed the issue with the hospital's chief executive director. The director indicated his willingness and sent a letter of consent to the chief clinical director. The clinical director notified the inpatient director. The inpatient director also directed other case managers to assist the study. The researchers then collected the following data with permission after obtaining ethical approval and informed verbal consent from the participants.

Firstly, PBT TOEFL test was delivered for student participants. Test was delivered before the questionnaire as it needs more students' attention and concentration. The researcher also thought that students might give less attention to the test if they filled the questionnaire first. The researcher told the students that the result of the test was very important for them so that they could do all these questions effectively. However, later, for ethical consideration, the researcher told the students that it was for PhD dissertation only and told them that they could withdraw themselves if they did not need.

On October 14, 2021, the researcher administered the test to 131 selected students in Samara University's hall with the assistance of two major course area instructors. Prior to administering the test, the researcher provided the students with some time management instructions. The test was then administered in accordance with the ETS procedure and time in TOEFL. Except for one student who was sick and did not complete all of the questions, all of the students completed and turned in the paper. As a result, a student's paper was rejected, and the data from 130 students was used in this study.

Next, the questionnaire was administered on October 18, 2021. Here also student participants were given some instructions about the purpose of the study, and they were requested to respond to all the questions genuinely. They were also informed to ask any question for any ambiguity. All 131 students completed and returned the questionnaire.

Having analyzed the quantitative data, then the qualitative data were shaped based on the findings. From the qualitative data, observations were conducted first. Observations, document analysis, and interviews were carried out respectively. The observations were made before the document analysis and interview for two main reasons. Beforehand, the researcher reasoned that if the interviews were conducted first, the instructors and practitioners would be able to adjust their procedures based on the information obtained from them. The second reason was that the researcher intended to incorporate probing questions about aberrant behavior identified through observations and document analysis into the semi-structured interview. For example, the researcher asked the instructor why they used Amharic in such way while the medium of

instruction was English. The classroom observations were made in continuously from beginning day to the end day (see appendix-I) for the procedure.

A total of 12 subject area classroom sessions were observed from December 1, 2021, through January 6, 2022. The next was hospital ward observation. Here, the researcher observed internship students learning at hospital ward as well as when they were treating the patient. As nature of observation was shadowing, the researcher observed any action of the practitioners observed. He was following all of the participants' activities for a set amount of time based on their availability on duty. Dudley-Evans and St John (1998, p. 135) state that “To shadow someone is to follow everything they do for a block of time such as a day, several consecutive days or one day a month.” Hence, the ward observation sessions were observed from February 8, 2022, through April 6, 2022 (see appendix M). During the observation, sample patient profile were photocopied for analysis. Then, the analyses of the documents were made.

Then, the interviews were conducted with Students (see Appendix-O), ELT instructors (see Appendix-P) and health practitioners (see Appendix-Q). Then, major subject area courses' instructors were interviewed (see appendix-R) for the transcriptions.

3.5. Data Analysis Procedures

As stated earlier, in order to obtain necessary data for this study, the researcher used explanatory sequential mixed methods design. According to this design, the data were collected in two phases. In the first phase, the quantitative data (questionnaire and test) were collected and analyzed. Then, the first impression for this study was obtained from the results of the quantitative data. Accordingly, the qualitative data were shaped to obtain in depth information regarding health science students English language needs. Then, the data were collected and analyzed accordingly. A sequential explanatory mixed methods design is a plan used by a researcher to collect and analyze quantitative data in the first phase and obtain quantitative results which help to plan the second phase and then collect and analyze qualitative data in the second phase so as to help explain or elaborates on the quantitative results (Plano Clark and Creswell, 2015; and Creswell, 2014).

Creswell (2014) suggests integrating or comparing the results of two data base side by side in a discussion and mixing of the two types of data should be made at the interpretation or discussion.

Thus, this study employed two approaches of data analysis: quantitative first and then qualitative followed. Data was first analysed separately for quantitative and qualitative purposes. Then, mixing occurred during the discussion and interpretation so that information gathered from various data sets could be integrated in answering the study's research questions.

3.5.1. The Quantitative Data analysis

This section describes the analyses of the quantitative data obtained from the questionnaire and the test instruments.

3.5.1.1. Questionnaires

The data collected through questionnaires were analyzed quantitatively. First, students' answers to closed-ended questions were classified and coded in respect to answering the research questions. The data was then analysed using descriptive statistics, mean, and percentage with SPSS 25 version computer software to identify individual responses to each item in the questionnaire. Before we can look at associations with other factors, acquiring descriptive information on how our respondents have responded to specific questions might provide us helpful information about our variables and our research topics (Muijs, 2004). Finally, the findings were discussed in connection to the qualitative data findings and the research question of this study.

3.5.1.2. English proficiency test

As previously stated, the exam was given primarily to collect data in order to determine students' current English language proficiency at that time. The exam was then corrected, and the results were converted into scale scores based on which ETS utilized to determine students' PBT TOEFL test results. Except for the TWE prompt, all of the PBT questions are multiple choice, with four response options. Each question has one right answer and one mark. The researcher rectified the test items using the answer key given by Rogers (2011), as follows.

First, the TOEFL PBT was scored based on the answer key given by Rogers (2011). Then, the raw test results (listening comprehension, structure and writing expression, and reading comprehension) were then scaled to the sectional scores. The total number of right answers on

each of these parts was equated to a scaled score. Listening comprehension, structure, and written expression all have scaled scores ranging from 31 to 68, while reading comprehension scaled scores range from 31 to 67. According to ETS, the PBT total score is the sum of these three sectional scores multiplied by ten and then divided by three, with a range of 310-677. However, the score for the Test of Written English (TWE) is shown separately from the overall score. They are graded from 1-6 in half-point increments: off for not composing the subject and INR for not writing the essay. The projected average TWE score ranges from 3.5 to 4.0 (Rogers, 2011).

ETS has supplied the average scores of all students who took the TOFL PBT in each section. They are 53.1 for listening comprehension, 52.1 for structure and written expression, 51.9 for reading comprehension, and 524 for overall score, with TWE ranging from 3.5 to 4.00. According to Rogers (2011), most undergraduate programmes need scores ranging from 500 to 550 although every higher education institution has its own admittance criteria.

To calculate descriptive statistics (mean and percentage), the SPSS 25 version computer software was used. The mean values and standard deviations can present the average level of the student based on Standardized TOEFL Test score scale. Furthermore, the majority of students' incorrect answers to test questions indicated a lack, whereas correct answers to test questions indicated their current knowledge. This was observed in relation to the mean and percentages manipulated by SPSS. An independent T-test was also used to compare the results across grade levels

3.5.2. The Qualitative Data Analysis

The qualitative data were analyzed as the following procedure. First, the interview and observation were audio recorded and transcribed. All audio recordings from observations and interviews were meticulously transcribed to capture the speakers' exact performance, including grammar errors, interruptions, repeats, pauses, unfinished utterances, and Amharic language code mixing. The transcriptions were then peer-evaluated and member-checked. The researcher made sense of the data by analyzing the transcripts. The transcripts were then coded and grouped based on themes. Finally, the analyses were conducted based on thematic categories. According to Creswell (2012), thematic analysis is the process by which researchers categorize data to

construct themes. A thematic analysis was used by a researcher to analyze qualitative data collected through interviews, classroom observations, and field notes.

Thematic analysis was conducted in the following procedures: familiarization through data preparation, organization, and review, data transcription and coding, and use of findings in discussions and interpretation. The first step in the analysis was to transcribe all of the audio recorded data and check for completeness. Creswell (2014) defines transcription as the conversion of audiotape recordings or field notes into text data. The audio recordings of the observations and interviews with students, an ELT instructor, a major subject area course instructor, and health practitioners have been transcribed. Next, read the transcripts as a whole to get a sense of the initial impressions. The transcribed text was then loaded into the computer assisted qualitative data analysis softer (CAQDA) NVivo version 10 software for data storage and thematic analysis. The researcher chose this software because it facilitates data organization, categorization, and retrieval. In the current study, it also helped the researcher code and transcribe the interview and audio-recorded classroom observations using free and tree nodes. The free node can be coded in parallel with the open (initial) node, whereas the tree node is written in axial order. NVivo version 10 was utilized to support open coding techniques, with the primary purpose of developing models and visualizing data presented in this study.

3.6. Validity and Reliability of the Study

The validity and reliability of the research instruments used were assessed in relation to the study. It is known that using mixed methods primarily improves the validity and reliability of a study.

3.6.1. Validity

The researcher used a variety of methods to collect valid and meaningful data for this study. The first approach was using mixed method. Dornyei (2007) notes that using mixed methods designs improves the validity of both the instruments and the results. The second was the quantitative instrument (the questionnaire) was adopted from commonly used needs analysis models and known empirical studies. The PBT TOEFL was adapted from standard PBT TOEFL test questions obtained from AAU's Institute of Educational Research Testing Center (IER) under the

guidance and facilitation of his advisor. The findings and results of the quantitative data shaped the qualitative data.

The researcher also used peer review or debriefing methods with his friends (three PhD candidates and two PHD ELT instructors) to assess the consistency of the tool development. Furthermore, the supervisor evaluated and commented on each question. Several adjustments and improvements were done in response to the feedback. After the supervisor approved the instruments, they were pilot tested for further validation. Finally, after input from the pilot study’s examiners and approval from the advisor, the necessary changes were devised and executed for the final data collection.

3.6.2. Reliability

To check the reliability for this study, Cronbach’s Alpha test coefficient for the students’ questionnaire was used.

Table 3. 1. Reliability Test

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.851	.853	70

Table 2 shows that Cronbach’s alpha standardized items were 0.853. This showed that the items' internal consistency was more reliable. According to Bryman (2012), the reliability or internal consistency of a questionnaire can be determined by calculating the average of all possible split-half reliability coefficients known as Cronbach's Alpha, which ranges between 0 and +1.

3.7. Trustworthiness of the study

The trustworthiness of the study was maintained by ensuring the credibility, dependability, transferability, and confirmability of its findings (Merriam, 2009). Credibility focuses on data correctness or how the findings are congruent with reality, whereas dependability stresses research consistency or reliability. Transferability, also known as external validity, evaluates how well a study's findings may be applicable to other situations. The researchers are assuring readers that they may believe that the final results represent the viewpoints that were in the data, not just what the researchers expected to find (Plano Clark and Creswell, 2015). Peer review or debriefing, as well as member checking, were employed to confirm the credibility and dependability of the results (Creswell, 2014).

This study's credibility was greatly enhanced by obtaining data from a variety of sources, including health science students, ELT instructors, Health science major subject area instructors, health professionals, and actual documents utilized by these experts. Five professionals in the field of English language education were held to check the credibility of the data gathering approach, data analysis method, and conclusions. The experts' pertinent insights contributed to the study's rigor. All interviews and observations were audio recorded and transcribed, with samples linked to the appendix. Concerning member checks, the participating instructors and health professionals got the study findings as well as complete transcriptions of the observations and interviews for validation. This caused the findings to match the individuals' true voices. A voice recording was also saved for future reference.

To ensure data dependability in this study, the researcher worked hard to precisely define the research objectives and perform a thorough review of the literature. Similarly, to guarantee that the study could be transferred, the researcher provided information about the participants and the research location. A detailed description of the participants and the study's findings was provided, as well as quotes from the collected data. Furthermore, a full explanation of the study's overall methods, such as data collection and analysis, was provided.

3.8. Ethical Considerations

The site where the research takes place should be respected, and this respect should be shown by obtaining permission before entering the site (Creswell, 2014). As a result, in accordance with research ethics, the researcher obtained a permission letter from the higher official of the sites (Samara University academic president and chief executive director of the Dubti General Hospital) indicating that they would assist the researcher with the necessary materials for the study.

The teachers, students, and health professionals were then given informed consent forms to sign, indicating their willingness to voluntarily participate in the study (see appendix- 1 and 2). Furthermore, all participants were given detailed information about the research objective and were told that they could withdraw at any time if they felt uncomfortable. To prevent the participants' identities from being revealed, their names were all coded. The pictures of hospital documents were also taken with care to avoid showing the hospital's clients name.

To maintain anonymity, the findings were analysed without naming any of the participants. Their names were changed to codes; for example, instructor one (Inst 1), instructor two (Inst 2), student one (S1), student two (S2), etc., and for clinical practitioners who taught internship students in hospital wards, doctor one (Dr.1), doctor two (Dr. 2), etc., and for health professionals in the hospital: Hp1, Hp2, Hp3, etc.

In conclusion, ethical considerations are critically considered in this study. All participants gave informed consent, ensuring they understood the study's purpose, their rights, and how their data would be used. Confidentiality is strictly enforced, with measures in place to anonymize data and securely store information. The ethical framework guarantees that the research is carried out with integrity and respect for the participants.

3.8. Summary of the pilot Study

The pilot study was conducted with the aim of assessing and confirming the effectiveness of the research instruments which would be used in the main study. There were questionnaires, tests, observations, interviews, and document analyses. During the data collection and analysis

process, the viability of these instruments for the main study was closely monitored. The researcher immediately noted any inconsistencies observed in order to make necessary changes for the main study. Therefore, in this study, a pilot study was conducted before the main study to confirm the appropriateness of the instruments and the procedures of data collection and analysis. The study was conducted on a sample of the study population. In sum, the pilot study was conducted to ensure that the instruments and overall procedures were appropriate for the main study. It was also used to gain insights into the clarity of items in the instruments, as well as whether addition or reduction of a number of items were needed. As a result, the pilot study was used to make necessary revisions to the instruments and overall procedures before they were used in the main study.

3.8.1 Participants

Participants of the pilot study were 45 health science students, 3 major subject area instructors and 3 health professionals. The pilot study was conducted from February, 2021 to May 2021 at Ambo University. The university was selected due to its contextual equivalence (second generation university of Ethiopia) with Samara University.

Questionnaires, TOEFL test, interview, observations and document analysis were pilot tested using the samples taken from the study populations. 45 students filled the questionnaire and took TOEFL test. Observations were conducted with six subject area classes and 3 hospital ward teaching of internship students. Whereas interviews were conducted with 8 selected students, 3 subject area instructors and 3 health practitioners. Active patient profile from selected hospital wards' documents were also analyzed. Some important insights into the quality of data collection instruments and procedures were gained from these data collection and analysis, which were then used to improve instruments and procedures in the main study.

3.8.2. Key findings of the pilot study

The results of the study revealed that the students always needed reading skill in doing activities such as reading test and exam questions, reading instruction for assignment, reading course hand out and reading instruction for labs respectively in their field of study, whereas reading instructions (drug use leaflets, physician decision), reading prescribed drugs and all activities after the surgery are written, reading medical books, articles, magazines, etc. , translating English

medical or health information to their own language and reading graphs, charts and tables for their future profession.

This study also indicated that writing skills in English in health science field of study were always needed to write project reports/term paper, to write notices from lecture, to write research paper, to take note from the course book and to write lab or field reports. While for their future health professional careers writing skills in English were always needed to write referral letters, to write reports (case reports, patient care and follow-up reports), to write forms (prescriptions, vital signs, admission, discharge summaries, etc.) and to write project proposal or research.

The results also showed that speaking skills were always needed in health science field in giving presentation, participating in class discussion and asking and answering questions in class, but always needed in students' future health profession: in making presentations at seminars and conferences, attending medical meetings /conferences, Speaking about medical related topics and Communicating with colleagues consequently in their order of importance, but they rarely or never needed communicating with patients and with patients 'care taker. As obtained from health professional interview and hospital observation, the last speaking skills (communicating with patient and patient care taker) was very important in health profession, but the respondent perceived that they were not needed because communications were not made in English, but in Amharic.

Learners also thought that in health science academic field of studies, listening skills were needed, to listen to lecture, to listen to instructions and explanations in labs, to listen to radio, TV programs or films about health sciences and listening to class discussion in their order of degree of recurrence, whereas in their future health professions, listening at meetings, seminars or conferences and listening to presentation in English are regularly needed skills , while listening to colleague is sometimes needed, but listening to patient is never or rarely needed. Listening to patient and listening to foreigners were least needed listening skills in English because they did this in Amharic language.

The findings revealed that health science students preferred learning English for their academic studies and future profession. The findings also revealed that health science students required English language to describe a patient, a case, diseases, and medications in medical terms.

The study also showed students' current situations at the time of study. Participant students demonstrated good proficiency in structure and written expression, implying that they understood grammar and usage. The reading test results also revealed that students could read and answer questions written in English. However, they lacked listening skills, indicating that they struggled to understand spoken English. Furthermore, they had very poor writing ability.

The founding also confirmed that a lack of necessary English language and skills background created gaps in academic study as well as the delivery of health care systems. Finally, the pilot study found that both communicative English skills (I and II) courses taught to first-year students did not meet the English language needs of health science students in both their academic field of study and their future professional careers.

3.8.3. Insights Gained from the Pilot Study

In conducting the pilot study, necessary insights were obtained regarding the instruments and the overall procedure. Hence, depending on the results obtained from the pilot study, the researcher made some significant changes in the instruments and procedures of data collection for the main study as follows:

1. Inclusion and exclusion of some items from the students' questionnaire:

Part IV and VII of the questionnaire were excluded in the final version. Part IV questions in Likert scale format were intended to investigate how important are the English language skills to do activities in in health science fields of study and to rank each activity according to their importance in their field of study. However, this part was almost similar with part II of the questionnaire which asks the frequencies of the English language skills needed to do activities in their fields of study and to rate each activity according to the frequency of needs. Since it appeared redundant it was excluded from the questionnaire for the main data collection. Part VII of the questionnaire which was aimed to identify the learning situation in learning English language courses, and asked the respondents to indicate to what extent they agree or disagree with each statement was also omitted as it appeared superfluous, and the information was better obtained by other tools like observation and interview than this part as commented by supervisor during the pilot oral examination.

2. Exclusion of communicative English Skills' course content analysis and inclusion ELT instructors' interview

Communicative English Skills' course content analysis was originally intended to obtain data to identify if they addressed the health science students' English language needs. That was if the English language courses which they took as fresh man satisfied their English language needs, particularly, in the target situation use. However, as the supervisors commented the researcher during oral examination of the pilot study, the courses were designed not intended to address health science students' English language needs, so no need of analyzing the course materials that have another objective. They suggested the information about the course materials can be obtained by interviewing the students or instructors who delivered the course. The researcher was also convinced by the remarks, thus the Communicative English Skills course content analysis was removed from this study and an interview with ELT instructors was included.

The nature of the study needs different instruments from different subject. As a result, vast data was collected which could create confusion on the researcher. Later, the researcher realized that it needs to take important note for each and every situation during the data collection and analysis immediately after the data was collected for the main study.

Besides, there were also interview questions which were similar because the respondent pointed out that they had already answered, or replied stating that they had answered before. Then, the researcher realized that though they seem different, some interview question were almost similar. Thus, they were revised for the main study.

After collecting the data for the pilot study, the researcher tabulated the data on a spreadsheet to feed it on the SPSS 25 version software computer. Just, before feeding it into the computer software, all the response of the questions were checked to see how much each point on the five-point scale was scored to decide whether the rating scales were appropriate and each item was filled appropriately by each respondent. It was observed that all the points on the scale were rated appropriately for all items. Hence, this indicated that the scales could be used for the main study.

The questionnaire also firstly prepared in the table depending on the research questions. Each item in the table was given letters for identification, but this created problems during entering raw data to SPSS 25 version software. So the researcher used similar number with letter alphabet for items of similar category (egg. 1A, 1B, 1C....2A, 2B, 2C...etc.). This style was used for the main study.

After administering the questionnaire to the students, the result were analyzed to examine the reliability of the questionnaire. To check the reliability for the items, Cronbach's Alpha test coefficient for the students' questionnaire was used. The result was 0.852. This indicated that the internal consistency of the items were more reliable, so this made the researcher accept the reliability of the instrument with confidence to use for the final study.

The researcher initially planned to observe hospitals and health centers in order to collect data from health professionals such as health officers, nurses, and midwives about English language needs in students' future professions, but all of the necessary data and professionals were already available in the hospital. As a result, there was no need to observe a health-care center for the main study. Thus, data on the future careers of health science students were gathered from Dubti General Hospital for the main study.

CHAPTER FOUR: RESULTS

4.0. Introduction

This study was aimed to investigate into health science students' English language needs aiming to provide findings which help develop course material frame work which are appropriate to students' language needs. This chapter presents the analyses and the findings of the qualitative and the quantitative data collected for the main study. The study employed mixed methods approach and collected both quantitative and qualitative data. Hence, the quantitative data (questionnaire and TOEFL test) were analyzed in the first section. Following that, the qualitative data findings (observation, interviews, and document analysis) were presented.

A. Results of quantitative data

4.1. Results of data collected via students' questionnaire

In this study, the questionnaire was one of the instruments used to collect data from the students. It primarily dealt with the students' opinions to look into their target needs and learning needs. Hence, the questionnaire was used to elicit responses from students regarding how often the English language skills are needed in doing activities in their academic field of study and in their future profession. It also helped in identifying students' preference of learning English language (wants) and their views regarding the appropriateness of the English language courses they took in their first year to their needs. These information was used in this study in providing with the first impression which further explored by qualitative data in investigating students' English language needs in academic study as well as in their future profession. The questionnaire included students' background information, students' experiences of English language needs for target situation, their learning preference and their experiences of the relevance of English language courses they had already taken.

More specifically, the students' questionnaire had five parts. The first part asked for students' background information like demographic information, their field of study, year of study in university and mother tongue. The types of questions were open ended and rating in the box provided. Part two dealt with eliciting students' opinion regarding the frequency of activities in every language skills frequently used in their field of study to respond to the first research

question. Part three deals with eliciting students' opinion on English language skills frequently needed in doing activities in their future professional career to respond to the second research question. The type of questions were Likert scale which the respondents were required to rate frequencies on a scale ranging from never needed to always needed, numbered (1-5).

Part four dealt with identifying what students wished to learn. In other words, items in section four were designed to identify the English language students preferred to learn for the target situation to respond to the third research question. The type of questions were also Likert scale which the respondents were required to rate their agreement or disagreement on a scale ranging from strongly disagree to strongly agree, numbered (1-5).

Lastly, items in part five were aimed to elicit the students' experiences regarding the English language course contents they had learned to identify the language contents expected to be addressed. In this part, the type of questions were also Likert scale which the respondents were required to rate their agreement or disagreement on a scale ranging from strongly disagree to strongly agree, numbered (1-5).

4.1.1. Background of the Students

Section one of the questionnaires was used to obtain data regarding background information about the participants themselves. This section indicated the respondents' demographic information, department, level of education and their mother tongue. 131 participants were selected from three departments: department of public health officer, department of nursing and department of midwifery in the health Science College of Samara University. The participants were selected randomly from the target population of 199 students in the academic year of 2021/22 GC. All of the participants replied to the questionnaire and gave back. They were second year and fourth year level. Table below illustrates the background information of the participants.

Table 4. 1. The students' background information

Characteristics	Categories	Frequency	Percent
Sex	Male	71	54.2%
	Female	60	45.8%
	Total	131	100%
Age	Below19	-	-
	20-24	131	100%
	25-29	-	-
	Above30	-	-
	Total	131	100%
Department	PHO	47	35.9%
	Nursing	48	36.6%
	Midwifery	36	27.5%
	Total	131	100%
Level or years of study	2 nd year	88	67.2
	4 th year	43	32.8
	Total	131	100%
Mother tongue	Amharic	45	34.4%
	Afan Oromo	32	24.4%
	Tigrigna	25	19.1%
	Others	29	22.1%
	Total	131	100%

AS the table above illustrates, 71 respondents (54.2%) were male and 60(45.8%) of them were female. All of the students (100%) of them were aged ranged between 20-24 years. Regarding the field of study of the respondents, 47(35.9%) were public health officer, 48(36.6%) were nursing and 36 (27.5) % were midwifery department. 67.2% were second year level while 32.8% were fourth year students. Though most of the respondents 45(34.4) of them were Amharic speakers, 24.4% were Afan Oromo speaker, and significant number 54(41.2%) were Tigrigna and other language speakers.

From these data, it can be concluded that number of male and female were nearly equally and all students in this college were in the same age group (20-24). The figures also indicated that the nursing department had the largest number of students compared to health officer and midwifery which are second and third respectively. The information from the table also illustrates that most of the students were Amharic speaker, but significant number (56.6%) more than half of them were non Amharic speaker.

4.1.2. English Language Skills needed in doing Activities in Academic Fields of Study

Part two of the questionnaire was used to elicit responses from health science students' concerning required knowledge (necessities) in four English language skills (reading, writing, speaking and listening) in their academic field of studies. Respondents were thus asked to rate the frequency of each type of English language skill required to engage in activities related to their field of study. The results were organized into four themes: Reading, writing, speaking, and listening skills.

4.1.2.1. Reading skills in academic field of study

Items Q1A-Q1H were designed to find out the types of reading activities commonly required in the health science field of study. As a result, health science students were asked how frequently they needed to engage in reading activities related to their studies. Table 4.2 below displays their responses.

Table 4.2. Health science students' experiences regarding reading activities frequently needed in their field of study.

NO.	Activities	Frequencies in %					mean	SD
		NN	RN	SN	ON	AN		
Q1A	Reading text books	.8	11.5	60.3	19.1	8.4	3.23	.79
Q1B	Reading course hand out	0	6.9	8.4	35.1	49.6	4.27	.886
Q1C	Reading instruction for Assignments	0	6.9	13	26	54.2	4.27	.9 37

Q1D	Reading study notes	0	6.1	18.3	35.1	40.5	4.10	.910
Q1E	Reading instruction for labs	2.3	4.6	18.3	30.5	44.3	4.10	1.007
Q1F	Reading test and exam questions	2.3	6.1	2.3	21.4	67.9	4.47	.97 1
Q1G	Reading newspaper and magazines	2.3	16.0	10.7	26.7	44.3	3.95	1.185
Q1H	Reading manual guide	1.5	11.5	15.3	35.9	35.9	3.93	1.054
Total								

Note: NN=Never Needed, RN= Rarely Needed, SN= Sometimes Needed, ON= Often Needed, AN= Always Needed

As shown in the table above, the majority of health science students appeared to believe that they frequently required reading test and exam questions, reading instruction for assignments, reading course handouts, and reading instruction for labs respectively. As the responses to item Q1F above indicates 67.9% always needed reading test and exam questions and 21.4% of them often needed it with the mean 4.47. The next reading they frequently needed in English were item Q1C 54.2% and 26% of them always needed and often needed consequently with the mean 4.27. In items Q1B and Q1E also frequently needed as 49.6% and 44.3% rated always needed with the mean 4.27 and 4.10 respectively.

As a result, it can be concluded that the types of reading that are always required in the health science field of study are reading test and exam questions, reading instruction for assignments, reading course handouts, and reading instruction for labs.

4.1.2.2. Writing skills in health science academic fields of study

In items Q1J- Q1Q of the table below, students were asked to rate the types of writings that health science students are always needed in their field of study. This could help the study identify the writing skills activities that are always required in the health science field of study.

Table 4.3: Health science students' experiences regarding English writing skills frequently needed in their fields of study.

No.	Activities	Frequencies in %					Mean	SD
		NN	RN	SN	ON	AN		
Q1J	writing notes from lecture notes	0	6.1	11.5	23.7	58.7	4.35	.911
Q1K	writing note from the course books	0	2.3	29.8	23.7	44.2	4.10	.910
Q1L	Writing project reports/term papers	0	3.8	10.7	28.2	57.3	4.39	.828
Q1M	Writing lab/field repots	0	15.3	16.8	22.9	45.0	3.95	1.113
Q1N	Writing summaries	4.6	8.4	32.1	31.3	23.6	3.61	1.078
Q1O	Writing personal letters	34.4	32.8	10.7	2.3	19.8	2.40	1.48
Q1P	writing business letters or job application letters	16	30.5	23.7	13	16.8	2.84	1.32
Q1Q	Writing paragraphs or essays on variety of issues	2.3	13.7	31.3	38.2	14.5	3.49	.98
Q1R	Writing research papers	0	8.4	12.2	25.2	54.2	4.25	.971

Note: NN=Never Needed, RN= Rarely Needed, SD= Sometimes Needed, ON= Often Needed, AN= Always Needed, SD= Standard Deviation

In the table above, respondents were asked to indicate the type of writing activities they always needed, often needed, sometimes needed, rarely needed, or never needed in English while doing activities in the health science field. Accordingly, nearly equal number of respondents 58.7% and 57.3% of them indicated that they always needed writing notes from lecture note and writing project reports/term papers while 23.7% and 28.2% of them often needed and no students rated under never needed. On item Q1R, 54.2% indicated that they always needed writing research paper and 25.2% indicated they often needed, 12.2% sometimes needed, 8.4% rarely needed and no student indicated never needed. writing lab or field reports was also rated by 45% always needed, 22.9% often needed, 16.8 sometimes needed, 15.3% rarely needed and no students rated

for never needed. The next always needed writing activities was writing the note from the course book which was rated by 44.2% always needed, 23.7% often needed, 29.8 sometimes needed, 2.3% rarely needed and no students rated for never needed. On the other hand, writing personal letters, writing business letters or job application and writing summaries were rarely or never needed.

Therefore, according to the information in this table, English writing skills were always needed in health science field to write notices from lecture, to write project reports/term paper, to write research paper, to write lab or field reports and to write note from the course book. However, writing personal letters, writing business letters or job application and writing summaries were not frequently needed.

4.1.2.3. Speaking skills in health science academic field of study

In the table below, students were asked to rate the English speaking activities that they needed in their learning of the health science field of study. This could help the researcher identify the speaking skills required for the health science field of study.

Table 4.4: Health science students’ experiences regarding English speaking skills frequently needed in their health science fields of study.

Activities	Frequencies in %					Mean	SD
	NN	RN	SN	ON	AN		
Q1T)Asking and answering question in class	0	7.6	45	28.2	19.1	3.59	.89
Q1U)Participating in class discussion	0	6.9	39.7	26.7	26.7	3.73	.94
Q1V)Giving a presentation	0	4.6	12.2	27.5	55.7	4.34	.87
Q1W)Introducing yourself and others in different situations	0	26.7	36.6	17.6	19.1	3.29	1.06
Q1X)Stating opinion or ideas in a variety of topics in the class	0	29	15.3	35.1	20.6	3.47	1.19
Q1Y)Making request to obtain different information	4.6	19.1	41.2	22.1	13	3.20	1.04
Q1Z)Making telephone call	64.1	6.1	9.9	15.3	4.6	1.90	1.33

Note: NN=Never Needed, RN= Rarely Needed, SD= Sometimes Needed, ON= Often Needed, AN= Always Needed, SD= standard deviations

Tables 3 above reveals that the English speaking skills' activities frequently needed in health science field. Accordingly, item Q1V indicates that giving presentation was the first speaking activities always needed in academic fields of study as 55.7% of the respondents rated always needed, 27.5% often needed, 12.2% sometimes needed, 4.6% rarely needed and no one replied never needed with the (mean= 4.34). The second activities always needed was Participating in Class discussion as responded by: 26.7% always needed, 26.7% often needed, 39.7% sometimes needed, 6.9% rarely needed and no one replied never needed with the (mean= 3.73). The next frequently needed skill was asking and answering questions in class rated by 19.1% always needed, 28.2% often needed, 45% sometimes needed, 7.6% rarely needed and no one replied never needed with the (mean= 3.59), whereas stating opinions or ideas in a variety of topics 20.6% always needed, 35.1 % often needed, 15.3% sometimes needed, 29% rarely needed and no one replied never needed with the (mean=3.47). Introducing oneself and others in different situations also followed by 19.1% always needed, 17.6% often needed, 36.7% sometimes needed, 26.7% rarely needed and no one replied never needed with the (mean=3.29), but making request to obtain different information is sometimes needed as rated 13% always needed, 22.1% often needed, 41.2% sometimes needed, 19.1% rarely needed and 4.6% replied never needed with the (mean= 3.20).

However, the data indicated that the respondents did not need making telephone call in English as the majority of the respondents 64.1% and 6.1% of them replied never needed and rarely needed with the (mean=1.35). Thus, based on these findings, it is possible to conclude that English speaking skills in the health science field were always needed to give presentations, participate in class discussions, ask and answer questions in class, and express opinions or ideas on a variety of topics, whereas introducing oneself and others in various situations and making requests for different information were sometimes needed, but making a phone call was never required.

4.1.2 4. Listening skills needed in health science academic fields of study

In items Q1Z2-Q Z5 of the table below, students were asked to rate the English listening activities that health science students needed in order to learn about their field of study. This could assist the researcher in identifying the listening skills activities that are essential for the health science field of study.

Table 4.5 Health science students’ experiences regarding English listening skills’ activities needed in their health science fields of study.

No.	Items	Frequencies in %					mean	SD
		NN	RN	SN	ON	AN		
Q1Z2	Listening to lecture	4.6	4.6	3.8	14.5	72.5	4.46	1.08
Q1Z3	Listening to class discussion	0	4.6	30.5	23.7	41.2	4.02	0.95
Q1Z4	Listening to radio, TV programs or films about health sciences	4.6	13	15.3	16	51.1	3.96	1.26
Q1Z5	Listening to instructions and explanations in labs	0	6.9	8.4	25.2	59.5	4.37	0.9

Note: NN=Never Needed, RN= Rarely Needed, SD= Sometimes Needed, ON= Often Needed, AN= Always Needed, SD= standard deviation

The table above reveals that the health science students’ experiences regarding the type of listening activities they needed in their learning of their fields of study. The finding indicated that the majority of students (87%) of them with the mean = 4.46 indicated that listening to lecture in English was frequently needed. The next most needed listening activity was listening to instructions and explanations in labs which were rated by 84.7% of the respondents with the mean = 4.37. Listening to radio, TV programs or films about health sciences was the third listening activity that learner frequently needed to listen in English as rated by 67.1 % of the respondent. The mean value of each item is (Mean > 3. 9) can also shows that all of the listening activities mentioned were frequently needed though their degree were different. Accordingly, depending on the degree of recurrence, it can be stated that listening to lectures, listening to lab instructions and explanations, listening to radio, TV programmes, or films about health sciences,

and listening to class discussions are all necessary listening activities always needed in English listening skills in the health science field of study.

4.1.3. Health science students’ English language needs in their future profession

Part three of the questionnaire was used to elicit responses regarding health science students’ required knowledge (necessities) in four English language skills (reading, writing, speaking and listening) needed in their future professional career. Thus, respondents were asked to rate how often they needed each English language skills to do activities in their future profession. The results are presented in four themes: reading skills, writing skills, speaking skills and listening skills.

In case one may ask how students know activities in their future professional career, health science students will make clinical practice in available hospital or clinical settings in their second year, third year and fourth year. Before designing the questionnaire, the researcher had obtained information that health science students make clinical practice on the courses like internal medicine, surgery, pediatrics and obstetrics / gynecology starting from second year. Therefore, the researchers believed that the students could provide reliable data on English language skills needed in their future profession.

4.1.3.1. Reading skills in health science students’ future profession

Items Q2A-Q2E were designed to identify the types of reading activities commonly needed in the health science field of study. As a result, health science students were asked to indicate how frequently they needed reading activities in their future careers. Table 4.6 displays their responses.

Table 4.6: Health science students’ experiences regarding English language reading skills needed in doing activities in their future profession.

No.	Activities	Frequencies in %					Total
		NN	RN	SN	ON	AN	
Q2A	Reading instructions(drug use leaflets, physician decision) in English	0	8.4	9.2	13.7	68.7	100.

Q2B	Reading medical books, articles, magazines, etc.	1.5	6.1	8.4	25.2	58.8	100
Q2C	Reading graphs, charts and tables	0	8.4	9.9	38.9	42.8	100
Q2D	Translating English medical or health information to their own language	3.8	9.2	16.8	27.5	42.7	100
Q2E	Reading prescribed drugs and all activities after the surgery are written	5.4	8.4	0	19.8	66.4	100

Note: NN=Never Needed, RN= Rarely Needed, SD= Sometimes Needed, ON= Often Needed, AN= Always Needed

The table above depicts the health science students' experiences with the English reading skills required to perform activities in their future careers. The results showed that the most needed English reading activities were reading instruction (drug use leaflets, Physician decision) according to item Q2A above, 68.7% of the students rated always needed, 13.7% rated as often needed, 9.2% rated sometimes needed and 8.4% rated rarely needed but no respondents rated never needed. The next always needed reading activities were reading prescribed drugs and all activities after the surgery are written as 66.4% of the respondents replied always needed and 19.8% of them replied often needed. The third important reading activities were reading medical books, articles, magazines, etc. as the majority of students (58.8%) of them replied always needed, 25.2% replied often needed, 8.4% replied sometimes needed and a few number of students 6.1% and 1.5% replied rarely needed and never needed respectively.

Based on the results of the table above, it can be concluded that all of the reading activities mentioned were required in students' future professions, but they can be ranked from most important to least important based on frequency of need. Accordingly, reading instruction (drug use leaflets, Physician decision), reading prescribed drugs and all activities after the surgery, reading medical books, articles, magazines, etc., translating English medical or health information to their own language and reading graphs, charts and tables are reading activities always needed in reading English language skills in hospitals or clinics from the most needed to least needed.

4.1.3.2. Writing skills in health science students' future profession

Items Q2G-Q2J was designed to identify the types of writing activities required in the health science field of study. As a result, health science students were asked to indicate how frequently they needed writing activities in their future careers. Table 4.7 displays their responses.

Table 4 7: Health science students' experiences regarding writing skills frequently needed in their future profession.

No.	Activities	Frequencies in %					
		NN	RN	SN	ON	AN	Total
Q2G	Writing referral letters in English	0	6.8	9.2	15.3	68.7	100
Q2H	Writing project proposal or research in English	0	2.3	20.6	13	64.1	100
Q2I	Writing reports(case reports, patient care and follow-up reports) in English	0	6.2	9.9	22.1	61.8	100
Q2J	Writing forms (prescriptions, vital signs, admission, discharge summaries, etc.)	1.5	4.6	10.7	16.8	66.4	100

Note: NN=Never Needed, RN= Rarely Needed, SD= Sometimes Needed, ON= Often Needed, AN= Always Needed

The table above depicts the writing activities that health science students required when performing professional activities in their future professions. Thus, they were asked to rate the frequency of the activities in English writings required in a hospital or clinic. Then, the results showed that all of them were required, as the majority of respondents (>61 percent) rated them as always needed in each item. To look at each individually, 68.7% said writing referral letters in English was always needed, while 15.3 percent said it was often necessary. Writing forms (prescriptions, vital signs, admission, discharge summaries, etc.) was the second needed writing activities as 66.4% and 16.8% of the respondents indicated always needed and often needed respectively. For writing project proposal or research in English 64.1% and 13% replied always needed and often needed respectively. Writing reports (case reports, patient care and follow-up

reports) was also the next needed writing activities in English since most of the respondents 61.8% and 22.1% indicated always needed and often needed respectively.

As a result, it can be concluded that English writing skills are always required in the health profession to write: referral letters, forms (prescriptions, vital signs, admission, discharge summaries, etc.), project proposals, or research and reports (case reports, patient care and follow-up reports).

4.1.3.3. Speaking skills in health science students' future profession

Items Q2L-Q2q was designed to determine the types of speaking activities that are frequently required in the health science field of study. As a result, health science students were asked to rate how frequently they needed speaking opportunities in their future careers. Their responses are presented in Table 4.8 below.

Table4. 8: Health science students' experiences regarding the types of speaking activities in English frequently needed in their future profession.

No.	Activities	Frequencies in %					Total
		NN	RN	SN	ON	AN	
Q2L	Attending medical meeting /conference	0	7.6	12.2	32.1	48.1	100
Q2M	Communicating with colleagues in English	2.3	15.2	44.3	26.7	11.5	100
Q2N	Communicating with patients in English	38.2	28.2	16	10.7	6.9	100
Q2O	Communicating with patients' care taker	41.1	32.1	13	2.3	11.5	100
Q2P	Speaking about medical related topics in English	0	6.9	28.2	31.3	33.6	100
Q2Q	making presentations at seminars and conferences	0	4.6	13	16	66.4	100

Note: NN=Never Needed, RN= Rarely Needed, SD= Sometimes Needed, ON= Often Needed, AN= Always Needed

The table above indicates that the respondents mainly needed speaking skills in English to make presentations at seminars and conferences as 66.4% of them replied they always needed, 16% of them said they often needed, 13% rated they sometimes needed and 4.6% respondents indicated they rarely needed, but no one replied on never needed. Attending medical meeting /conference was the next frequently needed speaking type in health profession as rated by 48.1% always needed, 32.1% often needed, but no one indicated never needed. Speaking about medical related topics in English was the third frequently needed speaking type in English as rated by 33.6 % of the respondents answered as always needed, 31.3 of them 28.2 % of them replied as sometimes needed, 6.9% said rarely needed and no one said never needed. Communicating with colleague in English is sometimes needed as it was rated by nearly half (44.3%) of the respondents. However, Communicating with patients in English and Communicating with patients' care taker are rarely or never needed as nearly equal number of respondents 38.2% and 41.1% of them replied never needed and 28.2 and 32.1% of the students said rarely needed respectively. These both speaking activities may not be used in hospitals or clinic as almost all of the patient or patient attendant were non-English speakers.

In general, based on the Results in this table, it is possible to conclude that the English speaking skills activities that are frequently used in the health profession are making presentations at seminars and conferences, attending medical meetings/conferences, speaking about medical-related topics, and communicating with colleagues in that order of importance.

4.1.3.4. Listening skills in health science students' future profession

Items Q2A-Q2E was created to determine the types of listening activities commonly required in the health science field of study. As a result, health science students were asked to indicate how frequently they needed listening activities in their future careers. Table 4.9 below displays their responses.

Table 4.9: Health science students’ experiences regarding the activities of listening skills in English frequently needed in their future professional career.

No.	Items	Frequencies					
		NN	RN	SN	ON	AN	Total
Q2S	Listening at meetings, seminars or conferences	0	6.1	9.2	9.9	74.8	100
Q2T	Listening to patients	42.7	15.3	6.1	6.1	29.8	100
Q2U	Listening to foreigners	11.5	31.3	22.9	16.8	17.6	100
Q2V	Listening to colleagues	4.6	9.9	47.3	22.1	16	100
Q2W	Listening to presentation	2.3	0	4.6	26.	66.2	100

The table above reveals that listening at meetings, seminars or conferences is always needed in health science students’ future profession as 74.8 % of the respondents replied always needed and 9.9% said often needed. It also shows that listening to presentation is the second regularly needed listening in English as 66.2% of the respondent replied always needed, 26% replied often needed. Listening to colleague is sometimes needed as nearly half of the respondents (47.7% of them) rated sometimes needed. 9.9 said rarely needed and 4.6 replied never needed. It also indicates that listening to patients was rarely or never needed as 15.3% said rarely needed and 42.7% replied never needed. Listening to foreigners in English was also rarely needed as 33.1 % said rarely needed, 11.5% said never needed, and 22.9% indicated sometimes needed.

In general, based on the data in the table, it is possible to conclude that listening at meetings, seminars, or conferences, as well as listening to presentations, are always required listening English skills, whereas listening to colleagues is sometimes required, but listening to patients is never or rarely necessary. Listening to patients and foreigners are the least important listening skills in English. These appear to indicate that the patients were primarily Ethiopians and non-English speakers.

4.1.4. Health science students' needs of English language learning preferences (Wants)

Part 4 of the questionnaire was designed to identify health science students' desires, so they were asked to rate what they wanted to learn or which English language they preferred. Their ratings are illustrated in Table 4.10.

Table 4.10: Health science Students' needs of their English language learning preferences (wants)

Descriptive Statistics			
	N	Mea n	Std. Deviation
Q3A. I like English for medical purposes than general English	131	3.92	1.207
Q3B. Technical vocabularies(Vocabulary taken from health science/ medical field is important for my academic study	131	4.53	.726
Q3C. I prefer if the activities in health science students' English language skills course materials is relevant to the health science field	131	4.30	.958
Q3D. I want to learn English to help me in my academic study	131	4.47	.747
Q3E. I want to learn English to be successful in my health profession	131	4.43	.795
Q3F. I want to learn English to enjoy English culture	131	2.42	1.347
Q3G. I want to learn English just to obtain my degree	131	2.67	.996
Q3H. I want to learn English because I enjoy learning it	131	3.04	1.179
Q3I. I like topics, activities and contents concerning health science to be included in English language skills courses	131	4.19	1.039
Q3J. I like health science vocabulary to be included in the English language skills courses	131	4.30	1.058
Q3K. I like general vocabulary to be included in the English language skills courses materials	131	3.41	.983
Valid N (listwise)	131		

The descriptive statistics in table above shows that students preference in learning English language. On the items of Q3B, Q3D, Q3E and Q3J in the table above within the mean value (M= 4.53, 4.47, 4.43, and 4.30) respectively indicate that the respondents were strongly agreed to these items. These revealed that they highly preferred technical vocabularies (Vocabulary taken from health science/ medical field), learning English to help them in their academic study, learning English to be successful in their health profession and wishing health science vocabulary to be included in the English language skills courses. The result also shows that they preferred topics, activities and contents concerning health science to be included in the English language skills courses materials (mean= 4.19), and they preferred English for medical purposes to general English (mean= 3.92). However, as items Q3H, Q3G, and Q3F in the above table indicate, Students did not decide whether they learned English for personal interest (M=3.04) and they learned to obtain their degree (M= 2.67), but they did not learn English to join English culture (M=2.42).

In general, the results in the table above indicate that health science students preferred learning English for their academic studies and future professional careers. Again, students' preference for learning English for their future professional careers appears to indicate that they were aware of the role of English language in health sector.

4.1.5. Students’ opinion on the relevance of the first year English language courses to their English language needs

Items in the following table were designed to identify students’ opinion regarding the relevance of the English language courses they took in their first year to their health science English language needs.

Table 4.11: Students’ opinion regarding the relevance of English language courses they took in their first year to their English language needs.

Descriptive Statistics			
	N	Mean	Std. Deviation
Q4A. The course contents had met my language needs to function satisfactorily in my academic studies	131	2.18	1.548

Q4B. The course can meet my language needs to function satisfactorily in my future career	131	2.31	1.626
Q4C. English classes are relevant to my needs	131	2.52	1.521
Q4D. The courses have helped me to know the contents/ topics of my major courses	131	2.21	1.409
Q4E. The courses helped me to master the kind of vocabulary of my fields of study	131	2.19	1.290
Q4F. The courses have helped me improve language skills that help me to do tasks/ activities in my major subject area courses	131	2.46	1.371
Q4G. The time assigned for the course is sufficient	131	2.11	1.198
Q4H. The contents of the courses were below my English language level	131	3.45	1.198
Q4I. The assessment procedures used in the course were appropriate to me	131	2.56	1.001
Q4J. The reading sections are purposeful for my field of study	131	2.37	1.505
Q4K. The courses show me that I am learning English to do what I want to do in my field of study	131	2.44	1.308
Valid N (listwise)	131		

The table above shows that almost all respondents disagreed with all of the items in the table except Q4H, which was undecided. In item Q4H above, the respondents indicated that they couldn't decide if the content of the course were below their English language level (M= 3.45, SD 1. 198). This can suggest that students were not sure whether the content of the courses were fit their current knowledge or below that. However, in all other responses, the table indicates that the course content did not meet their language needs to function in their academic studies (M= 2.18, SD 1.548), the course couldn't meet their English language needs to function satisfactorily in their future career (M=2.31 SD 1.626), English classes were not relevant to their needs (M=2.52 SD 1.521), and the course hadn't helped them to know the contents/ topics of their major courses (M=2.29).

The results of Q4E and Q4F in the above table also illustrates that the English language courses the students took in their first year neither helped to master vocabularies in their field of study nor to improve language skills that help them do tasks/ activities in their subject area course (M=2.19 and M= 2.46) respectively. The student also felt that the time assigned for the course was not sufficient (M=2.11). This in turn can indicate that students needed more extra time to learn English, and they have positive attitude in learning English. As Q4I indicates the assessment procedure used in the courses were not appropriate to them (M= 2.56). The reading sections in the courses were not purposeful for their field of studies (M= 2.37). This may show that the reading texts and reading activities were not related to their target needs. On the last item in the table above, respondents disagreed that the courses showed that they were learning English to do what they wanted in their field of study (M= 2.44). This demonstrates that the English courses they took as freshmen did not prepare them for what they went on to do in English in their field of study. Overall, the findings in the table above indicate that the English courses taken by health science students in their first year were not relevant to their English language needs.

4.2. Results of data obtained through test

As mentioned in the methodology section of this study, looking at where the learners are at present, which helps us identify their lacks, is an important part of need analysis (Nation and Macalister, 2010). They state that learners' general proficiency can indicate how they approach any language task; they also mention that students' scores on standardized proficiency tests such as the TOEFL or IELTS can be a valuable source of information.

As a result, an English language proficiency test was administered to students in order to assess their current level of English then. It centred on addressing the fourth research question. In other words, a test of English as a foreign language (TOEFL) was administered to gain an understanding of learners' current English language abilities. The data was then presented and analysed as follows.

4.2.1. Results of students' listening, structure and written expression and reading skills test

Table 4.12: The mean score of students' listening, structure and written expression and reading skills test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Listening scaled score	130	29	52	42.51	4.984
Structure scaled score	130	13	63	54.55	8.380
Reading scaled score	130	40	56	52.67	4.162
Valid N (listwise)	130				

The table 4.12 indicates that the average score of listening skills was 42.51 which is less than the standard score of ETS that is 53.1, while the average structure and written expression score was 54.55 and the average reading score is 52.67 which are both above average according to the average standard score of ETS which are 52.1 and 51.9 respectively. Thus, based on these findings, it is possible to conclude that the students had poor listening skills, indicating that they had difficulty understanding spoken English. On the other hand, good proficiency in structure and written expression could indicate that the students had no grammar problems and could identify grammatical errors, whereas reading score results could indicate the students' ability to read and answer English-language questions.

4.2.2. Results of students' total test score in%

Table4. 13: Students' computed scale score in %

Computed scaled score					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	273.33	3	2.3	2.3	2.3
	406.67	3	2.3	2.3	4.6
	430.00	3	2.3	2.3	6.9
	443.33	3	2.3	2.3	9.2
	450.00	3	2.3	2.3	11.5
	460.00	4	3.1	3.2	14.6
	463.33	3	2.3	2.3	16.9
	466.67	3	2.3	2.3	19.2

470.00	3	2.3	2.3	21.5
480.00	9	6.9	6.9	28.5
483.33	3	2.3	2.3	30.8
486.67	3	2.3	2.3	33.1
490.00	4	3.1	3.2	36.2
493.33	3	2.3	2.3	38.5
496.67	6	4.6	4.6	43.1
506.67	3	2.3	2.3	45.4
510.00	3	2.3	2.3	47.7
513.33	3	2.3	2.3	50.0
520.00	7	5.3	5.4	55.4
523.33	11	8.4	8.5	63.8
526.67	6	4.6	4.6	68.5
530.00	15	11.5	11.5	80.0
533.33	9	6.9	6.9	86.9
536.67	3	2.3	2.3	89.2
543.33	3	2.3	2.3	91.5
546.67	2	1.5	1.5	93.1
550.00	9	6.9	6.9	100.0
Total	130	99.2	100.0	
Missing System	1	.8		
Total	131	100.0		

The frequency table above can indicate that 56.8 % of the students got above 506.67 which is the passing marks for TOEFL PBT test according to ETS. This can indicate that the majority of students were proficient though significant number of students (43.2) them were not. The overall average score was lower because the listening skills test result was very low when compared to structure, written expression, and reading skills. This could imply that students were poor at listening to and understanding spoken English but excelled at grammatical structure, reading, and comprehending English-language tasks.

4.2.3: Results of students total score in writing test

Table 4.14: Students' average score in writing

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ID	131	1	131	66.00	37.961
Writing score	130	0	6	2.88	1.599
Valid N (listwise)	130				

As stated above, writing is separately scored in PBT TOEFL test and the average score expected to for every student is 3.5 -4.00 according to ETS. Accordingly, table 4.13 illustrates that the average score of students writing were 2.88 which is below the standard level (3.5-4.00) this can indicate that students were poor in writing proficiency.

4.2.4. Results of students' writing score in %

Table 4.15: Students' writing score in %

		Writing score			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	INR	0	0	0	0
	Off	12	9.2	9.2	9.2
	strong inability	13	9.9	10.0	19.2
	Inability	28	21.4	21.5	40.8
	Minimal ability	32	24.4	24.6	65.4
	Moderate ability	22	16.8	16.9	82.3
	Adequate ability	17	13.0	13.1	95.4
	Strong ability	6	4.6	4.6	100.0
	Total	130	99.2	100.0	
Missing	System	1	.8		
Total		131	100.0		

The table 4.15 above indicates the students writing score and interpretation depending on ETS. No student scored INR implying that all the students wrote the essay, but 9.2% of the student scored off. This means that 9.2% of the students did not write on the topic assigned. 10% and 21.5% of the students 'writing results show strong inability and inability. That means they scored 1 and 2 out of 6 respectively which is below the average. These indicate the students' inability to write an acceptable Essay: Their organization and development were very weak and or nonexistent; their essay lacked unity and cohesion. 24.6 % and 16.9% of the score indicates minimal ability and moderate ability (they scored 3 and 4 out of 6 respectively) which revealed some minimal ability in writing an acceptable essay, but involved serious weaknesses in organization and development. Significant sentence structure and vocabulary problems occurred, and there were frequent grammatical errors that sometimes make the writer's ideas difficult to comprehend. Very a few number of students (4.6% of them) indicates strong ability (scored 6 out of 6) which means the participant student had the ability to write a well-organized, well-developed, and logical essay.

In general, table 4.15 shows that the majority of the students (65.3 % of them) scored less than 3 out of 6, indicating students' less-than-minimal writing ability. According to ETS's TOEFL PBT test, these students were unable to write an acceptable essay; their organization and development were extremely weak or nonexistent and their writings lacked unity and cohesion.

Overall, this test result shows that students had good proficiency in structure and written expression, indicating that they were good at grammar and usage. The reading score results show that students could read and answer questions written in English. However, they had poor listening skills which indicates that the students had difficulty understanding spoken English. In addition, they had minimal and less ability in writing. According to ETS in TOEFL PBT test, these students had inability to write an acceptable Essay; their organization and development were very weak and or nonexistent, and their writing lacked unity and cohesion. In short, the students in the study performed well in terms of grammatical structure and reading skills, but they lacked listening and writing skills.

Table 4.16 : Results of students’ computed scale score among grade level

T-Test

Group Statistics					
	Grade level	N	Mean	Std. Deviation	Std. Error Mean
Computed scaled score	second year	88	505.7197	37.77310	4.02663
	4th year	42	485.1587	64.75387	9.99174

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Computed scaled score	Equal variances assumed	2.280	128	.024	20.56097	9.01948	2.71438	38.40755
	Equal variances not assumed	1.909	54.718	.062	20.56097	10.77258	-1.03027	42.15220

Table 4: 16 shows that the computed mean score for second-year students was 505.22, while the fourth-year score was 485.159. The significance level (P) is 0.024, so using the t-test for independent samples, it was found a significant difference between second year and fourth year of health science students ($t = 2.28, df = 128, p < 0.05$). This finding could imply that second-year students performed better than fourth-year students.

B. The qualitative data analyses and findings

4.3. Observation

The preceding quantitative data presented subjective information about health science students’ English language needs. It was aimed to identify students’ experiences of the English language activities needed in Each English language skills they used in both academic study and professional career and their views on if the English courses they took in their first year match these language needs. These data were obtained via the questionnaires. The test (TOEFL) test result also indicated students’ present situation at that time and lacks. Depending on the

information obtained from the quantitative data, the qualitative data were designed to obtain in-depth information regarding students English language needs. The information obtained from qualitative data was used in this study to help or elaborate the data obtained from quantitative results. The quantitative data presented a general picture of the research problems. Then, the qualitative data in this study, refined, extended and explained the general picture obtained through quantitative data in depth. Here, the results of the observations, the interviews and analysis of active profile of the patients in a hospital were presented separately.

This section presents the findings from health science major subject area classes and hospital ward observations. The first part of the observation involved observing the three departments' classes (public health officer, nursing, and midwifery). The data were used to present why and how English language is used in health science academic disciplines which were used to identify English language needed (necessities) in the health science field of study. The next section, hospital Observations, provides information about the English language skills that students will need in their future professional careers. As a result, the following section presents the analysis and findings from both observations.

4.3.1. Health science classrooms observations

Generally, 12 Classroom observations and six hospital ward teaching observations were conducted. The data were collected through audio recording and Field note. Each observed class was audio recorded from beginning to end of the lesson. It was then converted into textual data through transcription. Field notes were used to document unrecorded behaviors. The researcher jotted down any unrecorded behavior that he thought was relevant to the purpose of this study and treated it within audio-recorded data. As a result, this data set contains extracts that focus on the language used in health science classrooms and hospital wards, including language gaps.

4.3.1.1. Language used in health science classes

In class observed, instructors used more of Amharic language than English. There were medical terms, phrases, and abbreviations on their power point slides. During the observation in public health officer, nursing, and midwifery classes, no complete English sentence was heard. Three of the teachers utilized Amharic to explain most medical terms, phrases, or sentences in the power point presentation. It seemed odd that they added Amharic suffixes to English words. That is,

they utilized terms from both English and Amharic. For example, Inst.1 said, ‘decision achin’ to say our decision, care achin to say our care. –achin is Amharic word that means ours in English. The suffix –‘achin’ was added to mean ours. Again, they say painu to say the pain. Suffix ‘U’ was added to mean the English definite article the (see Appendix I).

Extract 1

...‘Lelaw’ fourth visit at 36 ‘new’. ‘Iziga’ wanegna’ screening for hypertension, antepartum hemorrhage ‘ina’ multiple gestation ‘new’. Multiple gestation focused ‘new’ based ‘new’? Focused ‘new ayidele’? The other is..., so these are the fourth visit at 36 weeks hypertensive, any antepartum hemorrhage...eee. Bleeding ‘kalat’ you have to check multiple gestations, presentation. ‘Lemindinew presentation lay focus yeminaregew sibali’ cephalic presentation kalihone, breach ‘minamin kehone adegna’ new to treat ‘ huleteгна’ decision nachin lemawek. ‘Gilts new ayidele?’Breach presentation ‘kehone iske mecheresha mindi new? Ces ‘new ayidele’? By the way 36 weeks lay preach presentation ayimetam bizu gize’ 37, 38 new lower yemiyaregew wayim extra manualization lay yemitayew..., so health promotion finally prepares birth plan. Silezih 38 gnawu yemecheresha week tebilu yitebekel. ‘gilts new ayidele? Gin be 37 ina 38 mehakil yimetal bilen memiker new. ‘silezih bohal term new ‘careachin tesktowal mallet new...

In this extract, the teacher was teaching antenatal care for health officer students. Though the instructor was using Amharic in explaining the lesson, he was not discussing highly technical medical words which has different from normal English words such as, hypertension, antepartum hemorrhage, multiple gestation, antenatal care, cephalic presentation, breach presentation, ces, term, post term. It was observed that most of the words were medical words and the instructor use code-mixing in presenting the lesson to the students. Note on the slides of his power point was all English words, and phrases (most of them were medical words), but rather than explaining and discussing the systems in Amharic, the instructors was not defining the medical words. Learners were passive listener throughout the period except few students who asked question for explanation. The next extract is the power point he was lecturing from (see appendix J)

Extract 2: sample of the slide of the lesson the instructor was delivering from the power point.

- *ANC Visits*

I. First visit at 16 weeks

.Major activities are;

- *Dx of Px and determination of the gestational age*
- *Risk ass't and determination of the medical status of the mother*

- *Health promotion by education on nutritional supplement, danger signs of Pregnancy e,t.c*
- *Care provision like malaria prophylaxis, preventing of PMTCT of HIV, iron supplement & immunization with tetanus toxoid.*
- *danger signs of Pregnancy: Like*
-vaginal bleeding - decrease fetal movement

-Blurring vision - sever headache

-Rupture of membrane

As it can be observed from the extract of the power point which the instructor was presenting, all most all of the lessons on the power point slides of his projector were medical words and all of them were words, phrases and abbreviations written in English. The instructor was using the words as they were, but use Amharic in explaining the process or procedure of the antenatal care. Even, he was not explaining what those technical word mean. He read the full words of the abbreviations, and students were quickly wrote the full words. This can indicate that the learners did not know the abbreviations. They were actively following the instructor to cope up with him. They quickly jotted down when the teacher read the full form of the words and when he explained some terms.

Therefore, the observation indicates that the health science lesson is full of medical words written in English, but the instructors were explaining and discussing in Amharic language rather than presenting in English language. Here, Amharic was used as cohesive device in connecting the phrases or words on the slide and explained them, but not giving direct meaning for the technical words. During the observation, the researcher felt three big questions in his mind. They were how these students did the exam as the examination was written in English, how they would work in their future professional career as every activities in hospital or health care would be documented in English and what about non Amharic speakers as there were students who did not know Amharic. Hence, the researcher believed that the language used in the health science classroom should get great consideration.

Extract 3: A sample of classroom observed in nursing department students class

The daily lesson was acute sinusitis

Inst 2: okay, we will see clinical diagnosis. To begin with symptoms, they have major symptoms and minor symptoms. Major symptoms are facial pain or pressure that is facial pain because of the miniature. The other is facial fullness or congestion. Pain ina congestion yileyayal ayidel? Pain sibal ...forward siyaregu

pain yisemachewal. Facial congestion yembalew degimo mulu fitachew weyim afachew ina afinchachew akebab yemola yimesilachewal yikebdegnal yiluwachewal. The other they will say upper nasal obstruction weyim afinchaye yemola yimesilegnal yiluwachewal. The other condition is purulent yehone nasal discharge yinorachewal teblo yitasebal. Other type hyposomia or anosmia the other definition hyposomia ina anosomia balefew ayiteal. Ihenin bedenbi yemitawukut yimesilegnal. Hyposomia decreased sense of smelling ina anosomia absence of sense of smelling eee... somia mean sense of smell. You have to able to characterize these condition. Chief complaint stitsifu characterize mareg alebachu hyposomia or anosmia bilachu or hyposomia or anosomia blachu describe bitaregu yeteshale yihanal mallet new...

As shown above, this instructor also used similar style with the instructor one with few differences. The second instructor who was observed in nursing department was a little bit different from the first instructor in that he began with speaking English to remind the students about what they had learned in the previous lesson and to introduce the lesson of the day while not a single complete English sentences was heard from the observed classroom of the first instructor observed in public health officer department students' classroom. Again, the second instructor also explained and discussed each lesson in Amharic. However, similar to the first instructor he also started using Amharic after a little progress.

As shown in the above, on the third sentence of the extract the instructor began using Amharic. For example, he said, "Pain ina congestion yileyayal ayidel?" When translated to English, it means that are the pain and congestion different? 'Ina' means and, but every student know the meaning of and. The researcher wondered why he used Amharic for simple familiar English words such as 'and'.

The medical English used from the above extract were diagnosis, symptoms, nasal obstruction, hyposomia, anosomia and chief complaint. As the researcher understood from the observed classroom the words diagnosis and investigation; and sign and symptoms are different in health science or medical terms but seem synonyms in normal English. Diagnosis is the result which the health professionals obtained by history taking and physical examination, whereas investigation is the result obtained from laboratory. Again, symptoms is the result obtained by asking the patient while sign is what the health professionals understood by looking the patient from the manifestation of the disease characteristics on the patient.

Extract4: Sample of the Power point the instructor was presenting

Sinusitis

- inflammation of the mucosal lining of the sinuses

Classification

- acute: <4 weeks
- subacute: 4 weeks to 3 months
- chronic: >3 months

Pathogenesis

- anything that blocks mucus from exiting the sinuses predisposes them to inflammation
- **Acute Sinusitis**

clinical diagnosis --at least 2 major symptoms or 1 major and 2 minor symptoms

– Major Symptoms:

- Facial pain/pressure
- Facial fullness/congestion
- Nasal obstruction
- Purulent/dicoloured nasal discharge

As mentioned above, almost all of the words or phrases on the power point were Medical English words, and they were presented, elaborated and discussed with Amharic language. As it can be observed from the extract of the power point, difficult to decide what grammar are used in health sciences classes as they are all word or phrases.

Extract 5: Sample of the observation 3 (Midwifery department Students Classroom)

Inst. 3: Cellulitis indet new bebizat yeminagegnew ipidimologically kalachiwu... most of them ... bacteria or HIV or precontact mindinew izihga minamin min honachewal wede case new mehed yalebachiw. History of the present illness most of the time then tayutalachu. Distinctively you will see the color. Colourun tayutalachew. Cellulitis izi ga bihon zuriyawu evacuated yihonal, yikelal. Keleloch bota min yihonal? Area yaawuun yikelal, so they would be redness. Don't expect what you do in hospital managementachu ayidele? ... Le 24 seat hospital instegnalen. Or most of the time 2 ken inastegnalen. Min insetachewalen? Ceftriaxone... then ceftriaxone setenachew le 2 ken IV kewesedu bohala 3gna ken discharge inaregachewalen. That is the management of cellulitis.

As observed from the extract above, this instructor also used Amharic to explain and discuss the lesson from his power point on the projector. For example, in the first sentences of the extract he began by saying “Cellulitis indet new bebizat yeminagegnew epidemiologically kalachiwu....?” When directly translated to English it means that if you ask how we often get cellulitis epidemiologically, Yeminagegnew directly mean get or obtain, but he was to say haw to

diagnosis? For diagnosis, there is no equivalent meaning in Amharic. As ‘memermer’ Amharic words was used for investigation and diagnosis which were far apart in medical terms as mentioned earlier. From this point, it can be concluded that there was a translation error while explaining in Amharic. He also added Amharic suffix to English word. For example, in the fourth sentence of the extract 5 above, it says, “Colerun tayutalachu?” To say will you see the color? Why they use Amharic suffix to the English base word it needs linguistic explanation and is beyond the objective of this study. It needs further investigation.

What was observed in this class also similar to the other in all aspects, but this instructor made students participate by asking questions. The next extract of the power point is to obtain information regarding what English languages were used in health science classroom and how the instructors were presenting them. Accordingly, from observed classrooms almost similar mainly words or phrases of English medical words existed, and instructors explained and discusses them with Amharic language.

Extract 6: Sample of the power point from which the instructor was giving lecture

- ***Cellulitis***
- *Involves more of the soft tissues, extending deeper into the dermis and subcutaneous tissue.*
- *Group A streptococci are by far the most common etiologic agents*
- *But occasionally GBSC in new born*
, Gm- in immunocompromised ,..

RX: rest ,po /Iv/im ceftriaxone 1 gm dially ,procaine /crystalline pencilline or cloxacillnie 500 mg iv qid

Accordingly, from the observed classrooms, an attempt was made to identify lexical items, sentences and grammatical structure used in the health science classes. It was observed that the participant instructors observed presented the lesson from power point. On their slide of the power point, all highly technical medical words and phrases were existed. They explained these words or phrases within Amharic language. For this reason, it was difficult to know the grammatical structure of the language from the power point, but from the transcriptions of the instructors’ lessons, it could be understood that simple sentences, compound sentences and complex sentences were used (See appendix L). Again, from clenched Amharic and English

presentation of the transcriptions, it appeared that simple present sentences were used in all subjects. For example, Inst.1 presented as “Lemindinew presentation lay focus yeminaregew sibili’ cephalic presentation kalihone, breach ‘minamin kehone adegna’ new to treat.” Inst. 2 presented, “Silezih major symptoms are facial pain, facial congestion, nasal obstruction, purulent nasal discharge, hyposmia or anosmia in a fever nachew.” Inst.3 also explained, “This is bacillary angomatosis. Min yimesilal isk sitayut? Min yimesilal? Most of the time HIV yeyazew sew lay yitayal most of the time. Exclusively present in HIV patients.” Hence, in all visited Classrooms simple present tense were used

Regarding professional communications, in the entire observed classroom, major subject area courses of health science consist of more of technical medical English words and abbreviations which might be understood by health professionals only. They often discuss the classification, pathogenesis, clinical diagnosis, location in the organ, common etiologic agent, investigation, diagnosis and treatments of a case topic within medical terms. Some words seem English words, but different meaning in health context. For example, in normal English words, diagnosis and investigation seem synonymous, but in health completely different. As it was observed, diagnosis is what the health professional found from history taking and physical examination while investigation is health problems found through laboratory, MRI or CT scan. Again, sign and symptom looks synonymous in English, but medically, sign is the indication of the disease dictated by health professional by observing the patient, but symptom is the indication of the disease observed by health professional by asking the patient. The researcher understood these technical words in a context of the classroom presentation, but he noticed that many of the students were not understood as they used it interchangeably during some responses they gave to their instructors’ questions.

Some of the technical health science related words observed from the public officer department were gestational age, multiple gestation, malaria prophylaxis, tetanus toxoid, antepartum hemorrhage, post-partum hemorrhage, cephalic presentation, breach presentation, cesarean section, pre-term, term, post term, para, multipara, gravida, multi gravida, laceration, peristalsis, hydrocephalus, puerperal sepsis, preterm birth, sciatic nerve, congenital malformation, Premature rupture of membrane, episiotomy, lactation, spontaneous abortion, stillbirth and Ectopic pregnancy. There were also many abbreviations used in this observed class. Some of them are

ANC, Dx, Rx, DM, HTN, RH, APH, ART, PMTCT, TT, STI, MTCT, CD4, IV, IUGR and LBW.

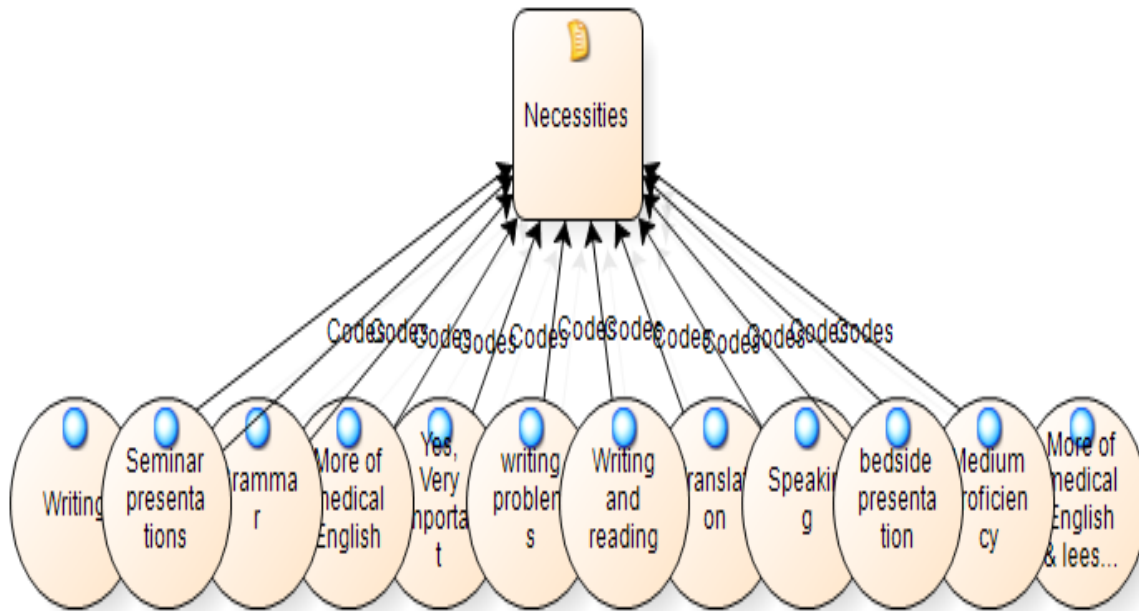
Some of the technical words or phrases from the Second classroom Observation were Acute, subacute, chronic, sign, symptoms, congestion, hyposmia/anosmia, halitosis, sinusitis, pathogenesis, etiology, corticosteroid, purulent nasal discharge, investigation and decongestant. There were also abbreviation like RV, Pneumonia, Influenza, M.catarrhalis, CT, Nasal FB, FESS, CES, in this observed classroom.

In the third department observed, there were also technical health related or medical words and abbreviations. Some of the technical health related words in third class observed were cellulitis, subcutaneous, fissuring, etiology, numbness, tingling, palpation and differential diagnosis. The abbreviations mostly used were Gm, RX, PO, IV, IM, QID, GBSC, VMT and AFB.

In general, in all observed classes, the instructors used mostly Amharic and rarely use English in presenting, explaining or discussing the lesson though the notes on power point of their projector were written in English mainly with technical health related English words. The researchers noticed that this might be due to either the instructors' shortage of English language skills to explain the lesson as intended, or the students' inability to understand English language. Here, the researcher decided to identify these problems from the interview. Therefore, it can be concluded that the health science departments (public health officer, nursing and midwifery) needed almost similar English. Depending on what were observed, the researcher felt that English language is as important as the major subject area courses of the health science because in all observed subject, the diseases, their pathophysiology, etiology, diagnosis, sign, symptoms, differential diagnosis, investigations, management and preventions were written in highly technical vocabularies of health related English. Thus, they could not be managed without necessary background knowledge of English. Did the students manage these highly technical vocabularies with general English which they had learned in high school and the supporting English language courses which they took as freshman? This should be a big question for everyone.

Furthermore, the models below summarizes why each English language skill is used in the health science field of study, based on the current study's qualitative findings. In semi-structured

interviews, the study's participants articulated the demands of each English language skill for health science students' academic English language requirements.



Model 1: English language needed in health science academic fields of studies

Inst 6 responded in general that students learn English because they learn all subject in English. He explains, “That is why students eee... campus students are specially learning all courses or all subjects in English. They do research project in English. Especially, in our settings, in clinical hospitals, we assess all things in English, so without knowing English, even, eee... to attend their degrees even... their subjects all difficult.” Similarly, T4 also stated that in their college, English is required for a variety of reasons. He says, “...in eee.... our college since it is the health science college, most of the terms or medical terms are in English and like most of the terms do not have eee... like a direct meaning in Amharic or in other language.” Inst3 gives the following reasons for learning English:

They need to eee...m have bedside presentation or seminar presentations. all the cases are in English, so they will eee... they need to read or they read all the book, the medical books in English and they need to understand English language that is why I am recognizing for our teachers or our students.

Dr.1 also stated that health science students must learn English skills because they are receiving instruction in English and English is the medium of instruction in their workplace: Taking the

patient's medical history physical examinations, investigations, diagnosis, and treatments, case reports all are written and documented in English. ET1 also added that health science students need English language for communication in order to collect, in order to diagnose and in order to do related activities.

The responses of the above respondents demonstrate that students require reading throughout their academic careers. They need to speak for professional communication purposes, such as seminar presentations and activity reports. They will need writing skills to write a research paper and to document all of their internship activities performed in hospital or health center.

4.3.2 Analysis of Hospital Ward observation

As mention in preceding section, the researcher observed the health science classroom lessons. Then, attempted to identify, the English language used in health science major subject area courses in order to investigate the English language used in academic settings. Then, observing internship students in hospital wards could aid the study in determining the English language required or the health-related language that health science students are expected to know in their future professional careers, as well as the gap that exists due to a lack of necessary English language background knowledge and skills in delivering health care systems in hospitals or health care.

Accordingly, the researcher observed internship students in the hospital wards where they were trained to apply the knowledge they had obtained from classroom lectures in their health educational progress to the diagnosis and treatment of the patients in their real professional careers. It was observed that the internship students were expected to do three things mainly. They were presenting bedside, round and seminar.

4.3.2.1. Analysis of medical ward Observation

As the researcher noticed from the observation, presenting bedside means one of the internship students team clerk the patient and present each and every steps of identifying the problem of the patient starting from taking demographic history of the patient, finding the problem and to the management of the problem or the disease and then presents to the clinical instructor. During presentation, the instructor asked each group member and presenter what they had performed.

In a round presentation, every member of the group had bed in the ward on which they cleric and present for supervisor. Here, each of the group members presented to the clinical supervisor showing, practically, performing diagnosis of the patient on his/her bed in front of his clinical instructor and his/her team. This did not need presenting each and every step of the process, but pertinent finding and showing it practically. The supervising doctor asked every group member as they were expected to know every activity done by each of the group members.

On presenting seminar, the topic were given by the clinical supervisor and, then, group presented by preparing the power point. Thus, the researcher observed and audio recorded all the activities. He did this wearing the gown just like internship students as it was not allowed to stay with them without gown. However, the researcher used bedside for the analysis of this study because it was inclusive.

The practice takes place in the hospital at the medical ward of the patient's bed. The students firstly clerked the patient. Clerk means take case history, conduct a physical examination, hypothesis the possible differential diagnoses and managements. However, the problem was the patients were Amharic or Afar-Af speaker, whereas each and every activity was documented in English. Hence, students were forced to interview the patients in Amharic, but they discussed and presented the case to their supervising doctor in English.

In all observed ward-teaching session, the researcher observed wearing the gown jest like students. He was audio recording with his mobile by the consent of both students and clinical instructor. The researcher used shadow observation. He observed them not only in teaching ward, but also when the students clerk the patient and prepare the bed side and when the instructor treat the patient from the beginning to the end. The researcher took field not for any unrecorded behavior.

Firstly, it was observed that the instructor intervened at any point and asked what, how, why and when questions to confirm whether the students exactly knew what they had done, how they had done, why they had done in their clerkship of the patient relating to the implementation of their clinical skills they had learned in health science field of study. This make different from the classroom session which was instructors dominant. Having carefully observed the students' progress during clerkship and the interaction with the clinical instructor while presenting

bedside, the researcher could attempt identifying the English language needed for health science students in their professional career. From the observed process of students' clerkship and presenting bedside, the register needed was clearly understood. The researcher also noticed the significance of having necessary knowledge of technical health related English words and English tenses particularly, past perfect, past, present perfect and simple present in their active and passive forms including all language skills.

It was discovered that the most difficult situation for internship students was interviewing the patient in Amharic and writing the history, chief complaint, history of present illness, vital signs, physical examination, pathophysiology, differential diagnosis, investigations, and case management in English to present to the clinical instructor. The researcher discovered that these activities required accurate knowledge of tenses, particularly past perfect, past, present perfect, and simple present in both active and passive forms, as well as relevant background knowledge of medical or health-related English.

Again, writing, reading, speaking, listening, interviewing and translating skills were very essential. However, as observed from the teaching session, students lack these skills (see the next extract and the appendix- M). Though difficult to distinguish whether it was lack of necessary skills of English language or lack of cognitive knowledge of the major subject area, it was observed that the learners clerked the patient on their bed in the medical ward with Amharic and rushed to the office to copy from the file of the patient from what health professionals wrote. They took the results written by doctors and tried to make as if they obtained from clerking the patient. They added some information from the Google or their previous subject area courses. Of course, it was plagiarism and the researcher believed that they did it mostly because lack of the necessary skills and knowledge of medical language and translating what they obtained in Amharic to English. For the patient who did not know Amharic it was other problems and needs other study. Another thing that surprised the researcher was the clinical instructor understood whether they did by themselves or not, by asking them to tell him the medical term they used including the location and pathology of the organs. It was observed that most of the students did not know even the meanings of the technical words they used. The following sample example and the transcribed text on the appendix-M) clearly indicate some of the situations.

Extract 7: Sample of medical ward teaching observation

*S1: History of the present illness (HPI): abdominal pain of five day duration
This is 31 age young men come to hospital. The patient was sick. He has the pain
over the right lower quadrant. ...Right lower quadrant ee..aa.....ee.. around right
left quadrant area.*

Dr.1 and students: laughed hahaha.....

*S1: He has anorexia, nausea, vomiting of three day duration otherwise no history of any
known chronic illness.*

S1: Physical examination...

*Dr.1: Before that your HPI is abdominal pain of five day duration. Can you
comment him on history? Have you got the patients idea? Have you get any
deferential based on his history?*

In the preceding sample, the student did not perform as expected, so the instructor halted him and asked the other group members to comment. Students were supposed to describe their investigations and discoveries in medical language, noting the specific position of the organ (abdomen). They also have to explain examination processes and treatments using proper language. However, it was noted that the presentation was poor. The presenter and a team member failed to use acceptable terminology when carrying out investigation processes.

As the researcher noticed from the lecture, from right history of the present illness (HPI), it was expected that the problem of the patient was almost guessed. Each information was asked from the beginning to the end. Based on his prediction the doctor asked to rule out and mention it in a positive or negative statement. Especially, negative statement was used to rule out what you expected and you would ask the patient the symptom of the disease you expected, and if not you would write in negative statement. For example, as the students explained above, there was no history of smoking. This means that he suspected the cause of disease was lung cancer and if the person was not smoking he had to think other cause.

The student wrote separately in isolated sentences, whereas HPI is written in essay form in chronological order of the case, beginning with the patient's health before seeking treatment to the present. However, the students didn't do that this was why the clinical instructor intervened and asked if other group members understood the patient. Here, it was difficult to determine whether the student presented in this manner due to a lack of clinical knowledge or English language skills. However, it was clear that English language and skills such as interviewing, writing paragraphs or essays, tenses, and medical terminology were critical for writing HPI. The following are a sample conversation between internship students and clinical instructor.

Extract 8

S2: The HPI doesn't lead me to say anything.

Dr.1: So, what specific comment you have to.....

S2: the chief complaint, the negatives and the positive doesn't mentioned very well

Dr.1: Okay, Other.... You.

S4: He didn't detail elaborate.

Dr.1: I am asking you, what are that remaining? What do you want to incorporate? What is left from history? What you give him insight or comment? Your additional...

S4: Okay, for example, when he say chief complaint, we have elaborated chief complaint.....

*Dr.1: chief complaint is the topic iii...? The main topic, so the main fault on chief complaint is abdominal pain. yaa .. Eee..? **Health professional do not say abdominal pain.** Abdomen has four quadrant. Which quadrant of the abdomen is?*

S1: eee... Right... Right left quadrant.

Dr.1: Right left quadrant. Right....show me.

S1: Left quadrant...right left quadrant...eee...

*Dr.1: eee....there is no right left quadrant? Right lower quadrant or RLQ. **You haven't clerked the patient.***

As shown above, the clinical instructor realized that the student did not clerk the patient because the student could not tell the location of the pain. Again the doctor warned them that health professional did not say abdominal pain rather right upper quadrant pain, right lower quadrant pain or left upper/lower quadrant pain. From this it can be suggested that the students lack vocabularies of health terminology including the location of the organ and the English language used to write and explain what they interviewed the patient with Amharic using health terminology. The instructor also explained the HPI and asked to present the physical diagnosis as follow.

Extract 9

Dr.1: yes, the HPI narrows us to think of specific differentials the positive and negative statements ayidele? That should be elaborated. Abdominal pain of right lower quadrant should be so many differentials ayidel? To identify among the differentials, to make some of it top, the negative and the positive statement lead us. You...

*S6: On the biographic history **he has to write in paragraph form.** Isolated...*

S1: vital sign ... Blood pressure=120/67 milimetry mercury, pulse rate=110 ee...m, temperature 36.2c0...eee..HEENT I think normaleee... H EENT normal

*Dr.1: Normal? **What is normal mean?***

S1: normal mallet HEENT is normal

*Dr.1: **wha did you see on HEENT of the patient? Min Aye? Patientu minun new yayew? Tsegurun new?***

S1: uummalete... um... head lay yeminayewu neger...eee...

From the above example also it can easily understood the students did not know appropriate medical vocabularies needed. Simply he said HEENT is normal, but as the instructor asked him to elaborate what normal HEENT mean, the student did not know what he had done. Even, the researcher noticed that he did not understand the abbreviation **HEENT** that was to mean head, ear eye, nose and trachea. Inspecting these body parts, he was expected to explain with medical terms but not.

Extract 10: presenting physical examination continued

Dr.1: so when you do abdominal physical examination, what are the components of abdominal examination?

S2: Inspection, auscultation, percussion and palpation... inspection ...eee...large.

Dr.1: u..hu. Inspection any previous surgery kale, the other is?

S4: Prominent vein.

Dr.1: Prominent vain is more of medical...movement with respiration.... That is moving... why it is not moving with respiration because of peritonitis. When inspired and expired the abdominal organs could touch the peritoneum ayidel, so it elicit pain, so he will be rigid. He will not inspired on the abdomen. He will have shallow breathing instead of ...We have.... Mejemeriya distention ale wey, descaphoid, flat mayet alebachu abdomen stended new, ... weyis flat weys scaphoid. Present with abdominal distention, intestinal obstruction become distention aydele?

Adegna ihe new. Huletegna movement with expiration, if it is moving with expiration or not. The other?

S5: Scar

Dr.1: any surgical scar. Abdomen yetu gar new yeminiserawu physical examination sinsera

S2: diaphragm

Dr.1: Diaphragm wust new ayidele sinsera? Ke midterm menesat alebin. The other any swelling in the iguana area, epigastric, and hernia sayitoch mayet alebachu. Inezihin inspection lay inayalen. Next, ke inspection ketilo

S6: palpation

Dr.1: Palpation! Palpation new yemiketlew?

The above extract indicates that the medical term called physical examination is other means of identifying and describing the problems next to History of present illness and vital sign. As indicated above, from the instructors' comments, it could be understood that the students did physical examination of the patient without recognizing the medical words meaning and interpretations. For example, inspection medically means looking the external body of the patient within the naked eye to observe the previous scar, prominent nerves and etc.; percussion medical means tapping with finger to determine consolidation, air or liquid filled for lungs and organomegaly for the abdomen, and palpation means by feeling the palm of the hands identifying tenderness and organomegaly. Each of these physical examination points us certain clues of the internal diseased organ. These are some of medical terms obtained from the observation of teaching wards. However, most of the students observed were not familiarized with the implications and interpretation of what the medical terms such as in inspection, auscultation, palpation and percussion convey on the location of diseased organ of the patient.

Therefore, it can be concluded that these are some of the highly technical language areas health science students were expected to cover at their university education to do better in their future professional career. Without learning these technical language by language teachers how the health professionals get input of these highly technical medical words so as to perform their work properly? They may acquire in longtime through experience, but they may cause many problems or may be medical errors until they master through experiences.

4.3.2.2. Analysis of Gynecology ward observations

The researcher observed similar participant students, but different doctor, subject and ward. Still students did not identify the medical words they have used in the previous medical ward. The previous was medical ward and the subject was surgery, but this was GYN ward and the subject was Gynecology. It was observed that student made similar errors in using and interpreting the technical language used from diagnosis to treatment including the steps of presenting the report. Here, GYN ward also students trained to implement what they had learned in their health educational progress to the diagnosis and treatment of the pregnancy or birth related mothers in

their real professional careers. The practice takes place in the hospital ward at the GYN bed side of the client. The students firstly clerked the patient. Here, also clerk means take case history, conduct a physical examination, hypothesis the possible diagnoses and managements. However, the problem was the patients were Amharic, or Afaraf speaker, whereas the presentation was in English. Hence, students were forced to interview the patients in Amharic, but they discussed and presented the case to their supervising doctor in English.

Extract 11: Sample Gynecology medical ward teaching observation

S2 presented the bedside session. He presented the demographic history, chief complaint and HPI.

S2:chief complaint is preeclampsia

Dr.2: First of all what do you mean by chief complaint?

S2: ee...e....m....

Dr.2: this is your patient. 'Ahun akerebik ayidel', so what is chief complaint?

S2: Eee...eee Preeclampsia.

Dr.2: HAHAhhhh....Atasikegn. him... chief complaint means the reason why the patient sick care or came to the hospital.

Okay, why did you say pre-eclampsia for this lady?

S2: eee 'malet'

Dr.2: Okay what is your diagnosis?

S2: Preeclampsia

Dr1: when did you diagnosis: how do you diagnosis preeclampsia?

S2: Blood pressure.

Dr.2: Okay raise BP? ...

The above sample example demonstrates that the students still did not understand what the chief complaint meant despite having used it for about a month in the medical ward. Nonetheless, the instructor inquired about the meaning of chief complaint and provided a brief definition, "chief complaint means the reason why the patient sick care or came to the hospital." In almost all their discourse, the instructor spend much time explaining the meaning of technical language rather than improving their cognitive knowledge of health in treating patient. Besides, in the example above, the instructor inquired about the student's diagnosis of preeclampsia. The students then replied "blood pressure." The instructor guided the students by saying, "okay, rise BP.) Here, the instructor added the verb 'Rise' while the student replied the phrase blood pressure without indicating the action. This may indicate gaps in the use of action verbs to indicate activities. The student was expected to tell the instructor in response to the question of how to diagnosis

preeclampsia as the doctors feedback below. After asking each group member, the instructor explained the diagnosis of preeclampsia as follows:

Dr.2: yes, hypertension plus 20 weeks of gestation, and you can defined hypertension okay at least the systolic 140 and the diastolic 90 and above okay plus protein urea after 20 weeks of gestation and hypertension should be measured at least to measurements okay, hhh...iph..haaa.. at least in four hrs. apart okay. This is diagnostic criteria. And the other exceptions for this diagnosis criteria if you have blood measurement of severe range that means the systolic is 160 and the diastolic is 110 and above okay plus sever features. Sever features 'yalnachew degimo mindi new' cerebral and visual symptom with sever head ache which doesn't respond with normal routine an alje six like paracetamol and diclo asprin 'lihon yichilal' okay? And

Therefore, Students were expected narrating preeclampsia depending on the diagnosis from the time of pregnancy in weeks, blood pressure and other sign and symptoms of pregnancy. However, from the above it can be concluded that the students had the problems of explaining cases using verb tenses, describing examination techniques by using medical language terminology and describing time events using adverbs of frequencies. Hence, from the observation result the researcher recognized that the health science students highly need necessary English language skills and knowledge like translation skills, reporting skills, explaining situations chronologically with verbs and adverb of time, adverb of frequencies and adjectives describing the patient, the disease, the location and pathology of internal organs.

4.4. Analysis and findings of the data collected through interview

In this study, the interview was also another qualitative instrument used for collecting data to address the research objectives. Besides, it was also used in confirming and elaborating data collected by observation, document analysis, questionnaire and test. The type of interview used was semi structured interview.

4.4.1. Analysis of Students' Interview

Semi-structured interviews were conducted with students to obtain detail information regarding the English language needed for the target situation, the English language they wished to learn,

their difficulties in learning their academic field of studies because of lack of necessary English background and the importance of the English language skills' course materials in their target situation. The results were organized into four themes: students' experiences on their English language skills needed in their academic field of studies, health science students' preferences of learning English (wants), Their difficulties in learning their major area courses because of lack necessary English language knowledge and skills and students' beliefs on the first year English language skills courses in addressing their academic and professional needs. They were mainly targeted at answering the first, third, fourth, and sixth research questions.

4.4.1.1. Students' experiences on their English language skills needed in their academic field of studies

The respondents expressed that they need English for their academic purpose. They need to be good listener and good speaker, but they indicated that they didn't get the way they want to be given. For example, S1 said:

Okay expectation regarding the thing you have mentioned, my expectation was, I was thinking that I would have become a good listener as well as a good speaker, but in my opinion I didn't get with anything...(S1)

As health science student English course doesn't help as because the normal English word and the medical English word they are literally different...eeeeee....r...(S2)

From these responses one can understand that the students were not happy with the English they had learned because it was not related to their field. S2 stated that normal English Words and medical English words were different. As she stated she needed to learn medical English.

4.4.1.2. Health science students' preferences of learning English (Wants)

The interview can indicates that the student participants want to learn many things from English language. They want to know pronunciation and they want to make good conversation. Even some of the interviewee blamed their instructor as he was wasting their time with teaching them unnecessary language. For instance, S1 Said, "we want to listen a good conversation, interesting ways of teaching, but he didn't use. It was tracking unnecessary English that was not understandable by students." the student considered it was the problem of the instructors for giving unnecessary language, but it was the course materials which was prepared by ministry of

education. The other respondent replied that he wanted speaking English with other and pronunciation. S3 states as:

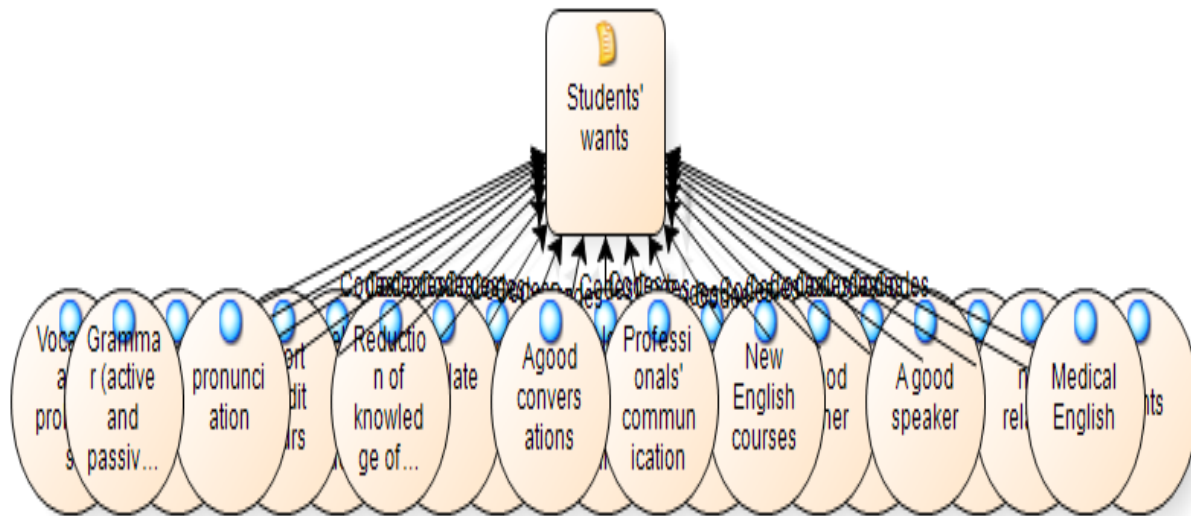
I expected from English language to speak English language with others. I expect from English course so many things. I expect to know pronunciation English. If I know pronunciation, I can speak and write with others that is my expectation.

Communicative English instructors also indicated that the language the students want to learn and what we taught were parallel. For instance, ET1 said, “Students need this one, for example, X activities or Y activities, but we are teaching Z or other. So if we teach what students expected of us that is very interesting.” Again the instructors added that the learners were not interested to the course.

the students are not interested with the course eee...m I think they under estimate the course as it was not what they are expecting, what they are thinking to learn specially what they expect in their future professional career as well as to improve the other academic eee...ee... achievements. They do have their own expectation and need, so this general course doesn't much within their expectation as a result it may be the problems. Students under estimate this particular course as a result such problem might become from the course they are taking and what they are expecting in the course (ET1).

To tell you the fact they have no interest why because they think that it only benefit them for their grades e...e....and they think that they had mastered it at high school. Especially, natural science student, particularly, engineering and computer science and all health related students are really good at English and they think that they have mastered at their high school (ET2).

Furthermore, the following models summarize health science students' English language learning preferences (wants) based on the qualitative findings of the current study.



Model 2: Health science students' English language learning preferences

Respondents stated that they want to learn English to help them with their academic studies. They prefer to learn more of medical English and less general English, pronunciation, professional communications, grammar (active and passive). They want to be good English speakers and writers in both their academic and professional lives. For example, S3 said, “I expect to know pronunciation of all medical English. If I know pronunciation, I can speak and write with others that is my expectation.” S2 also emphasizes as, "Okay, the current communicative English course must contain more medical words eee...r because if it includes medical words, it make easy for the students understand their subject.”

4.4.1.3. Students’ difficulties in learning their major area courses because of lack of necessary medical English language background (lacks)

Here, the interview questions were aimed to obtain information regarding problems existed in learning major subject area courses because of lack of necessary medical English Language background. Respondents replied general problem. They really didn’t indicate the language problem they encounter during presentation of seminar, bedside or round the researcher obtained in his observation. The general difficulties they raised were difficult to do or present assignment and to communicate with teachers. S2 said:

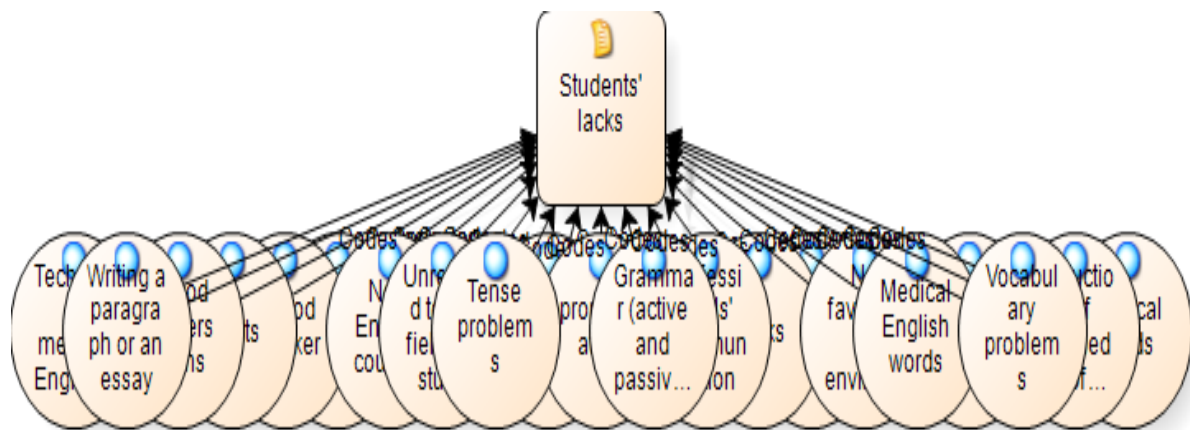
There is a difficulty to present or do assignment and to communicate with teachers because medical English words literally different from normal English

words. Uuu...m so it has a difficulty. There are so many problems that expose me to speak English in academic wise. There is pronunciation problems which make me stressful. When you are stressful, you get problems to learn academic wise.

Remarkably, S3 admitted that he had no problems of English before joining the college, but he faced the problems of English after joining to college. He reasoned out that it was because their instructors did not teach in English and used Amharic, as a result students were also did not use English. The researcher also share some of his ideas, because health science student were good at English during taking fresh man course, but as the researcher observed during bedside, or round presentation, they were poor in English. From this interview it can be noted that the students forgot their English language skills because their instructors are using Amharic in explaining the subject area. Learners were not more exposed to English. From the findings of the test result also 2nd year students out performed 4th year students. Similarly, the following is information obtained from S3.

Before I join to the college, there was no problems in speaking English, but after I join the college, I faced problems of English because you can't use English with others or with your friends why because it is specified. The lectures are cannot teach in English why because they are exposed or intervene in speaking in Amharic this may affect you to speak English.

Furthermore, the following models summarize health science students' English language gaps (Lacks) based on the qualitative findings of the current study.



Model 3: Students English language lacks

This model can indicate that students' major English language gaps they had were writing a paragraph or an essay, using active and passive of tenses and medical English terms.

4.3.1.4. Students' beliefs on the first year English language skills courses in addressing their academic and professional needs

This section was aimed to obtain information regarding relevance of first year or current English language courses in use for all health science students. Almost all respondents replied that the fresh man English language courses they took were not relevant to their field of study, and it didn't directly help them in their educational progress. Some believed that even learning that course may help them indirectly as English language was very important in their field of study (see the next extract).

SI: Uuuu....m I don't know, I don't think it is a kind of English prepared exclusively thinking for medical students. They have been giving this courses as a general English grammar rule for students, so I would not call it specifically assist medical students.

R: But do you like if the courses were related to health science students?

SI: Yaa, definitely

R: Did you think that the course meet your English language needs?

SI: Definitely not.

R: Why?

SI: Because like I have mentioned earlier, even the credit hours has been very short and I think we didn't use properly.

Communicative English course instructors also confirmed what student respondents forwarded. For example, ET1 replied

Both, communication one and communication two were generally prepared. So, communication two doesn't benefit particular department or particular student. It is very general. As a result, eee....the activities, tasks whatever, activities in that material doesn't particularly related to the health science students' professional careers (ET1).

I myself don't like the current course materials. I prefer the old course material rather, because you see in communicative course material module I, students had learned self-introduction and introducing others and bila bila ... that is communication for me. Then, the second course materials is Basic writing skills course. It had taught students from word to an essay...ee... really I liked it, but the current ones...uuu....m I don't know... garbage ... um that is all (ET2)

Therefore, these findings can indicate that the English language courses they took in the first year did not directly help them in their health educational progress and irrelevant to English language used in their field of study. Therefore, it can be concluded that the courses did not match the English language of health science students.

4.4.2. Analysis and findings of data collected from major subject area course instructors' interview

Major Subject area course instructors were interviewed aiming that they can provide information regarding the English language needed for their students: Students' English language lack or English language problems students often make while doing activities or tasks in their field of studies and the overall benefit of English language for health science students. The researcher believes that major subject area course instructor can provide necessary data because they had passed through health educational journey as student and they can notice many things regarding the English language needed for the target situation from their teaching experiences as instructor. The results were presented in three themes: reasons for using English language in academic studies, subject area course instructors' experiences on their students English language lacks and what health science students do with English language. They addressed the first, fourth, and sixth research questions, respectively.

4.4.2.1. Reasons for using English language in academic studies

The first question the sampled major subject area course instructors were asked if English language was important to their students in their academic studies and professional careers and then to reason out their response. The objective of the interview question was to obtain data from subject area instructors' experiences regarding English language needs for their students' target situation and then to answer what English language needed in light of answering research question one of this study. Accordingly, the sampled instructor replied that it was very important because English is the medium of instruction for all courses. For example, he said, "very important as it is medium of instruction for all the courses. I think Very impotent". They were also asked what kind of English they perceive their students need to pursue their academic study

and professional careers. They replied both general English and medical English, but more of medical English. For example, respondents replied as follow (See appendix-R):

In my opinion both are important for them. The general one and the medical one. The general one should be important for students to understand other supportive courses for these medical courses and the medical part of English help students to understand medical terms. I prefer the combination of the general as well as the medical one, but more of medical one as English language is everything for health students (Inst 1).

...most of the courses are just provided by English, and all the courses are provided, and all the references we have also all ...eee... the text they read, all the peppers they read and all the books which are available in the library are in English and English is must and crucial for our student (Inst 3).

English is important since most of the eee... material.. the teaching material and learning materials are prepared in English plus the science came from foreigner or western. Eee... most of the terms or medical terms are in English and like most of the terms do not have eee... like a direct meaning in Amharic or in other language, so teaching learning eee... is in English and so it is vey important...(Inst 4)

4.4.2.2. Subject area course instructors' experiences on their students English language lacks

The next question was to obtain information regarding students lack or the English language gaps students had while doing activities in their field of studies and often observed by major subject area courses. They replied that their students had speaking, writing, translation and grammar problems. For instance, the sampled instructors responded as:

They have both grammar as well as speaking as well as most of the students can feel, can listen and can understand English, but they have problems when they speak, translate and write, so the grammar, speaking and writing part have deficit. These are the problems as well (Inst 1.)

Since we do not teach them in English here eee...m language here, most of the students did not have good English background that is why they do not hear and speak English. Not only hearing and speaking, they also have writing problems. Their writing skills in English is not so much satisfied (Inst 4).

They may have the concepts, but due to the grammar errors, I don't understand what they want to say so that I am going to understand them wrongly and sometimes I wish if I asked them what they want to say. Due to the grammar error problem, I don't even understand what they want to say. Hence, there is a problem in such things, and challenging for us to evaluate (Inst 5).

They were also asked to specify the kind of problems they observed. Then, they replied that in all aspects (see appendix R). For example, Inst 1 said, "In every aspects, there are words they do

not write in proper way. They do not use it in proper grammatical way, so they have such problems at all.” Hence, these responses can indicate that there were wide English language gaps that students made in doing tasks and activities in their major subject area courses and their instructors recognized as language gaps. On the other hand, the communicative English course instructor stated that the students had no language problems except listening skills. For example ET2 said:

The student had no problems on doing language skills, but listening skills is a little bit challenging for them. Eem...I can't say they had problems of lack of skills, but they lack interest in doing the activities eee...m according to the instruction of activities in the course.

This discrepancy between the ELT teacher and the subject area instructor about students' English language gaps might imply that the students had no difficulty with general English but had problems with medical English.

The other important point that the researcher asked probing question depending on the result of observation was why subject area instructors mostly teach in Amharic even clenching Amharic suffix to English words. They mainly gave two reasons. The first was the students' inability to understand English medical terms and they use Amharic so that they could easily understand the subject. They clearly indicated that students had English language deficit to capture medical terms. The next was they admitted that they themselves also had the problems of English language to explain the subject all by English. They indicated that they have come to the clenching of English and Amharic even at word level though experience they had got to make the subject clear for students. They also indicated that every health science or medical teacher use that system (“Using Amharic in the way of speaking English”) because of their educational progress. They also had come in similar way with the current system the students are learning. Inst 1 responded as follows:

*As I...explain in previous part, eee... as well...eee the instructor's eeee...we all instructors we have some problems of English and are **speaking Amharic in the way of speaking English** as well as is fluency as well we are coming to this system. We are in the system of what students are learning or the way students are learning English. We also come in the way of students are learning English now. We are also part of these. Education part, so the instructors as well as the students have deficit in that of speaking as well as writing English as well as listening that of English, so I think it is mandatory since our even if it is*

instruction is English most of the students cannot easily capture medical terms as well as that of the English easily. So, the instructors should support students by interpreting in Amharic for easily understanding. That is all (Inst 1).

In the above extract the respondent indicated that they came in the system of what students were learning English then. He wanted to say the student learning general English in their high school and supportive course in university. No other system of learning English language related to health or medical language in their system of education. Therefore, from these points it can be concluded that designing medical English or English for health science students is mandatory.

They also admitted using Amharic had influences on non-Amharic mother tongue students as they could not understand both the English version and the Amharic one. There are also foreigners, but they can understand the English part. The respondent stated as:

students in some college as well as in this college, there are non-Amharic speakers even some foreigners, For foreigners it will be easy they managed it by understanding the English part, but for those non Amharic mother tongues of Ethiopians, it is not easily understandable, so the instructor should support them by using English as well as translating (inst 1, Inst3 and inst 6).

4.4.2.3. What health science students do with English Language?

They were also asked to provide information regarding the overall benefit of English language for health science students. They replied that it was mandatory to understand medical courses and they suggested if curriculum which may teach more of medical term English was prepared.

The respondents replied as:

Eeee...it supports for students as well as for everyone to understand the subject matter easily, but if everyone is excellent speaker of English I think is support for the student not only the student, not only supportive, it is mandatory. Eee., As we said it is medium of instruction for every courses eeee is English . If curriculum is prepared in that way, I think it supports the students to easily understand the subject matter (Inst 1).

Most of those who have good English understanding, may already do some assignment while others copy and paste from internet. They search and Paraphrase, so those who have good understanding, they know how to participate, they know how to search the assignments, and they know how to search books. So, English is good input for health science students (Inst 2).

...learning all courses or all subjects in English. They do literatures eee.... Students' research project in English. Especially, in our settings, in clinical hospitals, we assess all things in English, so without knowing English, even,

eee... to attend their degrees even... their subjects all difficult, So English language is mandatory (Inst6).

Lastly, depending on the interview question asked to suggest on the English language for their students they wished if curriculum of more of medical English terms and some general English was prepared and delivered to health science student by language experts. For example, Inst 1 and Inst 3 replied:

eee... both. If the curriculum prepared for both and more of medical terms English is delivered for students by language experts or person who have English specialty delivering in the part of linguistic I think there are English medical terms in that part of linguistic I think those instructors delivered those courses, it will easy for students to understand the subsequent medical courses for student. Any way I recommend both.

In general, from the responses of the subject area course instructors, the research question of English language necessities and English language lacks of the health science students were obtained.

4.4.3. Health professionals' interview

Health professionals were chosen in the belief that they could provide the required information regarding the English language needed for health science students' future professional career (future needs) and problems they often face because of lack of necessary English language background from day to day professional activities they encountered. They were mainly selected to obtain necessary data regarding the English language needs for health science students in their future professional activities. The results were arranged into five themes: health professionals' reasons for using English language in their professional career, the frequency of using the English language in health professional activities, the influence of lack of English language in the success of health care provision, what health practitioners do with English, the frequency of English language skills used in their professional activities and the relevance of first year English language courses to students' future profession. They focused on addressing the second, fourth, and sixth research questions.

4.4.3.1. Health professionals' reasons for using English language in their professional career

The first question of the interviews was identifying their experiences of the importance of English in their day to day professional activities.

All of them replied yes. For instance, HP1 answered, “Definitely, yes.” The next question was asked to explain why they said very important. This question for clarification was asked to obtain data in answering research question one and two. That was to identify health science students’ future needs of English language. Then they responded as follows:

Yes, because all the things we do in hospital or the information we exchange in medical work place is in English. Medical terms and all medical words are in English too, so it is very essential to know eee... skills we can communicate and we rule out the thing that Our seniors, or colleagues saying, so it is basic to know English language. Nearly, we exchange all information in English, so we need to...eee... I think it has to be Very important (HP1)

Yes, because by the way, eee... we do all activities in English. For example, I listen to the patient speaking Amharic...eee... Asking every history of the patient in Amharic, but write social history, chief complaints, case history, physical diagnosis and investigations in English. Then, based on the result, every treatment...or management and to prescription of medicine, I write in English. Eee...then, I tell the patient in Amharic. So very important (HP2).

Yes, because every reading materials, guidelines and Manuals are available in English (HP3).

... It is important because we are talking English in instruction eee...m we use also in history taking, in examinations, and also in investigation papers all are written in English, so it is medium of instruction in our working environment. So, English language is essential (Dr.1)

From these responses it could be understood that medical worker exchange information in English, medical terms existed in their hospital was in English, they take instruction from their seniors and rule out in English (see HP1) above. As HP2 above indicates, they did everything in English. They listened to the patient speaking Amharic and then they wrote it in English. Then, they process everything in English and tell the results and instruction in English. From this information it can be concluded that translation skills is needed for health science students. Again, Hp2 listed that they wrote social history, chief complaints, case history, physical diagnosis and investigations in English. This information was really observed by the researcher during hospital ward teaching observation. The researcher realized that these were the gaps seen from internship students’ bedside, round or seminar performance to the end of their session. HP3 also stated that every reading materials, guidelines and Manuals are available in English. This also seen in observed hospitals’ documents.

4.4.3.2. The frequency of using the English language in health professional activities

After identifying necessity or the English language needed in hospital, the researcher asked the frequency of using the English language in their day to day activities. Then, all of them replied always and with the explanations of when they used. This response is similar with the result obtained from the students' questionnaire. HP2 replied, we use always as I mentioned before. Even, I some time ask myself why it is not translated to our language like other sector.” and

HP1 also replied, “In work place, yes, it is always.) And gave example:

For examples, whenever you do some rounds, whenever you exchange with some seniors, whenever you take some orders, when you instruct some nurses, the thing done is communicating with English. So, I often use English unless and otherwise I have annual leave or some other weekends (HP1).

Um.....um Often day to day when we take patients' histories and evaluations registered on patients' charts in English (Dr.1).

Of course, all things eee... if you are in working environment, we use most of the time English language in between the member of medical teams, but eee... we...eee.. Professional individuals to use eee.... with patient, we use our first language, but with medical teams we use English language (Dr.2).

These response can indicate that health professional always use English in all their day to day activities to communicate with medical teams, to take patient's history and to register on their chart.

4.4.3.3. The influence of lack of English language in the success of health care provision

Interview question 4 asked opinion of the respondents if the English language has effects on the provision of quality of health care services and the importance of having fluent command of English on the success of health care provision respectively. The questions were aimed to obtain gaps or existed because of lack of necessary English language or opportunities gained because of having fluent command of English language. They responded as:

It depends. If you are perfect in speaking or taking order or writing or eee... listening or whatever it is on speaking staffs, if you are perfect, I believe that you can take any idea that you're superior is telling you. I believe that it has some effect, but I don't think it can indicate some one's knowledge or I don't believe

that this is the estimation of some ones knowledge, Or I don't think that talking this language would be the total indication of total perfection of health(HP1).

Yes, the more you know English the more you are benefited, eee...but you have to know that fluent English without health knowledge do nothing. Good knowledge of health profession without good English has danger for the previous reasons I mentioned (HP2).

.... For example, if he writes medication, for example, if he doesn't know the spelling may be "Chloramfnicon" if he writes unnecessary spellings or other spelling "Chlophenamine" the first is antibiotics and the second is anti-allergy. Though pharmacist understand with their dosage 250 mg and 2mg respectively, it can create confusion on professional as well as on the patient. It has an impact on the patient, it has an impact on other medical profession because he may work in that setting or sheet (Inst 2).

I just see English as a language, but it might affect in the level of your understanding and expressing eee... your knowledge eee...ee...m since the issue has so many presentations and seminars that is constructed in English language, it might affect the success of the health professionals in medication uuu...m it might affect the level of your confidence that professional do that ... since the presentation, since seminars have been given totally in English. Having poor knowledge in English, would hinder you speaking in front of the clients with professionals or supervisors (Dr.1)

All of the respondents raised almost similar responses. They replied by comparing and contrasting knowledge of English language and Knowledge of health profession, In short, all respondents perceived that English language gaps can influence the success of health care provision . Thus, from the responses it can be understood that the English language gaps can create the health care deliver problem. AS second respondent above stated good knowledge of health profession without good English had danger and vice versa. So this can show us how English language is important for health profession and so needs great consideration.

Another issue mentioned was that they would be unable to service foreigners due to an English language barrier. For example, one responder stated that she required support when foreigners arrived. For this interview, she also responded to the majority of the questions in Amharic, as follows:

....አዎ አስቶርጋም እንጠራለን. አልፎ አልፎ ደግሞ እነሱም የምረዱ ናቸው ና ዶክተር ይመጣል ያናግራቸዋል. እንግልዘኛ ተናጋር ስመጥ ዶክተር አጠራለው እንጅ ብቻየን አልሰራም. አሱ ከነ የተሻለ ነው. ተጋግዘን እሱ ያልገባውን አነ አነ ያልገባኝን እሱ ተጋጊዘን

ነዉ የምንሰራዉ. እንጅ የእንግልዘኛ በጣም ችግር አለ. ብናዉቅ ደስ ይለኛል ግን ለዝ የምጋብዝ ነገር የለም.. (HP3).

The seventh interview question asks the problems of English language skills the respondents or their colleagues encounter while using it in their work place. The aim of the question was to find specific English language problem encounter in health sectors.

I believe grammar, vocabulary, and sometimes pronunciation. There are some professional eee....m Some medical staffs who do not understand the thing written or the thing you put down on paper, so I believe that they can understand medical terms, but there will be a gap of Vocabulary as well as grammar eee....m even, mispronunciation will led eee..... Some into some medical errors (HP1).

In case of colleagues, let me tell you what I encountered. He was fresh. He wrote stomach ache as chief complaint. I think he said because the patient said 'hoden amemegn'. But in medical term we do not use stomach rather abdomen. Even you can't say abdomen it is too general. You have to ask the patient to show you the place where he got pain and decided as right upper quadrant, right lower quadrant, or left upper quadrant and left lower quadrant ...etc.(HP2)

Referral ይመጣል እናነባለን ግን ጥሩ አይጽፏም እሱማ አንዳንድ ግዘ ለመላክ ብቻ ምንጭር ምንጭረ አረግዉ የመምጽፋልን አሉ ግን አኛ እንደ ርፈራል ሆሰጥታል አይደለም. እንደ ጀነራል ሆሰጥታል ስለሆነ ሁሉንም እንደገና Vital sign አንስተን እንደገና history ወስደን እንደገና investigate አርገን ስለሆነ ይህን ያህል ተጽኖ የለዉም. በእንግልዘኛ ችግር የተነሳ ጥሩ ርፈራል የምጽፍ የለም . እንደገና እንጽፋለን እንድሁም ከጻፏት ጋር የማይገናኝ ይልካሉ፤ የጻፏት ሁላ ካለዉ ከዝ የማይገናኝ ይመታል. እንደገና ስለምንሰራ ችግር የለዉም(HP3)

ብዙ ቻለንጆች ያጋጥመናል. ለምሳሌ easily communicate ከስራ ባልደረባ ጋር ልማድረግ ያሰቸግራል. ለምሳሌ Physician order ያረገዉን ነግረ አለ. ያ order የምደረገዉ በ እንግልዘኛ ስለሆነ ያሰቸግራል. የእንግልዘኛ እጥረት ካለ misdiagnosis ልኖር ይችላል. Misinterpretation ልኖር ይችላል. እህ ደገሞ ለጠና በጣም አሰቸጋር ነዉ (HP5).

Be ingilizegna itiret yemote sew alsemawum. Mesirat yalebi ye inglizegna konkowa sayhon, leloch yegna kowankowa new. Ahuni igna amarigna new yeminchilewu gin amarigna yemayichilu bizu patientoch new yemiyagatimun. Bezih yemotum alu. Astorigamiwu rasu amarigna ayichilimina be tesasate terigimo yemutum awukalewu isu lay atiseram neber inde? (HP7).

From the above respondents, it would be observed that the problem of grammar, the problem of vocabulary, the problem of writing, especially, medical vocabulary and the problem of pronunciation existed. Regarding vocabulary the respondents specifically indicated that some health professional particular fresh employee directly wrote by directly translating what the patient told them rather than using medical terms. HP2 exemplify that he encountered health professional who wrote stomachache as a chief complaint which was completely wrong. In health they did not use the word stomach, but abdomen. Even, we did not say abdomen. It has quadrants, for example right Upper quadrant right lower quadrant and Left upper/ lower quadrant. We use these medical terms. HP5 indicated that the referral letter came to their general Hospital is illegible hand writing that they were forced to re-take case history, diagnoses, and investigations.

On the other hand, the HP7 respondent responded in different way. She replied that she never heard patient who died because of shortage of English, but shortage of Amharic. They all know Amharic, but most patient did not know Amharic even their attendant did not know and she knew who died because of not knowing Amharic. She asked me why the researcher did not do on that. Of course the problem she raised was also language problem, but not the objective of this study and needs another research.

4.4.3.4. What health practitioners do with English?

The fifth questions asked what health professional do with English in their professional career. It was aimed to specifically obtain the English language used in health profession in order to answer research question for necessity and in turn indicates expected language contents. The respondents replied as follows:

UUU.....m mainly I do communicate with it. Mainly I do take an order from my superior like senior physicians, whenever we do something with staff we do this language. I also give to my inferiors or who performs under my supervision I use English. Mainly I take order from my superiors as they often love to use English (HP1)

... Without a good history, the patient's problem will remain undiagnosed. Eee... you know eee...m 80% of diagnoses in general medical clinics are made based on the interview you make with the patient. All this written in English. We interview

with Amharic, but write in English. You can't write without English knowledge. Most professionals including me do not write all. Simply, we understand and write two or three sentence because it takes time to write English because it is English and many patients are waiting you outside. Here, eee... the problem is if other professionals treat your patient, it is difficult because he couldn't get full history. Others expected to be written in English are chief complaints, history of present illness, negative and positive statements...eee., past illness, person's social history,eee...family history, systemic review, ...e.eee...physical examination, and management...etc, All this written in English, but we do accordingly is other question...okay?(HP2).

We write the history of a patients, we report physical examination of the patient, even, we document by using English on chart of the patient, we send investigation, we write the name of the patient in English, we connect result in English every information of the patient written and documented in English (Dr.2)

In general, from the above responses it can be understood that in health profession, English language is used to take instruction or order from the superior and to transmit instruction to inferior, to write history, to write chief complaint, to write history of present illness, to writ past illness, to write the patient social history, to write systemic review, physical examination and management. They also use English language to refer internet and books, to prescribe medicine, to write the patient chart and progress consultation history.

As HP2 above indicates 80% of diagnoses in general medical clinics are made based on the interview we made with the patient, and all written in English which they interviewed with Amharic. However, all the professionals including himself did not do that rather write two or three sentences. As a result, in case other health professional took the cases, he could not understand from the profile of the patient and forced to re-ask the patient.

Therefore, these can indicate how English creates gaps in delivering health care system. Here, it also indicates that interviewing skill, translation skill and writing skills are very important skills in health care provision. They have indicated that they have never taught all of them in their educational system. They all took one course which was called health communication. Even it was not given by language expert and it was about how to treat the patient with good communication rather than language skills. Hence, how these students developed the listed skills without learning at their university or health care?

4.4.3.4. The frequency of English language skills used in their professional activities.

The next question asked the English language skill they often use in their professional activities. They replied that writing, reading. Listening and speaking respectively. They replied that listening and speaking skills were also very important, but they use it in Amharic. As one of the respondents indicates health professional should be emphatic listener, but they listened with Amharic. Thus, important skills are writing and reading respectively. For example, PH3 said, “.....eee...m reading and writing because we listen and speak with Amharic.” And the other responded as follow:

...Writing is one of the expressions that we exchange with others, for example, with attendants, with patients when you prescribe some medication, when you report any medical cases you use Writing in English. So I believe in writing and speaking (PH1).

...eee...if it is in terms of English, we use writing, then reading, speaking and listening respectively. By the way... you have to know that listening is the most important to diagnosis patient. Eee.. You have to be good listener (emphatic listener) than speaker as health person, but we listen with our language and speak too. Writing is all in all in English and reading too because you get any medical term written in English you have to read and update yourself as many medications are changed or updated with technology(PH2).

4.4.3.5. The relevance of first year English language courses to students' future profession

The next questions asked if the English language courses they took in the first year helped them in their current profession. This was aimed to investigate how the English language courses they had already taken helped students in their future profession. Then, the responses were provided as follows:

I don't seriously think that they are helpful for our health professions because what we learned was not related to our work. I got nothing from sitting in the English class, so I don't total believe in that, but I developed my medical English after starting the work by watching different movies and by watching YouTube while foreigners teach health within English. The teacher seem unqualified in English. If you asked me for the course, uu...y it has nothing to do with our fields by the way. The English they teach were general English. It was general English that I learned in high school, so it didn't help me (HP1).

uu...y ...I can't tell you the type of course. But it doesn't help as directly. It was just what we have learned in high school (HP2).

Actually, smoothly it was good to take the course, but the high school lessons are very helpful than the English common courses in university (Dr.2).

From all responses provided above, the supportive English language the student took did not help in their future profession. In other words, the English language courses they took did not help student in their target situation. From the findings of this study, it has been found that there has been no English language course which address health students target needs either for academic field of study or for future professional career.

Finally, the respondents suggested design the new English language courses which help students in their future professional career as follows.

I think it must be worked on teaching English or encouraging people to speak in English or make them feel secure when they use English as well as teaching them proper vocabulary, grammar or other that related or used in health profession or medical terms. I think there must be some exclusive English course regarding medical students (S1)

uuu... m..I think I think it needs new curriculum. In university, or somewhere students should learn all how English language used in health care or hospital (HP.2)

I prefer if the course will be prepared by instructors in the context of the university as well as in the context of some department based on some guideline from the ministry of education (ET2).

I hope, there is no someone who doesn't need to improve his English language eee...m, so if English language class is established, it is easy. Otherwise, the lesson that is given as a common courses in college cannot meet the language needs of the students (Dr.2).

According to the remarks, the majority of respondents who made suggestions want additional ESP courses tailored specifically for health science students.

4.5. Hospital/ health care document analysis

To observe how the English language practically used in health science student future profession, looking sample of document written by health professionals was considered essential. Researcher believes that observing the profile of the patient written by health professionals help to obtain practical language needed for health science students and the language gaps exists because of

lack of necessary English language background. This can help design courses according to the demands. The results were categorized into two themes: the main language contents which are relevant to health science students' academic and professional life, and the language gaps existed while performing professional activities. It was primarily intended to reply to the fourth and sixth research questions.

4.5.1. Language topics which are relevant to health science students' academic and professional career

The researcher obtained an active profile picture of the patient written by observed clinicians and internship students and then examined as follows: (see appendix-N).

Extract 12: the first Sample case history:

Chief complaint: cough of 1 week

History of Present illness (HPI):

*This is a 70 years old known CKD Patient for the past 1years known HTN for the past 14 years on enalapril 5 mg po per day currently presented with cough of 1 week the cough is intermittent and productive with whitish sputum. Associated to this she **have** bilateral leg swelling of the 15 days duration. She also complains of SOB of 4 days duration at rest she also **have** orthopnea of 2 pillow, PNO and easily fatigability she also complains of urine color change dark yellow in type of the same duration and urine straining of the same duration Dc no hx of FEVER no hx of medication of Dc no hx of palpitation no hx of yellowish discoloration of the eye no hx of vomiting she came with investigation of wbc 14 THOUSAND WITH...*

First, this document clearly shows that the most commonly used genres are describing the patient, describing the types of pain, describing the medication the patient had taken, and ruling out the differential diagnosis. All of these statements were made to diagnose the disease after interviewing the patient and relying on their clinical knowledge. The above sample extract also contains new English medical terms such as intermittent, productive, and whitish sputum, bilateral swelling, orthopnea, palpitation, and so on. There were numerous abbreviations used, including CKD, HTN, MG, PO, SOB, PNO, DC, hx, and wbc. It also contains errors in subject verb agreement, punctuation, and tenses.

4.5.2. The language gaps existed while performing professional activities

Language gaps from the text above included grammar verb tenses and writing. To begin with, there are mistakes in subject-verb agreements. "She have" was written several times in the text, indicating that it was not a typo, but rather a failure to pay attention to grammar. The tense was then explained as past or present without regard for the chronological order of events. However, in the preceding text, the event before she became ill and went to the hospital should be expressed in past perfect, the progression of the problem from the beginning to the time of diagnosis in present perfect, and the general facts of the case in present simple. The results of the interviews with health professionals revealed that due to a lack of English language skills, it was difficult to understand cases from the patient's profile, and the new doctor was forced to re-ask the patient.

In terms of writing skills, there is no punctuation such as commas or periods. It appears simple, but it may cause confusion. All procedures of diagnoses and investigations of the cases were written in a paragraphs, but should be separated and written in essay form. When comparing similar cases written by specialists, there is a significant difference because they list each condition in order and in an essay writing format.

As a result of the findings, health science students required English language skills to describe a patient, a case, diseases, and medications in medical terminology. The order of adjectives is critical when describing a single case with multiple adjectives. Again, each case is expressed in chronological order, so adverbs and tenses must be learned. How to write cases in a paragraph or essay is also very important.

Extract 13: the second sample written case history:

Again, the next sample written case history also indicate similar results (see Appendix N).

Chief complaint: RTA

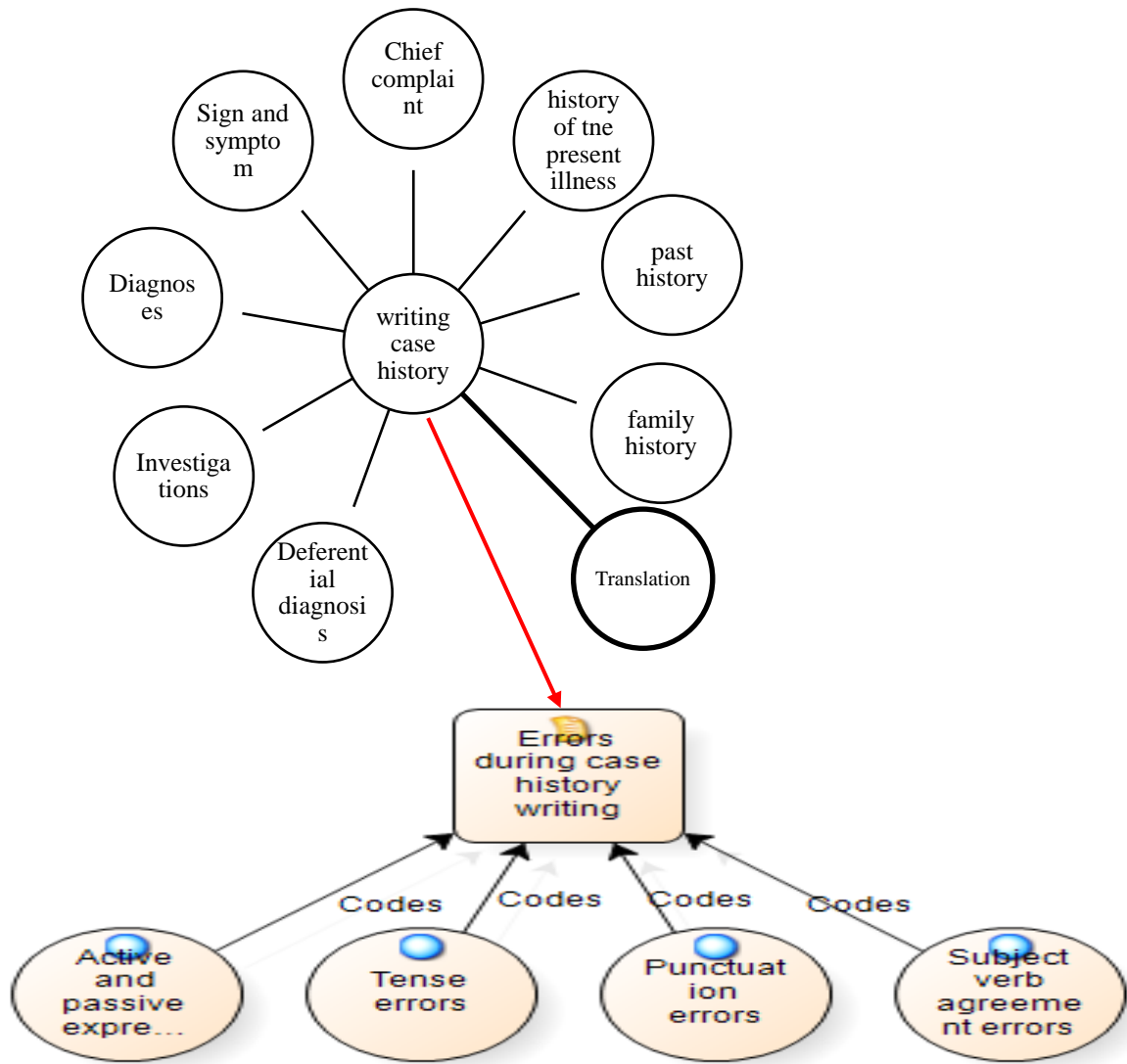
History of Present illness (HPI)

*This is a 34 years old male patient presented with road traffic accident of one day duration he sustained the accident while he was travelling **at** afar regional state to reestablish the damaged health sectors during the war the accident **happens** when the driver **is unable** to control the speed of the car because the bottled water **interferes** below the break there was a total of six travelers and the car **rolls** back once and there **is** no death. He sustained the accident around his neck and head and his left shoulder otherwise no hx of loss of consciousness, no hx*

vomiting, and no hx of bleeding. X-ray was done and shows mid clavicular fracture.

As shown in the extract, the researcher observed health professionals taking longer to write down the cases they took from patients in Amharic. The above statement is taken directly, with the exception of some words being highlighted for emphasis. The researcher highlighted the bolded words to demonstrate tense verb grammar errors. All of the actions occurred in the past, but the practitioners wrote them in the present tense. According to the researcher's observations, chief complaint refers to the primary reason for the patient's visit to the hospital or clinic. The abbreviations RTA, which stand for road traffic accident, were the focus of the preceding chief complaint. This, like the previous cases, is written in a single paragraph with no punctuation. In general, the samples provided above clearly indicate that there were tenses and writing problems in English by health professionals, as well as the types of tenses, vocabularies, and writings required for target situations. The case history written by the internship student was illegible and difficult to analyze, indicating serious language problems (see appendix-N).

The following sample model presents findings on expected language content and language gaps derived from the patient's written case history in a hospital ward.



Model 4: Major Contents and major language gaps during case history writing

CHAPTER FIVE: DISCUSSION

5.0: INTRODUCTION

As stated in the findings section above, all data gathered through questionnaires, the TOEFL test, observations, interviews, and document were thoroughly analysed, and the results were presented. This study investigated the English language and skills required for activities in both academic and professional settings in order to help design appropriate English language courses. Furthermore, health science students' English language learning preferences, English language deficiencies, professional communication, and main language contents were identified, which will aid in the inclusion of appropriate content in course materials. This section, therefore, presents interpretations and discussions of the major findings of the study in line with answering the research questions.

5.1. What are the English language skills often needed to carryout activities in the health science students' academic study and future profession?

This research question was initially two separate items, but they were combined in discussion to clearly show the necessity of each skill in academic and professional contexts. The questions were also prepared and administered to responders for each skill in two parts. The first parts included English language skills that were always needed to participate in activities related to their educational field of study, whereas the second category included questions aimed at gathering information about English language skills that were always needed to participate in future professions. However, they were described in comparison under each skills to make things clearer for the readers as follows.

5.1.1. What are the reading skills frequently needed to carryout activities in the health science students' academic study and future profession?

The first findings revealed that students always need reading skills for activities such as reading tests and exam questions, reading instructions for assignments, reading course handouts, and reading instructions for labs, respectively, in their field of study, whereas the next results showed reading instructions (drug use leaflets, physician decisions), reading prescribed drugs, reading all activities after the surgery, translating English medical or health information to their language,

and reading graphs, charts, and tables are skills they will always need in their future profession. The findings of the interviews also confirmed these results. These findings seem consistent with Karimnia & Khodashenas (2018). They investigated that reading articles and textbooks, reading medical articles in technical journals, reading medical and technical manuals, reading medical text on the internet, reading instruction of medical instruments, reading course pamphlets, reading instruction of drugs and reading medical notes were the most important and frequently used English sub-skills. Lodhi et al. (2018) also found that English was used in different medical academic activities such as following lecture instructions, reading articles and journals, comprehending graphs and charts in academic study, and reading medical literature and understanding the manuals of the medical equipment in professional settings.

5.1.2. What are the writing skills often needed to carryout activities in the health science students' academic study and future profession?

The study found that English writing skills were always needed by health science students when writing project reports or term papers, taking notes from lectures, writing research papers, taking notes from the course book, and writing lab or field reports. The analysis of data in Table 4.7 revealed that for their future health professional careers, English writing skills were always needed to write referral letters, reports (case reports, patient care reports, and follow-up reports), forms (prescriptions, vital signs, admission summaries, discharge summaries, etc.), and project proposals or research. The findings of the interview further revealed that writing is the most important skills and every activities are written and documented in English in both university academic settings(colleges or universities) and professional settings(healthcare or hospital). In this respect, Ferguson (2012) explains that written medical genres include research papers, abstracts, case reports, review articles, peer reviews, letters to the editor, book reviews, and letters of referral. This findings are to some extent inconsistent with Karimnia & Khodashenas (2018). They found that writing articles were the most important and frequently used English sub-skills.

5.1.3. What are the speaking skills often needed to carryout activities in the health science students' academic study and future profession?

The finding of data obtained from the participants implied that speaking skills were always needed in the health science field in giving presentations, participating in class discussions, and asking and answering questions in class, but they were also always needed in the students' future health professions: making presentations at seminars and conferences, attending medical meetings and conferences, speaking about medically related topics, and communicating with colleagues, in that order of importance, but rarely or never communicating with patients and their caretakers. The finding of these study agree with Antic and Milosavljevic (2016) who found that in medical profession, the nature of the job is very often participating in the international conference, seminars and congresses and this force them to emphasize the need for better knowledge of the conference language, for the ability of participating in academic medical discussion with colleagues abroad and for a successful professional exchange without the language barrier. Popa (2013) also found that students' tasks and activities in class includes ordinary communication in EMP like evaluation and opinion formation, expressing points of view and discussing on particular patient- nurse issue to more complex simulations and role play that implemented to different medical situation. Hashim et al. (2014) also discovered that acquiring and developing English speaking skills to become effective communicators in tertiary education and the work place is very important.

The last speaking skills—communicating with patients and patient caretakers—were very important in the health profession, but not in English language according to the results from the health professional interview and hospital observation because such communications were made in local language (Amharic or Afar-Af) rather than English. However, this finding is a little bit deviate from Antic & Milosavljevic (2016) who discovered health professionals need oral skills more closely related to making communication with foreign colleagues and medical staff on strictly medical topics. This difference existed may be due to lack of foreign colleagues in the staff and often use local language (Amharic or Afar-Af) with the patients, and others in oral communications in the study area.

5.1.4. What are the listening skills often needed to carryout activities in the health science students' academic study and future profession?

As the findings indicated, in the academic fields of health science listening skills were needed to listen: to lectures, to instructions and explanations in labs, to radio or TV programs or films about health sciences, and class discussions in their order of degree of recurrence. This finding of study agree with Sudewi (2021) who found that Students' listening comprehension needs include identifying English lectures, taking efficient notes, asking for repetition or explanations, recognizing extensive explanations and directions in English, recognizing different accents and pronunciations, and expanding their vocabulary.

On the other hand, the analysis of the data in Table 4.9 revealed health science students believe that in their future health professions, listening at meetings, seminars, or conferences and listening to presentations in English are regularly needed skills. This finding is similar to Karimnia & Khodashenas (2018) who found that listening to the medical lectures and listening to the presentation in conferences were the most important and frequently used English sub-skills. The finding, furthermore, revealed that listening to a colleague is sometimes needed but listening to a patient is never or rarely needed. This finding seem differ from Wahyuni (2021) who revealed that medical students need greater listening and speaking abilities than they do reading and writing. According to the current study, listening to patients and foreigners was the least necessary listening skill in English because it was done in Amharic. This may be the cause for variation with other researchers' findings. The result of the observations and interviews further revealed that empathic listening skills were needed in the health care system, but it was done in local language or Amharic, not English in the context of this study setting. In relation to this Worthington & Bodie (2020) explain that the art and science of listening as therapeutic communication in health care is more than just a communication technique. They further discuss that Certain and refined listening abilities are also necessary for specific tasks, such as auscultation, a vital ability in physical health evaluation practiced by many health professionals, including doctors, nurses, and paramedics. Listening is a critical ability that allows language learners to receive and interact with language information while also facilitating the development of other language abilities (Goh & Vandergrift, 2022; Vandergrift & Goh, 2012).

5.2. What are the health science students' English language learning preferences?

Regarding the students' wants, the findings revealed that the health science students preferred learning English for their academic studies and their future professional careers. This finding is consistent with the findings of (Silesh and Tamene, 2022). They discovered that present English language courses do not motivate first-year students to enhance their academic language proficiency to continue their studies. Similarly, Ibrahim (2020, p. 83) discovered that "most of the students need English for their medical study." Gaffas (2019) also revealed that the students valued the ESP course, particularly for improving their grasp of technical English medical terms. The results of interviews and observations revealed the priority of English language skills needed in the target situation. Reading skills, writing skills, listening skills, and speaking skills are consequently needed in the health science field of study, whereas writing skills, reading skills, speaking skills and listening skills are needed in health professional activities from most needed to least needed. This is comparable to Karimnia and Khodashenas (2018), who discovered that students prioritize reading competence in terms of frequency of usage, significance, and proficiency. This finding also in some extent agree with Vahdany & Gerivani (2016) who discovered that both medical students and practitioners rated reading abilities more than other language skills, followed by writing skills; speaking skills were the least significant for both groups. In this respect, Abuklaish (2014) also found that scientific students prefer a flexible ESP curriculum that includes practice in both receptive and productive abilities, but with a larger emphasis on reading and writing, best delivered by a bilingual instructor. However, Wahyuni, (2021) revealed that medical students require greater listening and speaking abilities than reading and writing. Antic and Milosavljevic (2016) also found that the skill of speaking is considered to be the most important by all participants, and reading skill was the second, whereas writing skill was the third and listening skill was the least important. This variation may be happens due to the absence of foreign patient and foreign colleagues in the current study settings.

In addressing students' learning preferences, the findings of the interview also indicated what the health science students need in learning and using English language skills in light of academic field of study. The participant students responded that they wanted to be a good writer, speaker, and listener of the English language, but they did not get the chance to learn as they intended.

They also claimed that except for the common course in the first year, no English courses were offered to them. This possibly indicates that the learners wished if the English courses were intended to be pursued in specific situations. This finding is consistent with different researchers' findings. For example, Le, Phan & Le (2021) revealed that nursing and pharmacy students like the contents of their book since it is ESP that is used to teach medical students. Recent studies by Silesh and Tamene (2022) also found that learners in Ethiopian higher education institutions need to learn English to improve their current proficiency level for their target situations, but no English courses were designed accordingly. Antic & Milosavljevic (2016) also indicated that Medical students taking English lessons at the tertiary level already possess some understanding of general English and are now continuing to learn medical English, which is extremely contextual and content-based.

5.3. What are the health science students' English language gaps?

The fourth research question aimed to identify the health science students' current English language abilities and language lacks during the time of study. Here, Nation and Macalister (2010) point out that students' scores on standardized proficiency test like the TOEFL test can be a significant source of information to look at where the learners are at present or lacks. As the finding of TOEFL test results indicated, the average listening skills score was 42.51, which is less than the standard ETS score of 53.1. This interpretation indicates that the students had weak listening abilities, which could indicate that they had trouble understanding spoken English according to the ETS, as stated by Rogers (2011).

The finding of this study also revealed that the average structure and written expression score was 54.55 and the average reading score was 52.67, which are both above the average ETS scores of 52.1 and 51.9, respectively. This result of the structure and written expression implies that students were competent in grammatical structure. The interpretation of reading score also showed that students' had no problem of reading and understanding English texts. Therefore, the results indicate that the health science students had no problems of reading and grammatical structure, but had problem of listening and understanding the message in English-speaking. These findings were partially consistent with Ibrahim (2020), who revealed that medical students at the faculty experienced issues such as a lack of basic abilities like listening and speaking

skills. However, it seems to contrast with the findings of Chatsungnoen (2015), who discovered that the majority of the students had poor English proficiency in all categories. The analysis of the data in Table 4.12 revealed that learners in the current study had no challenges with grammatical structure, although they did have difficulties understanding spoken English.

The findings of the classroom observations also revealed that health science lessons was full of technical English medical terms which are difficult for students to follow their lesson as intended. As a result, the instructors were using more of Amharic language than English which is the medium of instruction. As the findings from classroom observation indicates, the instructor began by speaking English to remind the students of what they had learned in the previous session and to introduce the lesson of the day, except that not a single complete English sentence was heard throughout the whole observed classroom.

The students' interviews also indicate that it is difficult to present or do assignments and to communicate in English. They also had pronunciation problems which is stressful for them. In the instructors' interview, Inst 1 stated, "In every aspect, there are many words they do not write properly; they don't utilize them grammatically." This response may imply that students had significant English language gaps when performing tasks and activities in their major subject area courses.

The researcher also posed probing questions based on the findings of the observations, such as why subject area instructors generally lecture in Amharic, even appending Amharic suffixes to English nouns. They mostly stated two reasons. The first was the students' inability to grasp English medical terminology. Therefore, they used Amharic to better understand the subject. They clearly demonstrated that students lacked the necessary English language skills to understand medical terminology. They also disclosed that instructors themselves also had difficulty articulating the situation completely in English. They stated that, through experience, they had come to the combination of English and Amharic, even at the word level, in order to make the topic clear for students. They also stated that every health science or medical instructor employs such an approach ("Using Amharic in the way of speaking English") as part of their educational advancement. They also had come in a similar way with the current system the

students are learning. These findings from the instructors' interviews indicate that they were using the Amharic language during delivering the course to ease the lesson for students since they had English language gaps, and the instructors themselves had difficulty explaining highly technical medical English terms fully in English language. This finding seem consistent with Gaffas (2019) who revealed that students' biggest problem was identifying the meanings of technical words, which resulted in low performance.

Findings from major subject area course instructors' interviews also revealed the English language gaps students had while doing activities in their field of studies. Health practitioners revealed that their students had speaking, writing and translation problems. This implies that students had significant English language gaps when performing tasks and activities in their major subject area courses, and their teachers were aware of the language gaps. The findings from instructors' interview clearly demonstrated that students lacked the necessary English language skills to understand medical terminology. These gaps (students' inability to grasp English medical terminology as well as instructs themselves difficulty articulating the lesson completely in English) made major subject area teachers generally lecture in Amharic, even appending Amharic suffixes to English words.

The analysis of the data in table 4.14 shows that the average writing score of students was 2.88, which is lower than the standard level (3.5–4.00). This implies that students' writing skills were low. According to the ETS, as stated by Rogers (2011), these findings imply that students were unable to write an acceptable essay, had weak organization and lacked consistency and cohesion. This finding was consistent with the findings of Pratiwi (2021) which indicate that the results of Universitas International Batam college students' writing were not adequate. The findings of the interview with students' participants also further revealed that it was difficult for students to complete or deliver assignments and interact with instructors due to a lack of required English writing skills and knowledge.

The findings of the TOEFL test (Table 4.15) show that 9.1% of the students scored off. This implies that 9.1% of the students did not write on the topic assigned. 10% and 21.5% of the students' writing results was strong inability. That means they scored 1 and 2 out of 6,

respectively, which is below the average. These implications indicate the students' inability to write an acceptable essay. Their organization and development were very weak and or nonexistent; their essay lacked unity and cohesion. The findings further revealed that 24.6 % and 16.9% of the students scored minimal ability and moderate ability (they scored 3 and 4 out of 6 respectively) which imply some minimal ability in writing an acceptable essay, but involved serious weaknesses in organization and development. Significant sentence structure and vocabulary problems occurred, and there were frequent grammatical errors that sometimes made the writer's ideas difficult to comprehend. Very few numbers of students (4.6% of them) indicate strong ability (scored 6 out of 6) which imply that the participant student had the ability to write a well-organized, well-developed, and logical essay.

In general, this findings revealed that the majority of students (65.3 percent) scored less than 3 out of 6, indicating that students' writing skill is less than the minimum requirement. According to ETS, these learners were unable to compose an appropriate essay; their structure and development were very poor or nonexistent, and their papers lacked consistency and cohesiveness. The finding from instructors' interview also revealed that their students had problems of writing skills. The instructor confirmed that their students did not write any assignments though they know the subject matter very well. This finding is congruent with the findings of the Chatsungnoen (2015) study, which revealed that students had inadequate writing skills in both academic and professional contexts. Regarding this Gaffas (2019) also described that many students complained about a lack of writing instruction and practice because it was the most stressed in their English classes.

The findings of the test (Table 4.16) also indicate that the computed mean score of second-year students was 505.22, while the fourth-year score was 485.159. The significance level (P) is 0.024, so using the t-test for independent samples, it was found a significant difference between second year and fourth year of health science students ($t = 2.28$, $df = 128$, $p < 0.05$). This result could indicate that second-year students outperformed the fourth-year students. It can be suggested that since second-year students took the communicative skills courses delivered recently in their first year, they had read more for the course and memorized it, but fourth-year students are far from learning English and might forget it. As the results of the interview indicated, the students' English language base in the college was eroding. In general, from the

findings, it is possible to infer that developing medical English or English for health science students is required according to the language gaps existed.

5.4. How language and skills (professional communications) are used in target situation?

As mentioned earlier in this study, to determine how language and skills (professional communications) are used in health science students' academic and professional career, the academic class sessions and the medical ward learning sessions were observed, and interviews were conducted with students, instructors and health practitioners. From the findings of the observation, it was found out that most of the similar words are different in a medical English context and in an everyday English context. For example, the words diagnosis and investigation, as well as signs and symptoms, are distinct in health science or medical terminology but appear to be synonyms in everyday English. A diagnosis is the outcome of a health professional's history-taking and physical examination, whereas an investigation is the result of a laboratory test. Again, symptoms are the result obtained by asking the patient, but signs are what health professionals could understand by looking at the patient and observing how illness features developed in the patient. Regarding this Gylys & Wedding (2009) explain that Signs are observable, objective markers, but symptoms are subjective and experienced only by the patient. This finding is similar to Harmer (2001) who indicates that word means not necessarily what it suggests, but words might have different connotations depending on the context they occur in.

As the finding from the observation of medical ward learning session (e.g. in extract 11) reveals, the instructor still asked the students what the term "Chief complaint" meant and provided a brief definition: "chief complaint" refers to the reason why the patient is sick or came to the hospital. In almost all their discourse, the instructors were disappointed at the presenter(s) for not using appropriate medical terms. Again, in extract 11, the instructor asked the student how he diagnosed preeclampsia. Then, the students replied with blood pressure. The instructor guided the students, saying, "Okay, raise your BP." Here, the instructor added the verb "rise," while the student replied with the phrase "blood pressure" without indicating the action. The student did not explain situations using verb tenses, did not describe examination processes using medical terminology, and did not express temporal occurrences of the patient's case using frequency

adverbs. This appears to be consistent with the findings of Ibrahim (2020), who revealed that medical students experienced challenges at the faculty, such as a lack of basic skills, particularly listening and speaking abilities. The findings of Chatsungnoen (2015) also revealed that the majority of the undergraduate students showed low levels of English competency in all categories.

According to the findings of the interviews with health professionals, it was difficult to grasp cases from the patient's profile or from the patient's referral slip because the written clinical findings were written in non-sense English, and the new doctor was compelled to re-ask the patient or re-take the case history. Regarding this, Ferguson (2012) explains that the case report is simply a narrative of a single case, detailing the course of a patient's sickness from diagnosis, treatment, and conclusion, generally supplemented by some expert commentary. English is clearly in great demand, not only for learning but also for pursuing a medical profession (Wahyuni, 2021). Hans & Hans (2015) also revealed although students scored very high in their English courses, they demonstrated big failures in applying their knowledge in the workplace due to a lack of professional language to deliver their message. Alfehaid (2011) explains that Fluency in written and spoken English is seen as crucial for success as a medical practitioner. As mentioned earlier, the findings identified that the word sign and symptoms are distinct in health science or medical terminology but appear to be synonyms in everyday English, but the internship students were not familiarized with such professional communications. In this respect, Gyls & Wedding (2009) explain that the language of Medicine is a specialized vocabulary used by healthcare practitioners.

The findings also reveal that health perspective writing skills are very important in students' future health professionals. The finding is consistent with different researchers findings, For example, Gupta et al. (2020) revealed that Prescription writing is a vital and basic skill that a medical student should master during their undergraduate study. In the written case history (extract 12 and extract 13) there are many subject-verb agreement and grammar errors. As the findings in extract 12 indicate, "she have" was written several times in the case history text, which might imply that it is not a slip of pen, but rather a lack of attention to syntax or linguistic gaps. The practitioner also wrote all cases in the present tense though occurrences were in the

past. Harmer (2001) states that communication can suffer if grammatical rules are carelessly violated.

As indicated in extract 12 which was taken directly from the patient's written case history, the text is full of grammar errors. All of the actions were happened in the past, but each of the history of the present illness (HP1) was written in the present tense. Generally, the sample scanned documents can clearly indicate that there were grammar errors, and writing problems in the English language use of health practitioners, and in turn indicated the types of communication necessary for target situations. In sum, from the findings, it is possible to infer that developing medical English or English for health science students is critical according to the professional communications existed.

5.5. What sort of language topics do health science students need to function adequately, both in their academic and professional career?

As mentioned earlier in this study, to determine the English language contents that are relevant to health science students' academic and professional life, the academic class and the medical ward learning were observed and interviews were conducted with students, instructors and health practitioners. From the findings of the classroom observations, hospital ward observations, and analysis of the active profiles of patients in hospital wards, three sample primary components: the case topic, language function, and students' role were identified. The first three themes (antenatal care, acute sinusitis, and cellulitis) were chosen from the audio recorded health science subject area class observation in light of constructing the course framework for academic study (see extracts 1-6 or Appendices I, J, K). The next two (right lower quadrant and pre-eclampsia) were chosen from audio-recorded hospital ward teaching observations (see extracts 7-10 or Appendix M), while the last two (one-week cough and road traffic accident) were chosen based on an analysis of the active profile of patients at the hospital wards (see extracts 12 and 13 or Appendix N) in light of determining professional needs. In academic settings, students' roles were limited to listening, taking notes, asking for clarification, and responding to questions from instructors to demonstrate their understanding while the instructors described processes, procedures, pathogenesis, investigations, clinical diagnosis, common etiologic agent, organ location, and treatment options. In professional settings, students clerked the patient and

presented each stage of the case to the clinical instructors, beginning with obtaining the patient's demographic information, identifying the problem, and managing the problem or condition. The clinical instructors were supervising the students. They assess whether students followed clinical guidelines during the clerking process by asking questions at bedside or round presentations. Then, the clinical instructors provided comments to the students.

According to the findings of the observation, highly technical English medical terms are used in health science academic field of study. In classroom observation 1, for instance, diagnosis, symptoms, facial congestion, upper nasal obstruction, purulent nasal discharge, hyposomia, anosmia, and chief complaints were some of the English medical terms observed in a classroom lesson. Findings from interview with students also reveal that health science students had no English issues before enrolling in college, but that they did have English challenges after enrolling. They reasoned out that because their instructors did not teach in English and instead used Amharic. The researcher also shared some of his views, since when teaching freshman courses, health science students were strong at English, but as the researcher witnessed during bedside or round presentations, they were weak in English. This interview demonstrated that the students had either lost their English language or were unable to reproduce new medical English vocabulary. This finding seems consistent with Takele et al. (2022) who discovered that nursing students often write patient histories, prescriptions, and medication procedures but are studying useless English courses at the University of Gondar.

According to the findings of the exam results, second-year students outperformed fourth-year students. The findings of the students' interview also indicate that learners get English skills neither from the English course nor from their academic instructor as they often use Amharic language while delivering courses. As a result, the English language background they had become deteriorating in the college. Thus, they indicated that students had many problems of the English language. This could be happen because no English course were designed to be pursued in the target situations. Nursing and pharmacy students like the material in their book since it is ESP that is used to teach medical students (Le et al., 2021). This finding indicates that a medical college in the Mekong Delta, Vietnam, uses English for Specific Purpose (ESP), so students were happy with the contents.

However, for Ethiopian medical students, no English courses were given except the common course in the first year. Recent studies also suggest considering learners' needs when designing English material. For example, Chemir & Kitila (2022) suggested that while producing English materials for university students in Ethiopia, course designers must give special attention to the demands of the students.

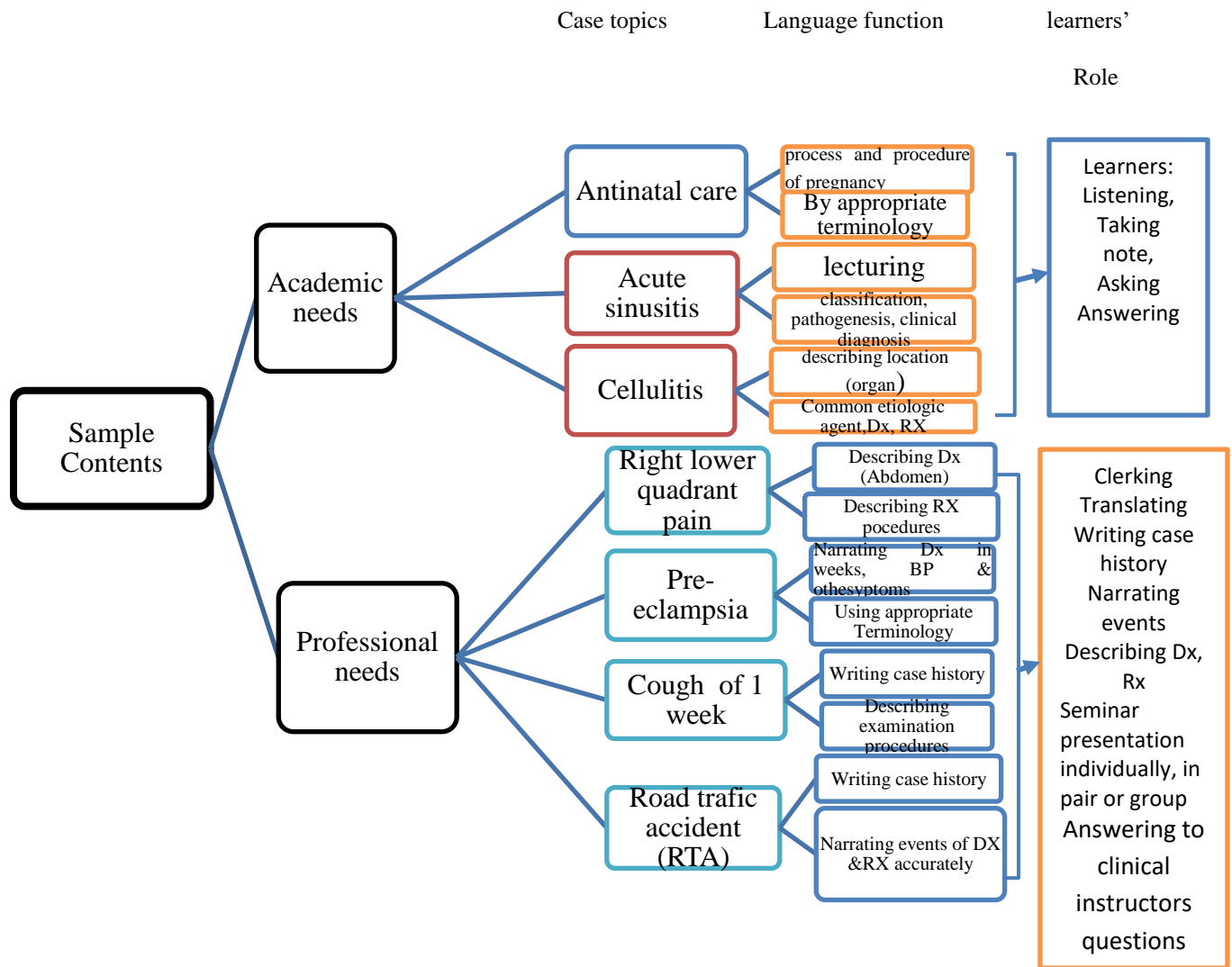
The findings of the test result revealed that students' current status at that moment and deficiencies. The findings of the health science major subject area class, the hospital observations and the interviews also supplemented the results. The findings from the observation of the three departments (public health officer, nursing, and midwifery) classes reveal the English language that are often used in the academic subject of health science. The findings of the hospital observation on the other hand, uncovers the English language abilities required in students' future professional careers.

According to the analysis and findings of both observations and interview, the most difficult situation for internship students was interviewing the patient in Amharic and then, writing the history, chief complaint, history of present illness, vital signs, physical examination, pathophysiology, differential diagnosis, investigations, and management of the case in English to present to the clinical instructor. Therefore, these findings revealed that Writing, speaking, listening, and translation abilities were all required. However, the findings uncovered that learners lack these abilities. This implies that the students have difficulty using verb tenses, describing examination processes using medical terminology, and expressing temporal occurrences using frequency adverbs. This interpretation indicates that health science students lacked essential English language skills and knowledge that help them accomplish their educational and professional activities.

Findings from Health practitioners' interviews also reveal that health practitioners frequently face problems to perform their day-to-day professional activities in English because of a lack of necessary English language background. The implication of these findings was to identify professional communication gaps that arose due to a lack of essential English language skills so as to obtain necessary information regarding the English language contents needed for health science students' future professional careers. As Wahyuni (2021) elucidated, English is clearly in

great demand not only for learning but also for pursuing a medical profession. The finding is consistent with Hans & Hans (2015) who discovered that though students scored very high in their subject, they demonstrated a complete inability to apply their knowledge in the workplace because they lacked adequate language to deliver their message.

The findings also revealed what the Health science students need in learning and using English language skills in light of their future profession. From the result of the scanned document (Extract 12), which was a case history taken from the patient's profile in the medical ward, new medical terms such as intermittent, productive, whitish sputum, bilateral swelling, orthopnea, palpitation, and so on are observed. There are also many abbreviations used, such as CKD, HTN, MG, PO, SOB, PNO, DC, hx, and wbc. These findings can indicate that highly technical medical English terms and many abbreviations were used in health science students' future professions. In this respect, Wahyuni (2021) indicated that English is undeniably important for medical students, both in their studies and in their future jobs. These findings can indicate that especial medical English contents are needed in health science academic and future professions. As a result, the model below provides a sample overview of a sort of language topics for course content framework that help health science students function adequately both in their academic and professional career.



Model 5: Sample Overview of sort of language topics for course content framework

As shown in model 5, the sample sort of language that help design course contents include an overview that relies on multiple distinct topic areas to demonstrate the general structure and features of language in health science academic study and future professional career, as well as the numerous roles that learners play in it. According to the approach, the course will be divided into three primary components: the case topic, language function, and students' role. The first two components can establish the course's linguistic and thematic content, while the third explains how students learn the language.

The course's health science English material might include the following seven case topics: prenatal care, acute sinusitis, cellulitis, right lower quadrant pain, pre-eclampsia, one-week cough, and road traffic accident (RTA). These topics were chosen based on the classroom observations, hospital ward observations, and analysis of the active profiles of patients in hospital wards. The first three themes (antenatal care, acute sinusitis, and cellulitis) were chosen from the audio recorded health science subject are class observation in light of constructing the course for academic study (see extracts 1-6 or Appendices I, J, K). The next two (right lower quadrant and pre-eclampsia) were chosen from audio-recorded hospital ward teaching observations (see extracts 7-10 or Appendix M), while the last two (one-week cough and road traffic accident) were chosen based on an analysis of the active profile of patients at the wards (see extracts 12 and 13 or Appendix N) in light of determining professional needs. They were also utilized for academic purposes as internship students receiving grades based on them. In general, all of the topics were chosen based on how representative the sessions were of problems observed across the whole data collection.

The language function for each session was selected mostly based on a preliminary study of the data to establish what appeared to be the most important difficulties. Once these selections were determined, the transcripts were reviewed for especially salient examples, and the audio segments were examined to ensure that they were of adequate quality for classroom usage.

An attempt was made to indicate the students' roles in both academic and professional settings. In academic contexts, students' roles were confined to listening, taking notes, asking for clarification, and responding questions from instructors to prove their grasp. In professional settings, internship students were clerking the patient, investigating, diagnosing, translating, writing case history, treatment and presenting. According to the model, language courses must activate medical knowledge while also boosting awareness of the broader discourse structure and communication challenges by beginning with a task or tasks related to a case theme. Learners were supposed to role play a wide range of clinical learning settings. This can enable internship students perform activities effectively during clinical practices despite language obstacles, as well as operate and communicate efficiently in their future career. Model 5, on the other hand, emphasizes that learners play a variety of roles during their clinical learning in order to meet their future professional demands. As a result, it is necessary to educate students to clinical

topics and make them aware of the need of language precision while presenting diagnoses (signs and symptoms), investigations, and treatments to clinical instructors. Finally, it is necessary to introduce students to relevant knowledge on how to write and record each and every action in terms of professional communication.

CHAPTER SIX: CONCLUSION AND RECOMMENDATION

6.1. Summary

Investigating the English language needs at higher education institutions is critical because it assists in developing appropriate English courses that meet the needs of the students for the intended use. This can assist students in performing effective activities in their field of study despite language barriers, as well as functioning and communicating efficiently in their future profession. Furthermore, it can increase learners' interest in taking English language courses and help them improve their English skills. This study, therefore, aimed at investigating the English language needs of health science college students at Samara University to design a specific English language course material that met their needs. The study specifically addressed questions about: the English language skills that are frequently needed to carry out activities in health science students' academic studies and future professions, the health science students' English language learning preferences, and the health science students' current English language abilities and gaps. Furthermore, the study focused on how language and skills (professional communications) are used in target situations, as well as identifying sort of language topics that help design English courses which are relevant to health science students' academic and professional career .

The study was conducted with a sample of Samara University health science students (health officer, nursing, and midwifery), ELT instructors, major subject area instructors, and health professionals in the academic year 2021/2022. Thus, this section presents a discussion of the findings obtained through the analysis of various instruments as shown in the preceding section, in order to consolidate and organize them in terms of the study's research question.

To collect data for this study, the researcher employed an explanatory sequential mixed methods design. This design required that data be collected in two phases. In the first phase, quantitative data (questionnaires and tests) were gathered and analyzed. The first impression for this study came from the quantitative data results. Accordingly, the qualitative data were designed to elicit detailed information about health science students' English language needs. Hence, the qualitative data in this study refined, extended, and explained the overall picture obtained from

quantitative data in depth. These qualitative data were gathered via observation, interviews, and document analysis. The observations were made in major subject area classrooms and hospital wards, and the interviews were with health science students, an ELT instructor, a major subject area instructor, and health practitioners. Document analysis of active patients' profiles on the hospital ward was also performed.

The data were analyzed both quantitatively and qualitatively. The data gathered from the questionnaires and tests was analyzed quantitatively. Data were analyzed using descriptive statistics with SPSS 25 computer software (percentage, mean and standard deviation). As previously stated, the test was administered primarily to collect data in order to determine students' current knowledge at that time. The test was then corrected, and the results were converted into the scale scores that ETS uses to determine a student's PBT TOEFL test result. The SPSS 25 computer software was also used to calculate descriptive statistics (percentage, mean and standard deviation). The mean values and standard deviations showed the student's average level based on the standardized TOEFL test score scale. Furthermore, the test questions for which the majority of students incorrectly answer indicate a lack, whereas those for which they correctly answer indicate their current knowledge.

The quantitative findings were discussed alongside the qualitative data findings in relation to the research questions. The qualitative data were analyzed as follows: First, the audio interviews and observations were transcribed. The transcripts were then coded and organized thematically. The analyses were conducted based on thematic categories. In this study, NVivo version 10 was used for computer-assisted qualitative data analysis (CAQDA). This software assisted the researchers in coding the interview and transcribing the audio-recorded classroom observations into free and tree nodes. The free node can be coded in parallel with the open (initial) node, while the tree node is coded in axial order. NVivo version 10 was used to supplement open coding procedures, with the primary goal of developing models and visualizing data presentation in this study. The researchers also described a section of the text or scanned documents that related to answering the study's basic research questions. The data from the five instruments were then triangulated to support and validate one another in the discussions. As a result, findings were discussed in light of the study's research questions. The following are the major findings that depict the English

language needs of health science college students at Samara University in order to design a specific English language course material that meets their needs:

For the first research questions, the study discovered the English language skills that are often needed to do activities related to health science students' academic field of study and future profession. The questions were designed and presented to respondents for each skill in two categories. The first category included English language skills that were often needed to do activities related to their educational field of study, while the second category included questions aimed at gathering information about English language skills that were always needed to do activities in future professions. Accordingly, the findings revealed that health science student respondents replied that they always need reading skills to read test and exam questions, to read instruction for assignment, to read course hand out and to read instruction for labs respectively, whereas they always need reading to read instruction (drug use leaflets, Physician decision), to read prescribed drugs and all activities after the surgery, to read medical books, articles, magazines, etc., read to translate English medical or health information to their own language and to read graphs, charts and tables in their future health profession from the most needed to least needed. The findings of the observations and interviews were also confirmed these findings of the questionnaire.

In terms of writing skills, the study found that respondents believed that writing skills in English were always needed to write project reports/term papers, lecture notices, research papers, course notes, and lab or field reports in their field of study. While in their future health profession, English writing skills were always required to write referral letters, reports (case reports, patient care and follow-up reports), forms (prescriptions, vital signs, admission, discharge summaries, etc.), and project proposals or research. Findings from Classroom observations revealed that students required writing skills in order to take notes during lectures, while interviews with students confirmed the results the questionnaire. According to the interview results, student respondents believe that reading skills are the first most important and writing skills are followed in their field, but health professionals and major subject area instructors believe that writing skills are the first most important and reading is the second most important skills in students' future professional activities.

In terms of speaking skills, the findings revealed that students in the health science field consistently required English speaking skills in order to give presentations, participate in class discussions, and ask and answer questions in class. They sometimes needed introducing oneself and others in different situation and making request for different information, but they did not needed to make telephone call. Whereas, in their future professional career they believed that the speaking skills were always needed in English in making presentations at seminars and conferences, attending medical meeting /conference, Speaking about medical related topics and Communicating with colleague consequently in their order of importance, but they rarely or never needed communicating with patients and with patients 'care taker. As obtained from health professional interview and hospital observation, the speaking skills (communicating with patient and patient care takers) were very important in health profession, but the respondent perceived that they were not needed because communications with patients were not made in English, but in Amharic. The results of the students' interviews indicate that they want to learn a variety of English language skills. They went to learn pronunciation and want to have a good conversation. Even the findings revealed that some students blamed their instructor for wasting their time by teaching them unnecessary language. These findings indicate that students were dissatisfied with the English courses they had taken in their first year because they were unrelated to their field. The results of the interview with the student participant revealed that normal English words and medical English words differed. As a result, the students needed to improve their medical and general English skills.

It was discovered that in health science academic field of studies, listening skills were needed, to listen to lectures, to listen to instructions and explanations in labs, to listen to radio, TV programs or films about health sciences and listening to class discussion in their order of degree of recurrence, whereas in learners' future health professions, listening to meetings, seminars or conferences and listening to presentation in English are regularly needed skills , while listening to colleague is sometimes needed, but listening to patient is never or rarely needed. Listening to patient and listening to foreigners are least needed listening skills in English. These appear to indicate that the patients are Ethiopians and non-English speakers, so health professionals are forced listening to them speaking Amharic while writing and documenting all aspects of the cases (from history taking to investigation and treatment) is in English.

The third research question sought to address the needs of health science students in terms of English language learning preferences. It helped to identify what the student wished to learn. This is called wants, as indicated by Hutchison and Waters (1987). Then, the study revealed that the student participants highly preferred technical vocabularies (Vocabulary taken from health science/ medical field), learning English to help them in their academic study, learning English to be successful in their health profession and wishing health science vocabulary to be included in the English language skills courses. The result also showed that they preferred topics, activities and contents concerning health science to be included in the English language skills courses materials. However, as indicated from the result of table 4.10 of items Q3H, Q3G, and Q3F, Students did not decide whether they learned English for personal interest ($M=3.02$), or whether they learned to obtain their degree, but they did not learn English to join English culture ($M=2.47$). These findings suggest that the participants wanted to learn English in order to succeed in their academic studies and future professional careers.

The findings of qualitative data obtained through interviews with participant students also revealed that the students desired to learn more medical English or English language that will be used in their future profession, as well as some general English, in order to communicate on various issues with foreigners or any English language speaker about their profession. As a result of this information, it is possible to conclude that health science students preferred learning English for both academic purposes and their future professional careers.

To answer the fourth research question, student participants were given the PBT TOEFL test. It was discovered that students had poor proficiency in listening and in writing skills. The average score of the students listening test was 42.51(see table 4.12), but according to ETS, the mean score of listening comprehension is 53.1. According to ETS, students' poor proficiency of listening skills indicated that students had difficulty in understanding spoken English. During their interview, the student participants also admitted having difficulty in understanding spoken English pronunciation and pronouncing the majority of English medical words. As a result, an analysis of the students' interviews about their English language difficulties revealed that they had difficulty listening to and understanding spoken English.

The interview results with the major subject area instructor also revealed that students had difficulty understanding lessons if they were all taught in English, and they stated that this was

the primary reason for using Amharic. However, the result indicated that students were good at structure and written expression and reading comprehension as the mean score was 54.55 and 52.67 respectively, while the average structure and written expression score is 52.1 and the average reading score is 51.9 according to the ETS standards. According to the standards, above the given average shows that the students were good at structure and written expression as well as reading skills. This could imply that students had no grammar issues, as well as difficulties reading and answering English questions.

The next gap observed in the test results was writing ability. As previously stated, writing was delivered separately from the other skills, and the scoring system was different. The average score of participant students were 2.89 while the average score expected according to ETS is 3.5 to 4.0. Besides, the students writing score in % was computed to see each individual score and its interpretation as provided by Rogers (2011). Then the result indicated that the majority of the students (63.7% of them) scored less than 3 out of 6 which indicates students scored less than minimal ability in writing. This implies that these students had inability to write an acceptable Essay; their organization and development are very weak and or nonexistent, and Lack unity and cohesion (see table 4.15).

Overall, the test results show that students had good proficiency in structure and written expression, implying that they had no grammar or usage issues, and the reading score results showed that students could read and answer questions written in English. However, they had poor listening skills, indicating that the students struggled to understand spoken English. Furthermore, they lacked writing skills. It was also discovered that the students appear to lack vocabulary for health terminology, such as the location of the organ, as well as the English language used to write and explain the case history they obtained from the patient in Amharic. Overall, the students in the study performed well in terms of grammatical structure and reading skills, but they lacked listening and writing proficiency.

The findings further revealed how language and skills (professional communication) are used in the target situation. According to the findings from the hospital ward teaching, the students performed physical examinations of the patients without understanding the meanings of medical terms and their interpretations. The clinical instructor/supervisor in the hospital, annoyingly emphasized that inspection medically involves looking at the patient's exterior body with the

naked eye to observe the prior scar, conspicuous nerves, etc. Percussion in medicine refers to tapping with a finger to evaluate consolidation, air or liquid filled for the lungs, and organomegaly for the abdomen, whereas palpation refers to touching with the palm of the hands to identify discomfort and organomegaly. Each of these physical examinations revealed specific information about the inside sick organ. However, the majority of the students observed were unfamiliar with the meanings and interpretations of medical words such as examination, auscultation, palpation, and percussion in professional discussions.

As a result, it was discovered that these were some of the highly technical language topics that health science students should learn during their undergraduate education in order to excel in their future professional careers. Without language teachers teaching these technical language (professional communication), how can health professionals acquire input of these highly technical medical terms to execute their work properly? They may develop through time with experience, but they may create numerous issues or medical blunders until they perfect the process.

It was also discovered that the participant student utilized some medical terms unintentionally, without comprehending their significance. For example, the student stated that "HEENT is normal," but when the teacher asked him to clarify on what "normal HEENT" meant, he had no idea. According to the teachers' explanation, 'HEENT' is an acronym for head, ear, eye, nose, and trachea. When inspecting these HEENT, the student was meant to explain using medical terminology, but he did not. Again, after having spent almost a month in the hospital ward, the other presenter could not grasp what the chief complaint meant. Still, the teacher inquired about the meaning of chief complaint and provided a concise definition: chief complaint refers to the reason why the patient sought care or came to the hospital, and it is written in one or two words only. Almost all of the instructor's discourse focuses on explaining the meaning of technical terms rather than developing learners' practical use of their cognitive understanding of health in treating patients. As a result, the findings revealed that the students struggled with professional communication.

Specifically, the findings revealed that the most difficult situation for internship students was interviewing the patient in Amharic and writing the history, chief complaint, history of present illness, vital sign, physical examination, pathophysiology, differential diagnosis, investigations,

and case management and presenting it to the clinical instructor in English. The researcher discovered that these tasks required proper understanding of tenses, particularly past perfect, past, present perfect, and simple present in both active and passive forms, as well as relevant prior knowledge of medical or health-related English. However, as noticed during the instruction session, students lack the requisite English language abilities required for health care providing. Though it was difficult to determine whether it was a lack of necessary English language skills or a lack of cognitive knowledge of the major subject area, it was discovered that the learners interviewed the patient on the bed of the medical ward in Amharic and rushed to the ward office to write or copy from the patient's file what regular health professionals wrote. However, the study noted that the clinical instructor knew if the internship students did it on their own or plagiarized, by asking them to tell him the medical terms they used, as well as the location and pathology of the organs. For example, as previously noted, the instructor inquired about "typical HEENT," but the student was unable to reply. The majority of the learners were found to be unfamiliar with the meanings of the technical terms they employed.

The findings from hospital document analysis also revealed that health science students need English language skills to explain a patient, a case, ailments, and drugs in medical terminology. As one case was detailed with several adjectives, the sequence of adjectives is critical. Again, each case was stated chronologically, so they had to master adverbs and tenses. How to write cases in a paragraph or essay was also extremely important.

Interviews with health practitioners revealed that there was an issue with grammar and vocabulary, particularly medical terms. Regarding language, respondents notably said that some health professionals, particularly, new employees wrote by simply interpreting what the patient told them rather than using medical terminology. A respondent exemplify that he experienced a new employee wrote stomach discomfort as the chief complaint, which was entirely incorrect. In health, they used the word abdomen rather than stomach. They didn't even say abdomen. It has quadrants, such as the right upper quadrant, right lower quadrant, and left upper/lower quadrants. The findings also indicated the prior English language skills they often used in health professional activities. They argued that writing, reading, listening and speaking respectively. They pointed out that listening and speaking skills were also very important, but they used it in Amharic. They argued that health professional should be emphatic listener, but they listened with

Amharic. Thus, important English skills were writing and reading respectively. The findings revealed that interviewing, translation, and writing abilities are critical skills in health care delivery; however, health practitioners claimed that they had never learned all of these skills in any of their English language educational systems.

It was also discovered that the medical English utilized was distinct from Normal English. Diagnosis, investigation, sign, symptoms, nasal obstruction, hyposmia, anosmia, and major complaint were among the medical terms used often throughout that session. As the researcher understood from the observed classroom, the words diagnosis and investigation; and sign and symptoms are different in health science or medical terms but seem synonymous in everyday English. Diagnosis is the result which the health professionals obtained by history taking and physical examination, whereas investigation is the result obtained from laboratory. Again, symptoms is the result obtained by asking the patient while sign is what the health professionals understood by looking the patient from the manifestation of the disease characteristics on the patient.

Accordingly, from the observed classrooms, an attempt was made to identify lexical items, sentences and grammatical structure used in the health science classes. It was observed that the instructors observed presented the lesson from the power point on the projector. On their slide of the power point of the projector all words and phrases existed. They explained these words or phrases within Amharic language. For this reason, it was difficult to know the structural patterns of the language from the power point, but from the transcription of the instructors' lesson, it could be understood that simple sentences, compound sentences and complex sentences were used. Again, from clenched Amharic and English presentation of the transcription, it appeared that simple presentences were mainly used in all subjects. Regarding lexical types, in the entire observed classroom, major subject area courses of health science consist of more of technical medical English words and abbreviations which might be understood by health professionals only. Some words seem English words, but different meaning in health context. For example, in normal English words, diagnosis and investigation seem synonymous, but in health completely different. As it was observed, diagnosis is what the health professional found from history taking and physical examination while investigation is health problems found through laboratory, MRI or CT scan.

The findings indicated that highly technical health or medical terms are employed in health professional communication contexts. Some of them are gestational age, multiple gestation, malaria prophylaxis, tetanus toxoid, antepartum hemorrhage, post-partum hemorrhage, cephalic presentation, breech presentation, cesarean section, pre-term, term, post term, para, multipara, gravida, multi gravida, laceration, peristalsis, hydrocephalus, puerperal sepsis, preterm birth, sciatic nerve, congenital malformation, Premature rupture of membrane, episiotomy, lactation, spontaneous abortion, stillbirth and Ectopic pregnancy, Acute, subacute, chronic, sign, symptoms, congestion, hyposmia/anosmia, halitosis, sinusitis, Pathogenesis, Etiology, corticosteroid, purulent nasal discharge, Investigation and decongestant, cellulitis, subcutaneous, fissuring, etiology, numbness, tingling, palpation and differential diagnosis . There were also many abbreviations used in this observed class. Some of them are ANC ,Dx, Px, DM, HTN, RH, APH, ART, PMTCT, TT, STI, MTCT, CD4, IV, IUGR and LBW, RV, Pneumonia, Influenza, M.catarrhalis, CT, Nasal FB, FESS, CeS, Gm, RX, po, IV, Im, qid, GBSC, VMT and AFB. It was found that these technical words or phrases and abbreviations are some of the lexis (professional communications) needed for health science students in their professional career.

- According to the findings of this study, health science students required English to write laboratory reports, assignments, and seminars in their academic studies, and they were expected to write bedside reports, round reports, seminars, history, chief complaint, history of present illness, case reports, medication reports, medical progress reports, and referral letters as needed in their future professional careers. To carry out all of these actions, they need highly technical health-related terms. They also required adjectives and their sequence, as each diagnosis was defined using two or more adjectives. Adverbs of times, adverbs of frequencies including grammar tenses are highly needed as every case was described in terms of starting time, duration and frequencies. As a result, if students did not learn these skills in English class at their institution, how they coped with them should be a major concern.

6.2. Conclusion

As indicated earlier, all of the data collected through questionnaire, Test, observations, document analysis, and interviews were carefully analyzed, and the results were presented and discussed. Based on the findings and discussions, the following conclusions were drawn:

- The findings revealed that health science student respondents indicated that they always need reading skills to read test and exam questions, to read instruction for assignment, to read course hand out and to read instruction for labs respectively, whereas they always needed reading in their future health profession to read instruction(drug use leaflets, Physician decision), to read prescribed drugs and all activities after the surgery are written, to read medical books, articles, magazines, etc., read to translate English medical or health information to their own language and to read graphs, charts and tables from the most needed to least needed. From this we can draw a conclusion that reading to do exam questions, reading instructions for assignments, reading course hand out, reading instructions for labs are the reading skills often needed in health science academic field of study, whereas reading instruction(drug use leaflets, Physician decision), reading prescribed drugs and all activities after the surgery are written, reading medical books, articles, magazines, etc., reading to translate English medical or health information to their own language and to reading graphs, charts and tables are reading skills needed to do professional activities in students future professional career.
- The study found that writing skills in English were always required to create project reports/term papers, lecture notices, research papers, course book notes, and lab or field reports in health science students' field of study. While in their future health profession, English writing skills were always needed to write referral letters, reports (case reports, patient care and follow-up reports), forms (prescriptions, vital signs, admission, discharge summaries, etc.), and project proposals or research. As a result, it is possible to infer that these are the English language writing skills that health science students should learn during their university or college education in order to excel in both their academic and future professional careers.

Regarding the speaking skills, the findings indicated that speaking English skill is always needed in health science field of study to give presentation, to participate in Class discussion and to ask and to answer questions in class. Further, introducing oneself and others in different situation and making request for different information are sometimes needed, whereas in their future professional career the students always needed the

speaking English skills in making presentations at seminars and conferences, attending medical meeting /conference, Speaking about medical related topics and Communicating with colleague consequently in their order of importance, but they rarely or never needed communicating with patients and with patients 'care taker. This demonstrates the need of developing these speaking abilities particularly for health science students.

It was found that in health science academic field of studies, listening skills were always needed, to listen to lecture, to listen to instructions and explanations in labs, to listen to radio, TV programs or films about health sciences and listening to class discussion in their order of degree of recurrence, whereas in learners' future health professions, listening to meetings, seminars or conferences and listening to presentation in English are regularly needed skills , while listening to colleague is sometimes needed, but listening to patient is never or rarely needed. Listening to patient and listening to foreigners are least needed listening English skills. From these findings, it can be concluded that listening to lectures, listening to instructions and explanations in labs, listening to radio, TV programmes or films about health sciences, and listening to class discussion are the most important listening skills that help perform tasks in academic context, while listening to meetings, seminars, or conferences and listening to presentations in English are the most important listening skills that help do activities in professional context.

- The findings also revealed health science students' preferences for English language learning. The study revealed that the student participants highly preferred technical vocabularies (Vocabulary taken from health science/ medical field), learning English to help them in their academic study, learning English to be successful in their health profession and wishing health science vocabulary to be included in the English language skills courses. They also needed English language skills to describe a patient, the case, the diseases, and the medications within medical terms. From the findings, it can be concluded that the students need all the basic skills and sub-skills that are predominantly related to medical English. Therefore, it can be concluded that students prefer to learn targeted English for Specific Purposes (ESP) instruction that focuses on medical

terminology, clinical communications, academic and professional writings(such as research papers and case reports).

- The study showed students' present situation during the time of study. Participant students had good proficiency in structure and written expression, which implied that the students had ability in grammar and usage. The reading test results also demonstrated that students could read and respond to questions written in English. They did, however, have weak listening abilities, which showed that the learners had difficulties understanding spoken English. Furthermore, they had little or no writing skills. In other words, the students in the study were proficient in grammatical structure and reading abilities, but they lacked proficiency in listening and writing. However, writing abilities in English were the most important in health professional activities and the second most important in health science academic fields of study according to the findings of this study. The findings also showed that a lack of necessary background in health-related English language and skills created gaps in academic study as well as in the delivery of the healthcare system. According to the study, writing skills are the most important in students' future professional career. It is also critical to understand how to construct a case in a paragraph or an essay. Therefore, the key conclusions drawn from this study is that students frequently struggle with understanding technical vocabulary , interpreting medical literature, and engaging in professional communication like writing patient reports, research articles, or participating in class discussions. These gaps highlight the persistent need for an English for Specific Purpose (ESP) curriculum tailored to the unique needs of health students.
- The results of the study also revealed that the health science departments (public health officer, nursing, and midwifery) uses almost similar professional communications. Based on the findings, it can be concluded that in each health science departments, diseases, their pathophysiology, etiology, diagnosis, signs and symptoms, differential diagnosis, investigations, management, and prevention are all written in highly technical vocabularies of health-related English. The findings revealed that major subject area courses of health science consist of more of technical medical English words and

abbreviations which might be understood by health professionals only. Some words seem English words, but different meaning in health context. Thus, they could not be managed without appropriate background knowledge of these highly technical medical language. As a result, it is possible to conclude that a systematic course design of English language instruction is urgently needed. This includes task-based learning, the use of authentic health related materials, and increased exposure to communicative activities that reflect real-world professional scenarios.

- The findings also showed that health science students needed English language skills to explain a patient, a case, illnesses, and treatments and document them in English medical terminology. To specify differential diagnosis, each case was represented in terms of events occurring chronologically. The findings of the observation from the hospital wards, on the other hand, demonstrated that the internship students' inability to conduct these duties as intended was due to a lack of the essential medical English background. Based on this, we can conclude that health science students were expected to learn how to describe and write human diseases, their pathophysiology, etiology, diagnosis, signs and symptoms, differential diagnosis, investigations, management, and prevention within highly technical vocabularies of health-related English. In a nutshell, the course contents should cover describing a patient, the case, illnesses, and treatments in medical terminology. Similarly, writing lecture notes, taking notes from the course book, and writing lab or field reports, project reports/term papers, and research papers in their field of study is quite important.
- Further, for their future health profession, the contents would include composing and reading referral letters, writing and reading reports (case reports, patient care and follow-up reports), writing and reading forms (prescriptions, vital signs, admission, discharge summaries, etc.) and writing and reading project proposal or research. Furthermore, bedside reports, round reports, seminars, taking case histories, chief complaints, histories of present illnesses, case reports, medication reports, medical progress reports, and referral letters are all required for academic success during the internship and for students' future professional careers.

- To summarize, taking all the findings together, we can deduce that the English language needs, particularly the English language requirements in the health science field of study and professional career, were never addressed or incorporated in university courses as the actual language used in the discipline. Therefore, improving the English language competence of Samara university's health science students is both an academic and strategic step toward producing globally competent healthcare professionals. By addressing addressing their specific language needs within a focused and supportive educational framework, the university can significantly improve its students' academic performance as well as their future career readiness.

6.3. Recommendation

To begin, this study identified the English language skills needed for health science students to engage in academic and professional activities. The frequency with which each English skills is needed has been identified. For example, reading to do exam questions, reading instructions for assignments, reading course handouts, reading instructions for labs are the reading skills often needed in health science academic field of study, whereas reading instruction(drug use leaflets, Physician decision), reading prescribed drugs and all activities after the surgery are written, reading medical books, articles, magazines, etc., reading to translate English medical or health information to their own language and to reading graphs, charts and tables are reading skills needed to do professional activities in students future professional career. Writing skills in English were always need to create project reports/term papers, lecture notices, research papers, course book notes, and lab or field reports in their field of studies. While in students future health profession, English writing skills were always needed to produce referral letters, reports (case reports, patient care and follow-up reports), forms (prescriptions, vital signs, admission, discharge summaries, etc.), and project proposals or research. Therefore, it needs to design appropriate ESP courses for health science students that incorporate medical terminology, clinical communications, and authentic materials such as patient case histories, diagnoses and case reports.

Most of the health science students seem to always need health-related English but rarely need general English. They need to operate well in English as a means of learning their fields of study and professional career. It is suggested that the course focusses on interactive activities such as role-playing, group discussions and oral presentations based on teaching and learning activities that the students need and prefer to learn from the English courses.

The finding revealed that health science students had more difficulty with writing and listening English language skills. The study also revealed that the interns' inability to perform their activities as intended was mainly because of a lack of the necessary medical English background. As a result, ESP courses that include the English language needs and gaps that enable health science students to do well in both academic studies and their future professional careers should be designed based on the current findings. It is suggested based on the findings that the course materials should focus more on reading skills and listening skills for students' academic study in the first two academic years. Then, followed by writing, speaking and translation skills that help them during their internship and further help them in their future professional career in the remaining year.

As shown in the discussion section, the findings revealed that students did not learn the English language skills needed in their academic field of study, but rather the two English language skills courses, locally known as "communicative English language skills I" and "communicative English language skills II," which are offered as common courses in the first year of study. However, the language skills they learned from these courses never address their language demands (professional communications) in their academic field of study and in their future profession. Therefore, different English language courses which assist students pursue their academic study and understand professional communications throughout their university education years, particularly, during their internship programs need to be designed. Thus, English should be taught to health science students not only as a common courses, but also as a key subject area course. It is proposed that the English language be used extensively in health science contexts and considered the primary means of communication for carrying out a variety of different activities.

The result also indicated that highly technical medical English terms are used in health science academic fields of study and their future professional career in describing a patient, the case, the diseases, and the medications. Based on the findings, it is also recommended that the course materials include each language skill developed from these aspects in order to help learners operate well in English as a means of learning their fields of study. It also suggested that closer collaboration between language instructors and health Science College to align course content with actual academic and professional needs.

Though the study was valuable in identifying the English language needs of health science students and offering recommendations on how to meet those needs, it does have shortcomings that must be acknowledged and addressed. To begin, the study's usefulness was limited because it did not include medical students. It also did not account for the talks between practitioners and patients. For example, video recording practitioners gathering patients' case histories in the local language (Afaraf or Amharic) and writing them in English may affect students' language skills use and performance improvement. The findings may not be generalizable because the study is primarily concerned with one College of Samara University, but they can be applied to other higher education institutions that have a comparable background to the current study area settings. Based on these gaps, the study recommends more research in the following areas:

- Video recording practitioners taking patients' case histories in the local language and writing them in English might help with the creation of course materials that address the exceptional needs of health science students' English language needs. Therefore, analyzing the practitioners and patients' discourse would be a significant contribution.
- Future research could investigate the effectiveness of ESP interventions by comparing student outcomes before and after course implementation.
- It would also be beneficial to investigate clinical communication training, language anxiety, and the role of code-switching in multilingual medical settings.
- Furthermore, a longitudinal study of Ethiopian higher education institutions' English language needs should be conducted.

Finally, it could be possible to replicate the present study by considering the following insights:

- Increasing the number of participants from different universities.

- Analyzing and comparing classroom discourse as well as practitioners and patients' discourse.

6.4. Implication of the Study

This study has significant implications for course designers, language instructors, policymakers and academic support staff, particularly those of Health Sciences. The findings give a better understanding of the specific English language skills that health science students need to succeed academically and professionally.

6.4.1. Course design

The findings highlight the need for a more focused English for Specific Purposes (ESP) that is tailored to language need of health science. Medical vocabulary acquisition, academic and professional writing as well as reading skills, and oral communication skills applicable to academic and clinical settings should be emphasized.

6.4.2. Instructional approach

English language instructors should incorporate authentic materials into their lessons, such as medical case studies, journal articles, patient records and clinical discussions. Using multidisciplinary teaching teams, including health science professionals and English teachers can make the lesson more practical. This contextualized approach will help to narrow the gap between general English proficiency and the specialized language functions needed in health science disciplines.

6.4.3. Interdepartmental collaboration

To ensure that language instruction and disciplinary content are aligned, English language teachers and health science faculty must collaborate more effectively. Interdisciplinary collaboration can improve the relevance and effectiveness of English language courses.

6.4.4. Policy and resource allocation

University administrator should consider allowing funds for the creation of specialized language laboratories, peer tutoring programs, and English proficiency workshops. These types of support structure can also help in narrowing language gaps and improving academic performance.

6.4.5. Student empowerment

Identifying and addressing students' English language needs can help them feel more confident in classroom discussions, clinical placements and professional interactions. Finally, this can improve their English language skills as future health professionals working in any medical settings.

6.4.6. Future research

The study emphasizes the importance of continued study into English language needs across departments and academic levels. Longitudinal studies and comparative analyses can provide more detailed insight into how language needs change over time and in response to change in academic and professional expectations.

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Published Articles

Article one: Assessing health science students' English language lacks: learners' needs analysis <https://journal.unnes.ac.id/sju/elt/article/view/74952>

Article Two: An investigation into health science students' English language needs
<https://science-res.com/index.php/jsmula>

Article Three: The English Language Needs Analysis of Samara University Health Science Students: The Implication for Designing Specific English Language Course
<https://journals.ju.edu.et/index.php/ejssls/article/view/5444/1908>

Article four: Analysis of Health Science Students' Academic English Language Needs: The Case of Samara University
<https://aujssd.ethernet.edu.et/index.php/jssd/article/view/520>

APPENDICIES

Appendix- A: Consent form for Students

Dear Student

My name is Tessema Gilo Gayessa. Currently, I am doing my PhD in English Language Teaching (ELT) at Addis Ababa University, Ethiopia. I am conducting a study on “**An Investigation into Health Science Students’ English Language Needs: Samara University in Focus.**” I would like to invite you to participate in my research study.

Your participation in this study is completely voluntary. If you do not wish to participate, you are not obligated to. If you change your mind and want to stop participating in this study, you can withdraw from the project at any time. All comments and responses will be kept confidential. If you agree to participate in my study, the first step will be to complete a questionnaire, which will take about 25 minutes of your time. Second, I will attend your six classroom periods for class observations, which I will do solely for the purpose of this research and have nothing to do with your learning. Third, you will be interviewed for 15–20 minutes. The interview will take place outside of the classroom, but within the school grounds. The researcher will audio-record the interview, and field notes will be taken as needed.

The findings from this study will be used to write a doctoral dissertation and possibly some articles. If you have any questions during the study, please contact the researcher: Tessema Gilo (0923 13 9180)

Thank you in advance for your participation in this research study.

With Regards,

Tessema Gilo,

Addis Ababa University, Ethiopia

+251 923139180

Gilotessema@gmail.com

Appendix- B: Consent form for instructors and health professionals

Dear instructor,

My name is Tessema Gillo Gayessa. Currently, I am doing my PhD in English Language Teaching (ELT) at Addis Ababa University, Ethiopia. I am conducting a study on “**An Investigation into Health Science Students’ English Language Needs: The case of Samara University.**” I would like to invite you to participate in my research study.

The purpose of this study is to investigate Health Science Students’ English Language Needs for their academic study and their future profession. Observations and interviews are some of the instruments used in this study, and I need you to participate and provide me with the necessary data.

Your participation in this study is entirely voluntary. If you do not want to participate, you are not obligated to. If you change your mind and wish to withdraw from this study, you may do so at any time. All comments and responses will remain strictly confidential. The findings from this study will be used to write a doctoral dissertation and possibly some articles. Individuals will not be identified in any of the writings. For reasons of confidentiality, code is used instead of your real name. If you have any questions during the study, or if you experience any uneasiness as a result of participating in the study, you can contact the researcher: Tessema Gillo, 0923139180

If you agree to participate in the study, you will be observed for at least six lessons taught in your classroom/hospital wards and interviewed once. The length of your observation will be determined by the class period on that particular day. Throughout the observation period, the researcher will record audio and take field notes. The interviews will occur outside of the classroom. The interviews will be audio recorded. Field notes will be taken during the interviews.

I would like to request that you sign a written consent form to confirm your willingness to participate in this study.

Thank you in advance for your participation in this research study.

With Regards,

Tessema Gillo ,

Addis Ababa University, Ethiopia

+251 923139180

Gilotessema@gmail.com

Appendix –C: Students’ Questionnaire

STUDENTS’ QUESTIONNAIRE

Dear respondent,

The purpose of this questionnaire is to collect information that will be used for a PhD research entitled “**An Investigation into Health Science Students’ English Language Needs: Samara University in Focus.**” Hence, your genuine responses to each question have a significant role for the success of this study.

In the questionnaire, there are questions which ask background information and general questions concerning your English language needs in your academic study and professional career. The questions comprise rating, short answer and Likert scale questions divided into different themes describing health science students’ English language needs. Thus, you are kindly requested to read the instructions under each section and answer the questions accordingly. Any information from the respondents will kept confidential.

Thank you for your cooperation!

Part One: Background Information

Instruction: Please provide information on the space provided or by putting a tick (✓) mark in the rectangle.

1. Sex: Male Female
2. Age: Below 19 20- 24 25-29 above 30
3. Department (field of study) _____
4. Year of study in the university: 1st 2nd 3rd 4th
5. Your mother tongue _____

Part Two: Information about your English Language needs for your field of study

1. How often do you need the following English language skills to do activities in your fields of study? Please rank each activity according to frequency of needs. Put a tick (✓) marks in column of numbers (1-5) of your choice for each activities. Use the following key.

1= never needed 2= rarely needed 3= Sometimes needed 4= Often needed 5=Always needed

English Language skills	Activities	1	2	3	4	5
Reading skills	Q1A)Reading textbooks					
	Q1B)Reading course handouts					
	Q1C)Reading instructions for assignments					
	Q1D)Reading study notes					
	Q1E)Reading instructions for labs					
	Q1F)Reading test and exam questions					
	Q1G)Reading newspapers, magazines					
	Q1H)Reading manual guides					
	Q1I)Others (please specify)----- -----					
Writing skills	Q1J)writing notes from lecture notes					
	Q1K)writing note from the course books					
	Q1L) Writing project reports/term papers					
	Q1M)Writing lab/field repots					
	Q1N)Writing summaries					
	Q1O) Writing personal letters					
	Q1P) writing business letters or job application letters					

	Q1Q)Writing paragraphs or essays on variety of issues					
	Q1R)Writing research papers					
	Q1S)Others(please specify----- -----					
Speaking skills	Q1T)Asking and answering question in class					
	Q1U)Participating in class discussion					
	Q1V)Giving a presentation					
	Q1W)Introducing yourself and others in different situations					
	Q1X)Stating opinion or ideas in a variety of topics in the class					
	Q1Y)Making request to obtain different information					
	Q1Z)Making telephone call					
	Q1Z1)Others(please specify----- -----					
Listening skills	Q1Z2)Listening to lecture					
	Q1Z3)Listening to class discussion					
	Q1Z4)Listening to radio, TV programs or films about health sciences					
	Q1Z5)Listening to instructions and explanations in labs					
	Q1Z6)Others(please specify----- -----					

Part Three: Information about your English Language needs for your professional career

2. How often do you think the following English language skills are needed to do activities in your future professional activities? Please rank each activity according to frequency of needs. Put a tick (√) marks in column of numbers (1-5) of your choice for each activities. Use the following key.

1= never needed 2= rarely needed 3= Sometimes needed 4= Often needed 5=Always needed

English Language	Activities	1	2	3	4	5
Reading skills	Q2A)Reading instructions(drug use leaflets, physician decision) in English					
	Q2B)Reading medical books, articles, magazines, etc.					
	Q2C)Reading graphs, charts and tables					
	Q2D)Translating English medical or health information to their own language					
	Q2E)Reading prescribed drugs and all activities after the surgery are written					
	Q2F)Others(please specify) ----- -----					
Writing skills	Q2G)Writing referral letters in English					
	Q2H)Writing project proposal or research in English					
	Q2I)Writing reports(case reports, patient care and follow-up reports) in English					
	Q2J) Writing forms (prescriptions, vital signs, admission, discharge summaries, etc.)					
	Q2K)Others(please specify) ----- -----					
Speaking skills	Q2L)Attending medical meeting /conference					
	Q2M)Communicating with colleagues in English					
	Q2N)Communicating with patients in English					
	Q2O)Communicating with patients' care taker					
	Q2P)Speaking about medical related topics in English					
	Q2Q)making presentations at seminars and conferences					
	Q2R)Others(please specify) ----- -----					
Listening skills	Q2S)Listening at meetings, seminars or conferences					
	Q2T)Listening to patients					
	Q2U)Listening to foreigners					
	Q2V)Listening to colleagues					
	Q2W)Listening to presentation					
	Q2X)Others(please specify) ----- -----					

Part four: Information about your English Language learning preferences

3. The following questions are aimed to identify your wants about learning English at Health Science College at Samara University. Please indicate to what extent do you agree or disagree with each statement. Put a tick (√) marks in column of numbers (1-5) of your choice for each activities. Use the following keys.

1= Strongly Disagree 2= Disagree 3= Undecided 4= Agree 5=Strongly Agree

No.	Activities	1	2	3	4	5
Q1A	I like English for medical purposes than general English					
Q1B	I like Technical vocabularies(Vocabulary taken from health science/ medical field)					
Q1C	I prefer if the activities in English language skills course materials is relevant to the health science field					
Q1D	I want to learn English to help me in my academic study					
Q1E	I want to learn English to be successful in my health profession					
Q1F	I want to learn English to enjoy English culture					
Q1G	I want to learn English just to obtain my degree					
Q1H	I want to learn English because I enjoy learning it					
Q1I	I like topics, activities and contents concerning health science to be included in English language skills courses					
Q1J	I like health science vocabulary to be included in the English language skills courses					
Q1K	I like general vocabulary to be included in the English language skills courses materials					
Q1L	Others(please specify) ----- ----- -----					

Part Five: Information about The relevance of English Language course contents for your field of study.

4. The following questions are aimed to identify your opinion on the relevance of English course contents to your fields of study. Please indicate to what extent do you agree or disagree with each statement. Put a tick (√) marks in column of numbers (1-5) of your choice for each activities. Use the following key.

1= Strongly Disagree 2= Disagree 3= Undecided 4= Agree 5=Strongly Agree

No.	Items	1	2	3	4	5
Q1A	The course contents had met my language needs to function satisfactorily in my academic studies					
Q1B	The course can meet my language needs to function satisfactorily in my future career					
Q1C	English classes are relevant to my needs					
Q1D	The courses have helped me to know the contents/ topics of my major courses					
Q1E	The courses helped me to master the kind of vocabulary of my fields of study					
Q1F	The courses have helped me improve language skills that helps me to do tasks/ activities in my major subject area courses					
Q1G	The time assigned for the course is sufficient					
Q1H	The contents of the courses were below my English language level					
Q1I	The assessment procedures used in the course were appropriate to me					
Q1J	The reading sections are purposeful for my field of study					
Q1K	The courses show me that I am learning English to do what I want to do in my field of study					
Q1L	Others(please specify) ----- ----- -----					

Appendix D: BPT TOEFL Test

Department of Foreign Language and Literature

English Language Test

Name: _____

Department: _____

Year: _____

Part 1: Listening Comprehension

This section tests your ability to comprehend spoken English. It is divided into three parts, each with its own directions. You are not permitted to turn the page during the reading of the directions or to take notes at any time.

Part A

Directions: Each item in this part consists of a brief conversation involving two speakers. Following each conversations, a third voice will ask a question. You will hear the conversations and questions only once, and they will not be written out.

When you have heard each conversation and question, read the four answer choices and select the one-(A), (B), (C), or (D)- that best answers the question based on what is directly stated or on what can be inferred. Then fill in the space on your answer sheet that matches the letter of the answer that you have selected.

1. (A) She doesn't have an appointment. (B) Her problem is complicated
(C) She must live somewhere else. (D) Her apartment isn't far away.
2. (A) She can use his phone if she wants. (B) There is no charge for phone calls
(C) His phone is out of order too. (D) She can call him later if she likes.
3. (A) He couldn't find it. (B) It was too hard to solve.
(C) It was simpler than he'd thought. (D) He solved it even though it was hard.

4. (A) He cleaned up after cooking. (B) He forgot to put the pots and pans away.
(C) He was out in a terrible storm. (D) He put some plants in the kitchen.
5. (A) He studied forestry in school. (B) He worked in a forest.
(C) He read a lot of books about trees. (D) His father taught him.
6. (A) How many pages he must write. (B) What Professor Barclay discussed.
(C) How long the class lasted. (D) When the paper is due.
7. (A) She doesn't like any music except classical.
(B) There is some classical music she doesn't like.
(C) She likes classical music, but she can't play it.
(D) Classical music doesn't interest her at all
8. (A) He was too busy to take it. (B) He did well on it.
(C) He left some questions unanswered on it. (D) He took it two times.
9. (A) breaking the glass. (B) Warming the lid. (C) Hitting the lid. (D) Filling the jar.
10. (A) It was too expensive. (B) She bought it at the shop next door.
(C) It was given to her as a gift. (D) She paid very little for it.
11. (A) She doesn't want to discuss the traffic. (B) She didn't have to go downtown today.
(C) She was in the traffic herself. (D) She thinks the traffic was better today.
12. (A) the classes aren't interesting. (B) Classes have been canceled
(C) The weather is pleasant. (D) It isn't very sunny today.
13. (A) Gary doesn't need an audio player. (B) She wants her audio player back.
(C) She's glad Gary is finally here. (D) Gary can keep her audio player.

14. (A) Stay inside and read it. (B) Look in it for advertisements for umbrellas.
(C) Cover her head with it. (D) Throw it away.
15. (A) She originally supported Margaret. (B) She can no longer support Ed.
(C) Ed has dropped out of the race. (D) She's not interested in the election.
16. (A) She and her brother painted the apartment. (B) Her brother owes her some money.
(C) Her brother painted the apartment by himself. (D) She painted her brother's apartment.
17. (A) Give him a map. (B) Cut his hair for him.
(C) Drive him to the lake. (D) Show him another route.
18. (A) Hanging it. (B) Buying it. (C) Painting it. (D) Framing it.
19. (A) Borrow Stephanie's computer. (B) Buy her own computer.
(C) Save some money. (D) Stay home and complete her assignment.
20. (A) He doesn't need to practice anymore. (B) His team has won a lot of games.
(C) He doesn't want to play volleyball. (D) His team needs to improve.
21. (A) She seems to be feeling better. (B) She has quite an imagination.
(C) She takes beautiful pictures. (D) She's too sick to go out.
22. (A) Lou has been here once before. (B) They'll start when Lou arrives.
(C) Lou has already started. (D) Everyone is getting hungry.
23. (A) She thinks they're reasonably priced.
(B) She doesn't like them at all.
(C) She'd buy them if she had enough money.
(D) She doesn't need them, but she still likes them

24. (A) To improve his game quickly. (B) To take more lessons.
(C) To train with a professional. (D) To teach people to play tennis.
25. (A) Wrap the present. (B) Play a game. (C) Point out a problem. (D) End the discussion.
26. (A) He wants to buy some books. (B) Two of the books are the same.
(C) He needs some matches. (D) The couple is a good match.
27. (A) Neither street goes downtown. (B) California Street is better than Oak Street.
(C) There's not enough time to go downtown. (D) He can take either street.
28. (A) It was hard to hear. (B) It wasn't true. (C) It was surprising. (D) It wasn't very interesting.
29. (A) The handle on the suitcase is broken. (B) His hands are already full.
(C) The luggage is too heavy for him. (D) He'll be happy to help.
30. (A) She had to prepare for an exam. (B) She'd passed the physics test.
(C) She was going camping. (D) She'd dropped the physics class.

Part B

Directions: This part of the test consists of extended conversations between two speakers. After each of these conversations, there are numbers of questions. You will hear each conversation and question only once, and the questions are not written out.

When you have heard the questions, read the four answer choices and select the one—(A), (B), (C), or (D)—that best answers the questions based on what is directly stated or on what can be inferred. Then fill the space on your answer sheet that matches the letter of the answer that you have selected.

31. (A) They are both studying social anthropology.
(B) Both of them are going to the museum on Saturday.
(C) They both have the same teacher.
(D) Both of them have studied anthropology before.
32. (A) In the morning. (B) In the afternoon. (C) In the evening. (D) Only on Saturdays.
33. (A) Relationships between parents and children. (B) The tools used by ancient people.
(C) Leadership in contemporary society. (D) Marriage customs.
34. (A) He found it uninteresting. (B) He found it useful.
(C) He found it fascinating. (D) He found it difficult.
35. (A) At a university. (B) At a television station. (C) At a newspaper office. (D) At a hospital.
36. (A) He needs a well-paying position. (B) He was told to by a professor.
(C) He wants the experience. (D) He recently lost another job.
37. (A) Drama. (B) Journalism. (C) Telecommunications. (D) History.
38. (A) Talk to Ms. Wagner. (B) Drop a class. (C) Change his major. (D) Complete a form.

Part C

Directions: This part of the test consists of several talks by a single speakers. After each of these talks, there are numbers of questions. You will hear each talk and question only once, and the questions are not written out.

When you have heard the questions, read the four answer choices and select the one—(A), (B), (C), or (D)—that best answers the questions based on what is directly stated or on what can be inferred. Then fill the space on your answer sheet that matches the letter of the answer that you have selected.

39. (A) A football game. (B) Jet transportation.

Part 2: Structure and Written Expression

Time: 25 minutes

This section tests your ability to recognize grammar and usage suitable for standard written English. This section is divided into two parts, each with its own directions.

Structure

Directions: Items in this part are incomplete sentences. Following each of these sentences, there are four words or phrases. You should select the one word or phrase-(A), (B), (C), or (D)-that best completes the sentence. Then fill in the space on your answer sheet that matches the letter of the answer that you have selected

1. Sharp knives are actually safer to use _____
(A) as dull ones (B) as ones that are dull (C) than dull ones (D) that are dull ones
2. Daniel Webster, Thaddeus Stevens, and many others _____ prominent in public life began their careers by teaching school.
(A) they became (B) once they became (C) became (D) who became
3. As coal mines became deeper, the problems of draining water, bringing in fresh air, and _____ to the surface increased.
(A) transporting ore (B) to transport ore (C) how ore is transported (D) ore is transporting
4. _____ because of the complexity of his writing, Henry James never became a popular writer, but his works are admired by critics and other writers.
(A) It may be (B) Perhaps (C) Besides (D) Why is it
5. Piedmont glaciers are formed _____ several valley glaciers join and spread out over a plain.
(A) by (B) when (C) from (D) that
6. As late as 1890, Key West, with a population of 18,000, _____ Florida's largest city

(A) that was (B) to be (C) was (D) it was

7. A mastery of calculus depends on _____ of algebra.

(A) an understanding (B) is understood (C) to understand (D) understand

8. _____ he was not a musician himself, Lawrence Hammond developed an electronic keyboard instrument called the Hammond organ.

(A) Although (B) That (C) Despite (D) For

9. Agnes De Mille's landmark musical play Oklahoma! was _____ of story, music, and dance.

(A) Successfully combined (B) a successful combination

(C) to combine successfully (D) successful combining

10. _____ single dialect of American English has ever become dominant.

(A) No (B) Not only a (C) Not (D) Nor a

11. In 1837 the University of Michigan became the first state university _____ by a board of regents elected by the voters of the state.

(A) under the control (B) it was controlled (C) being controlled (D) to be controlled

12. Indoor heating systems have made _____ for people to live and work comfortably in temperate climates.

(A) it is possible (B) possible (C) it possible (D) possibly

13. Certain fish eggs contain droplets of oil, _____ to float on the surface of the water.

(A) allowing them (B) allows them (C) they are allowed (D) this allows them

14. Considered America's first great architect, _____.

(A) Many of the buildings at Harvard University were designed by Henry Hobson Richardson

(B) Henry Hobson Richardson designed many of the buildings at Harvard University

(C) Harvard University has many buildings that were designed by Henry Hobson Richardson

(D) It was Henry Hobson Richardson who designed many of the buildings at Harvard University

15. _____ is caused by a virus was not known until 1911.

- (A) That measles (B) As measles (C) Measles (D) What Measles if measles

Written Expression

Directions: The items in this part have four underlined words or phrases, (A), (B), (C), and (D), you must identify the one underlined expression that must be changed for the sentence to be correct. Then find the number of the question on your answer sheet and fill the space corresponding to the letter.

16. Ceramics can be harder, $\frac{\textit{light}}{A}$, and more $\frac{\textit{resistant}}{B}$ to $\frac{\textit{heat}}{C}$ than $\frac{\textit{metals}}{D}$.
17. $\frac{\textit{Not everyone}}{A}$ realizes $\frac{\textit{that}}{B}$ the $\frac{\textit{most largest}}{C}$ organ of the $\frac{\textit{human}}{D}$ body is skin.
18. Mold is $\frac{\textit{Extremely}}{A}$ $\frac{\textit{destruction}}{B}$ to the $\frac{\textit{books}}{C}$ in a $\frac{\textit{a library}}{D}$
19. Sidney Lanier $\frac{\textit{Achieved}}{A}$ fame both $\frac{\textit{as}}{B}$ poet or as a symphony $\frac{\textit{musician}}{D}$
20. The $\frac{\textit{horses}}{A}$ used $\frac{\textit{play}}{B}$ polo are not of any $\frac{\textit{special}}{C}$ breed or of any $\frac{\textit{definite}}{D}$ size.
21. A tapestry $\frac{\textit{consists}}{A}$ of a foundation weave, called the warp, $\frac{\textit{which accross}}{B}$ are passes different $\frac{\textit{colored}}{C}$ threads, called the weft, forming decorative $\frac{\textit{patterns}}{D}$
22. The $\frac{\textit{works}}{A}$ of early American woodcarvers had $\frac{\textit{many}}{B}$ artistic qualities, but these craftsmen probably $\frac{\textit{did not}}{C}$ think of $\frac{\textit{them}}{D}$ as artists.
23. Perhaps mankind's $\frac{\textit{first}}{A}$ important $\frac{\textit{musical}}{B}$ influence $\frac{\textit{were}}{C}$ the songs of $\frac{\textit{birds}}{D}$.
24. The techniques of science and $\frac{\textit{magic}}{A}$ are quite $\frac{\textit{different}}{B}$, but their basic aims- $\frac{\textit{to understand}}{C}$ and control nature- $\frac{\textit{they are}}{D}$ very similar.
25. It was in a cave near Magdalena, New Mexico, $\frac{\textit{when}}{A}$ the $\frac{\textit{oldest}}{B}$ $\frac{\textit{known}}{C}$ ears of cultivated corn were $\frac{\textit{discovered}}{D}$
26. The fossil remains of $\frac{\textit{much}}{A}$ extinct $\frac{\textit{mammals}}{B}$ have been $\frac{\textit{found}}{C}$ in the tar pits at Rancho La Brea $\frac{\textit{in}}{D}$ Los Angeles.

27. Sharks $\frac{\text{cann detect}}{A}$ minute $\frac{\text{electrical}}{B}$ discharges $\frac{\text{coming}}{C}$ from $\frac{\text{its}}{D}$ prey.
28. A dark nebula consists of $\frac{\text{a cloud}}{A}$ of interstellar dust $\frac{\text{enough dense}}{B}$ $\frac{\text{to obscure}}{C}$ the stars $\frac{\text{beyond}}{D}$ it.
29. $\frac{\text{commercially}}{A}$ honey is heated and $\frac{\text{filtered}}{B}$ in order to $\frac{\text{stabilize}}{C}$ and clarify $\frac{\text{it}}{D}$.
30. The $\frac{\text{various}}{A}$ parts of the body require $\frac{\text{so}}{B}$ different $\frac{\text{surgical}}{C}$ skills that $\frac{\text{many}}{D}$ surgical specialties have developed.
31. One reason birds $\frac{\text{have been}}{A}$ so successful is $\frac{\text{because}}{B}$ of their $\frac{\text{able}}{C}$ to escape from danger $\frac{\text{quickly}}{D}$.
32. The $\frac{\text{wood}}{A}$ of the rosewood tree $\frac{\text{is used}}{B}$ to $\frac{\text{do}}{C}$ fine $\frac{\text{musical}}{D}$ instruments.
33. Chemical engineering is based $\frac{\text{on}}{A}$ the $\frac{\text{principles}}{B}$ of physics, $\frac{\text{chemists}}{C}$ and $\frac{\text{mathematics}}{D}$.
34. Baller performers $\frac{\text{must be}}{A}$ believable $\frac{\text{actors}}{B}$ and actresses $\frac{\text{as well}}{C}$ as $\frac{\text{experst}}{D}$ dancers.
35. Venus, $\frac{\text{the second}}{A}$ planet $\frac{\text{from}}{B}$ the Sun, is $\frac{\text{excatly almost}}{C}$ the $\frac{\text{same size as}}{D}$ the Earth.
36. P.T. Barnum opened $\frac{\text{his own}}{A}$ circus in 1871 and $\frac{\text{become}}{B}$ the $\frac{\text{most famous}}{C}$ show man of his $\frac{\text{time}}{D}$.
37. The way a child $\frac{\text{play witth}}{A}$ other children reveals $\frac{\text{a lots}}{B}$ about $\frac{\text{teh child's}}{C}$ emotional $\frac{\text{development}}{D}$.
38. Sheep $\frac{\text{have been}}{A}$ $\frac{\text{demesticated}}{B}$ for $\frac{\text{over}}{C}$ 500 $\frac{\text{years ago}}{D}$.
39. Chemical compounds $\frac{\text{with}}{A}$ barium, cobalt, and strontium $\frac{\text{are}}{B}$ responsible $\frac{\text{to}}{C}$ many of the vivid $\frac{\text{colors}}{D}$ in fireworks.
40. Duke University in North Carolina $\frac{\text{has}}{A}$ an outstanding $\frac{\text{collecting}}{B}$ of documents $\frac{\text{concerning}}{C}$ Southern $\frac{\text{history}}{D}$.

Part 3: Reading Comprehension

Time: 55 Minutes

This section of the test measures your ability to comprehend written materials.

Directions: This section contains several passages, each followed by a number of questions. Read the passages and, for each question, choose the one best answer (A), (B), (C), or (D) based on what is stated in the passage or on what can be inferred from the passage. Then fill in the space on your answer sheet that matches the letter of the answer that you have selected.

Questions 1—11

The sun today is a yellow dwarf star. It is **fueled** by thermonuclear reactions near its center that convert hydrogen to helium. The sun has existed in its present **state** for about four billion, 600 million years and is thousands of times larger than the Earth.

By studying other stars, astronomers can predict what the rest of the sun's life will be like. About 5 billion years from now, the core of the sun will shrink and become hotter. The surface temperature will fall. The highest temperature of the center will increase the rate of thermonuclear reactions. The outer region of the sun will expand approximately 35 million miles, about the distance to mercury, which is the closest planet to the sun. The sun will then be a red giant star. Temperatures on the Earth will become too hot for life to exist.

Once the sun has used up its thermonuclear energy as a red giant, it will begin to shrink. After it shrinks to the size of the Earth, it will become a white dwarf star. The sun may **throw off** huge amounts of gases in violent eruptions called nova explosions as it changes from a red giant to a white dwarf.

After billions of years as a white dwarf, the Sun will have used up all its fuel and will have lost its heat. Such a star is called a black dwarf, the Earth will be dark and cold. If any atmosphere remains **there**, it will have frozen onto the Earth's surface.

1. What is the primary purpose of this passage?
 - A) To alert people to the dangers posed by the sun
 - B) To discuss conditions on Earth in the far future
 - C) To present a theory about red giant stars
 - D) To describe changes that the Sun will go through
2. The word “**fueled**” in line 1 is closest in meaning to

A) Powered	C) Created
B) Bombarded	D) Propelled
3. The word “**state**” in line 2 is closest in meaning to

A. Shape	C. Location
B. Condition	D. Size
4. It can be inferred from the passage that the Sun
 - A) Is approximately halfway through its life as a yellow dwarf
 - B) Has been in existence for 10 billion years
 - C) Is rapidly changing in size and brightness
 - D) Will continue as a yellow dwarf for another 10 billion years
5. What will probably be the first stage of change as the Sun becomes a red giant?
 - A) Its core will cool off and use less fuel.
 - B) Its surface will become hotter and shrink.
 - C) It will throw off huge amounts of gases.
 - D) Its center will grow smaller and hotter.
6. When the Sun becomes a red giant, what will conditions be like on Earth?
 - A) Its atmosphere will freeze and become solid.
 - B) It will be enveloped in the expanding surface of the sun.
 - C) It will become too hot for life to exist.
 - D) It will be nearly destroyed by nova explosions.
7. As a white dwarf, the Sun will be
 - A) The same size as the planet Mercury
 - B) Thousands of times smaller than it is today
 - C) Around 35 million miles in diameter
 - D) cold and dark

8. According to the passage, which of the following best describes the sequence of stage that the Sun will probably pass through?
- A. Yellow dwarf, white dwarf, red giant, black giant
 - B. Red giant, white dwarf, red dwarf, nova explosion
 - C. Yellow dwarf, red giant, white dwarf, black dwarf
 - D. White dwarf, red giant, black dwarf, yellow dwarf
9. The phrase “**throw off**” in line 11 is closest in meaning to
- A. eject
 - B. burn up
 - C. convert
 - D. let in
10. the word “**there**” in line 16 refers to
- A. our own planet
 - B. the outer surface of the Sun
 - C. the core of a black dwarf
 - D. the planet Mercury
11. Which of the following best describes the tone of the passage?
- A. Alarmed
 - B. Pessimistic
 - C. Comic
 - D. Objective

It is said that George Washington was one of the first to realize how important the building of canals would be to the nation’s development. In fact, before he became President, he headed the first company in the United States to build a canal which was to connect the Ohio and Potomac rivers. It was never completed, but it showed the nation the **feasibility** of canals. As the country expanded westward, settlers in western New York, Pennsylvania, and Ohio needed a means to ship goods. Canals linking natural waterways seemed to offer an effective solution.

In 1791 engineers commissioned by the state of New York investigated the possibility of a canal between Albany on the Hudson River and Buffalo on Lake Erie, which would link the Great Lakes area with the Atlantic seacoast. It would avoid the mountains that served as a barrier to canals from the Delaware and Potomac rivers.

The first attempt to dig the canal, to be called the Erie Canal, was made by private companies but only a **comparatively** small portion was built before the project was halted for lack of funds. The cost of the project was an estimated five million dollars, an enormous amount for those days.

There was some **on-again-off-again** Federal funding, but the canal. It was completed in 1825, costing two million dollars more than expected.

The canal rapidly lived up to its sponsors' faith, quickly paying for itself through **tolls**. It was far more economical than any other form of transportation at the time. It permitted trade between the Great Lake region and East Coast, robbing the Mississippi River of much of its traffic. It allowed New York to supplant Boston, Philadelphia, and other Eastern cities as the chief center of both domestic and foreign commerce. Cities sprang up along the canal. It also contributed in a number of ways to the North's victory over the South in the Civil War.

An expansion of the canal was planned in 1849. Increased traffic would undoubtedly have **warranted** its construction had it not been for the development of the railroads.

12. Why does the author most likely mention George Washington in the first paragraph?
- A) He was President at the time the Erie Canal was built.
 - B) He was involved in pioneering efforts to build canals.
 - C) He successfully opened the first canal in the United States.
 - D) He commissioned engineers to study the possibility of building the Erie Canal.
13. The word "**feasibility**" in line 4 is closest in meaning to
- A. profitability
 - B. difficulty
 - C. possibility
 - D. capability
14. According to the passage, the Erie Canal connected the
- A. Potomac and Ohio rivers
 - B. Hudson River and Lake Erie
 - C) Delaware and Potomac rivers
 - D) Atlantic Ocean and the Hudson River
15. Which of the following is closest in meaning to the word "**comparatively**" in line 12?
- A. Relatively
 - B. Contrarily
 - C. Incredibly
 - D. Considerably
16. The phrase "**on-again-off-again**" in line 14 could be replaced by which of the following with the least change in meaning?
- A. Intermittent
 - B. Unsolicited
 - C. Ineffectual
 - D. Gradual
17. The completion of the Erie Canal was financed by
- A. the state of New York
 - B. private companies

- C. the federal government
D. DeWitt Clinton
18. The actual cost of building the Erie Canal was
A) five million dollars
B) less than had been estimated
C) seven million dollars
D) more than could be rapid
19. The word “tolls” in line 16 is closest in meaning to which of the following?
A. Jobs
B. Grants
C. Links
D. Fees
20. Which of the following is NOT given in the fourth paragraph as an effect of the building of the Erie Canal?
A. It allowed the East Coast to trade with the Great Lakes area.
B. It took water traffic away from the Mississippi River.
C. It helped determine the outcome of the Civil War.
D. It established Boston and Philadelphia as the most important centers of trade.
21. What can be inferred about railroads in 1849 from the information in the last paragraph?
A. They were being planned but had not yet been built.
B. They were seriously underdeveloped.
C. They had begun to compete with the Erie Canal for traffic.
D. They were weakened by the expansion of the canal.
22. The word “warranted” in line 23 is closest in meaning to
A. guaranteed
B. justified
C. hastened
D. prevented
23. At what point in passage does the author focus on the beginning of construction of the Erie-Canal?
A. Line 2-4
B. Lines 7-10
C. Lines 11-13
D. Lines 16-17

Question 24-33

It’s a sound you will probably never hear, a sickened tree sending out a distress signal. But a group of scientists has heard the cries, and they think some insects also hear the trees and are drawn to **them** like vultures to a dying animal.

Researchers with the U.S Department of Agriculture’s Forest Service fastened sensors to the bark of **parched** trees and most drought-stricken trees transmit their **plight** in the 50 to 500 kilohertz range. (The unaided human ear and detect no more than 20 kilohertz). Red oak, maple, white pine, and birch all make slightly different sounds in the form of vibrations at the surface of the wood.

The scientists think that the vibrations are created when the water columns inside tubes that run the length of the tree break, a result of too little water flowing through them. These **fractured** columns send out distinctive vibration patterns. Because some Insects communicate at ultrasonic frequencies, they may **pick up** the tree’s vibrations and attack the weakened trees. Researchers are now running tests with potted trees that have been deprived of water to see if the sound is what attracts the insects. “Water stressed trees also smell differently from other trees, and they experience thermal changes, so insects could be responding to something other than sound,” one scientist said.

24. Which of the following is the main topic of the passage?
- A. The vibrations produce by insects
 - B. The mission of the U.S. Forest Service
 - C. The effect of insects on trees
 - D. The sounds made by distressed trees
25. The word “them” in line 3 refers to
- A. trees
 - B. scientists
 - C. insects
 - D. cries
26. The word “parched” in line 5 is closest in meaning to which of the following?
- A. Burned
 - B. Dehydrated
 - C. Recovered
 - D. Fallen
27. The word “plight” in line 5 is closets in meaning to
- A. signal
 - B. condition
 - C. need
 - D. agony
28. It can be inferred from the passage that the sounds produce by the trees
- A) serve as a form of communication with other trees
 - B) are the same no matter what type of tree produces them

homologous structures. They are genetically related in the **sense** that both the forelimb and the wing evolved from the fin.

34. Which of the following best describes the organization of the passage?
- A. A contrast is drawn between two concepts by means of examples.
 - B. A general concept is introduced, examples are given, and a conclusion is offered.
 - C. Two definitions of the same concept are compared.
 - D. Two proposals are suggested and support for both is offered.
35. According to the passage, the concepts of analogy and homology are
- A. Difficult to understand
 - B. easier to understand through examples than through definitions
 - C. impossible to explain
 - D. simple to define but hard to apply
36. The word “rigid” in line 3 is closest in meaning to
- A. inflexible
 - B. ideal
 - C. unnatural
 - D. steep
37. According to the information provided in the passage, which of the following would most probably be considered analogous?
- A. A shark’s fin and a tiger’s claws
 - B. A man’s arms and a bird’s wings
 - C. A monkey’s tail and an elephant’s tail
 - D. A spider’s legs and a horse’s legs
38. According to the passage, one way in which homologous organs differ from analogous organs is that they
- A. are genetically related
 - B. are only found in highly developed animals
 - C. perform the same general functions
 - D. come from different embryological structures
39. As used throughout the passage, the term “structures” most nearly means
- A. buildings
 - B. features of an animal’s anatomy
 - C. organizational principles
 - D. units of grammar
40. the word “sense” in line 9 is closest in meaning to

A. feeling

C. meaning

B. logic

D. perception

41. Where in the passage does the author first focus his discussion on the concept of homology?

A. Lines 1-3

C. Lines 6-9

B. Lines 4-6

D. Lines 9-10

Questions 42-50

Probably the most famous film commenting on twentieth century technology is *Modern Times*, made in 1936. Charlie Chaplin was motivated to make the film by a reporter who, while interviewing him, happened to describe working conditions in industrial Detroit. Chaplin was told that healthy young farm boys were lured to the city to work on automotive assembly lines. Within four or five years, these young men's health was destroyed by the stress of work in the factories.

The film opens with a shot of a mass of sheep making their way down a crowded ramp. **Abruptly** the scene shifts to a scene of factory workers jostling one another on their way to a factory. However, the rather bitter note of criticism in the implied comparison is not sustained. It is replaced by a gentler note of satire. Chaplin prefers to entertain rather than lecture.

Scenes of factory interiors account for only about one-third of the footage of *Modern Times*, but they contain some of the most pointed social commentary as well as the most comic situations. No one who has seen the fast-moving conveyor belt, almost **losing his mind** in the process. Another popular scene involves an automatic feeding machine brought to the assembly line so that workers need not interrupt their labor to eat. The feeding machine malfunctions, hurling food at Chaplin, who is strapped into his position on the assembly line and cannot escape. **This** serves to illustrate people's **utter** helplessness in the face of machines that are meant to serve their basic needs.

Clearly, *Modern Times* has its faults, but it remains the best film treating technology within a social context. It does not offer a radical social message, but it does accurately reflect the sentiments of many who feel they are victims of an over-mechanized world.

42. The author's main purpose in writing this passage is to

A. criticize the factory system of the 1930's

- B. analyze an important film
 - C. explain Chaplin’s style of acting
 - D. discuss how film reveals the benefits of technology
43. According to the passage, Chaplin got the idea for the film *Modern Times* from
- A. a newspaper article
 - B. a scene in a movie
 - C. a job he had once held
 - D. a conversation with a reporter
44. The word “abruptly” in line 8 is closest in meaning to
- A. suddenly
 - B. mysteriously
 - C. finally
 - D. predictably
45. It can be inferred from the passage that two-thirds of the film *Modern Times*
- A. is completely unforgettable
 - B. takes place outside a factory
 - C. is more critical than the other third
 - D. entertains the audience more than the other third
46. Which of the following could best replace the phrase “losing his mind” in line 12-13?
- A. Getting fired
 - B. Dong his job
 - C. Going insane
 - D. Falling behind
47. The word “This” in line 16 refers to which of the following?
- A. The machine
 - B. The food
 - C. The assembly line
 - D. The scene
48. According to the passage, the purpose of the scene involving the feeding machine is to show people’s
- A. Ingenuity
 - B. adaptability
 - C. helplessness
 - D. independence
49. The word “utter” in line 17 is closest in meaning to which of the following?
- A. Notable
 - B. Complete
 - C. Regrettable
 - D. Necessary
50. The author would probably be LEAST likely to use which of the following words to describe the film *Modern Times*?
- A. Revolutionary
 - B. Entertaining
 - C. Memorable
 - D. Satirical

Name _____

Department _____ Year _____

Writing

Some people say that university students should concentrate on their own field of study, and that all the classes they take should be closely related to that subject. Others believe that university students should get a general education, taking classes in many fields before concentrating on a single field. Discuss both points of view, using concrete examples. Which view do you support? Give reasons for your choice.

NOTES: Use the space for essay notes only. Write the final version of your essay on the next blank spaces.

Appendix –E: Students’ interview schedule

1. What were your expectations of communicative English language skills courses?
Expectations of contents such as reading texts, Vocabulary, grammar, speaking, listening or writing in terms of addressing their academic needs
2. What problems or difficulties did you encounter in your academic study due to your ability in using English language?
3. What did you want from the courses?
4. Did you think that the course meet your English language needs? If yes, how? If no, why?
5. How efficient were the courses in addressing your English language needs?
6. How are the tasks, activities, and examples in the course materials match with your field of study?
7. Would you tell me what you like and do not like about the current communicative English language skills course materials?
8. Do you believe that your university has created favorable environment which considers the enhancement of you English language learning? Why?

Would you like to comment or add anything?

Appendix-F: ELT (Communicative English Language Skills Course) instructors' Interview Schedule

1. Do you think that English is important to your student in their academic studies? Why?
 2. Do you think that English is important to your student in their future professional careers? Why?
 3. What problems of English Language do you think your students had while doing activities in English language skills' courses?
 4. Do you think that the contents of the course are relevant to the students' level?
 5. Are the tasks, activities, and examples in the course relevant to the students' field of study? If yes/ no, why?
 6. Do you think that the courses help to enhance the students' communication abilities in their academic progress and future professions? If yes/ no, why?
 7. How do you find the students' interest in the courses (Communicative English language skills I and Communicative English language skills II)? Why?
 8. Would you tell me what you like and do not like about the current communicative English language skills course materials?
 9. What measures should be taken to improve the courses so as to make it effective and relevant to health sciences students' needs?
- Would you like to comment or add anything?

Appendix- G: Major subject area Course Instructors' Interview Schedule

1. Do you think that English is important to your students in their academic studies and professional careers? Why?
2. What English language (general English/medical English) do you perceive your students need to pursue their academic study and professional careers?
3. How satisfied are you with the English language proficiency level of your students? Why?
4. What problems of English Language do you think your students have while doing activities in their field of studies?
5. What kind of language problems do they have?
6. From your experiences of teaching major subject area courses, what do your student do with English language?

Would you like to comment or add anything?

Appendix- H: Health practitioners' Interview schedule

1. From your work experience, do you think that English is important in your day to day professional activities? Why?
2. Do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital? How?
3. How often do you use English in your professional career?
4. Do you think that having a fluent command of English language is important to be successful in health profession? If no, why? If yes, how?
5. What do you do with English in your professional career?
6. Which English language skills do you use mostly in your professional activities?
(Listening, speaking, reading and writing)
7. What problem do you or other colleagues encounter while using English at your work place?
8. Which English language courses did you take as a student in University or college? Are they helping you in your current profession? If no, why? If yes, how?
9. What measures do you think should be taken to improve health professionals' English language skills to be effective and efficient in their professional career?

Would you like to comment or add anything?

Appendix-I: Sample transcription of subject area classroom observation

Observation One

Subject: Gynecology

Dept.: PHO

Year: four

Date: 06/12/ 2021

Code of instructor: Inst. 1

The researcher entered the class before the instructor by the instructor's consent. Then, sat at the front of the class on the free table near the corner at door side and started observation as follow.

The instructor came to the class carrying CDM in baggage, his laptop and markers on his hand. He put down on the table and took out CDM from the baggage and the connected to his laptop. Then. Opened the PowerPoint, greeted students, glanced all the class shaking his hands. Then, introduced the previous lesson. He summarized that in previous week they had learned antenatal care model WHO recommends. They had seen than four visits are recommended. They are first visit at 16wks, second visit is planned 24-28wks, third visit at 30-32wks and fourth visit at 36-40wks. Then, continued the classroom lecture as follows.

Inst.1: Firsit vist weeks 'lay min bilenal? Determination of gestational age, medical status of the mother eee..nutritional supplement' ina' care provision like malaria prophylaxixis,eee..Iron supplement and immunization with tetanus toxoid bilenal. 'Be' second visit 'degimo' wanegna sira mindi new? Hypertension, multiple gestation, anemia, 'ina' DM and RH sensitization 'mekotater new bilenal'. Further information are 'yet new yemitiweligiwu, indet new yemitiweligiwu, mina min... mina min im...

'Lelaw' fourth visit at 36 'new'. 'Iziga' wanegna' screening for hypertension, antepartum hemorrhage 'ina' multiple gestation 'new'. Multiple gestation focused 'new' based 'new'?

Focused 'new ayidele'? The other is..., so these are the fourt visit at 36 weeks ... hypertensive, any antepartum hemorrhage...eee. Bleeding 'kalat' you have to check multiple gestation, presentation. 'Lemindinew presentation lay focus yeminaregew sibali' cephalic presetation kalihone, breach 'minamin kehone adegna' new to treat ' huleteгна' decision nachin lemawek. '

Gilts new ayidele?'Breach presentation 'kehone iske mecheresh mindi new? Ces 'new ayidele'? By the way 36 weeks lay preach presentation ayimetam bizu gize' 37, 38 new lawer yemiyaregew wayim extra manualization lay temitayew..., so health promotion finally prepares birth plan. Silezih 38 gnawu yemecheresha week tebilo yitebekel. 'gilts new ayidele? Gin be 37 Ina 38 mehakel yimetal bilen memiker new. 'Silezih kezih bohala term new 'kerachin tesktowal mallet new. Kezih bohala term new. Kezih bohala yemitebekew labour new ina metenkek yalebin post term indat hone male new. So, health promotion balanced diet new. Balanced diet mindi new? 60% of carbohydrate and 30% of protein and 10% of fat. 'Igna ager lay indesu ayidelem. Balanced diet new. Nutritionsix type of yemigib component temirachewal ayidel? Carbohydrate, protei and iiiii? Fat, vitamine, mineral ina water. Balanced diet mindi new inezihin sidistun yatekalel new. Kindim indalkuachiwu as a major elements of migibachin manew? Carbohydrate 50 -60 malet new. Belelawalem indeza mehon alebet new yemilut gin began ager indezih balanced diet silemayinor new.

Avoidance of drugs contra indication of drugs kidim yawerawut A, B, C iske D, X teblo new yemikefelut mallet new. Avoidance of alcohol. Alcohoal besical minyaregal IUGI (intera utrain...) gilts new ayidele liju kechacha hone retarded lihon yichilal . Smoking is closures of mecheresh lay lib yemiseraw siyalekis new yidele yemiseraw? . ke lib yemimetaw xikur closing smoking betam yemiyachesew closurun yabisal in liju ye lib tamam new yemihonew. The other adequet rest. Safe sex during pregnancy ... safe sex yemibal ale. Danger symptoms of pregnany Bfor after deliver. Any pregnancy lay anycontact yi...

The other is health promotion or care provider such ss individuasl deliver plan, ferrous sulphate prophylaxis, TT immunization. Any pregnancy any contact yinoral aayidele ert lay tetanus yet yemigegn yimeslachewl?

Ss: Afer wust

Inst.1: Any eee...any outside lay yale min yametal? Ahun adis neger koretagn minami yilal sew iii... acuared yemiyaregew any koshasha wust new bebizat. Tikikilegnawu neger disperse nachew air lay. Mininew beza kedada...koshasha neger gin.. ke bizu neger gin yiyizal mallet new. Afer bicha sayihone any laceration lay yigegnal. Conceptu mind new tetanus every place lay disturbed hono yigegnal mallet new. Silezih during deliver placenta minamin ale ayidele for

ceps minamin u..m gin isu sterilized new teblo yitasebal gin cauzu silemaytawek tetanes abstatics yatekal teblo silemitaseb minisetal? Tetanes yisetal Ayidel? Then the other is ART for HIV women which is PMTCT service. The other is de-worming kidim yalkuwachew a single-dose albendazole that is 400mg with a mitral insetalen mallet new. Mebendazole insetalen. But, Trndazole... Albendazole le teneasis anisetim. Inkuwan le pregnant lenormal sew kebad new.

Ss: Parasitamol ayisetim?

Inst.1: Uu...m the mechanisim of parasitamol parasayitun lemawutat sayihon peristalsis lemekenes new. Peristalses indet new meseleh? Longitudinal ina vertical Muscloch alu. Anjetachin chimik...chimic yaregenal tekam negeru wede liver yemihedewun ... parasitamoli yeparasayitun movement against yaregal. Silezih yebarasitamol mechanisim wed lay wed tach yemihadewun parasayitun wede lay mawutat new min bemadreg pressurun mechemer alebet silezih excessive pressure sinor anjetachin tibik tibik yaregenal sever trump yinorenal mallet new. Parasitamol mawutat new siraw gin albendazole megidel new. Yigelewu ina berasu seat kemot kidim yalkuwachun eee,... Process ayichilim . berasu seat.. gilts new ayidele. Good, the other...i...s daily oral iron and folic acid supplementation with 30 mg to 60 mg of elemental iron and 400µg or 4 mg folic acid is recommended for pregnant women . Folic acid is very important for pregnant women. Tawukalachu biye asibalew. Folic acid is important for prevention of hydrocephalus, maternal anemia, puerperal sepsis, low birth weight and preterm birth. Especially, ' idemewa' ke 32, 33 belay kehone folic acid is very important during pregnancy, even, kemargezowa befit marigez plan sinorat min madireg alebat folic acid mewused mikiniyatun hydro cephalus ina nuro tubal defect lemasweged, spinal befida inezihin negeroch, menengeo cephalus lemasweged. Good, the equivalent of 60 mg of elemental iron is 300mg ferrous sulfate heptahydrate, 180 mg ferrous fumarate or 500 mg of ferrous gluconate. Igna ager yemisetew ke hulet andu new. Folic acid should be commenced as early as possible ideally before conception to prevent neural tube defects. The other is TT vaccine is mindinew? An immunization used to protect woman and fetus from Tetanus. Inatochachinin keahunu inatoch weyim sewoch liyunetachew mindinew bibal, yenatochachin egg wediyau, wediyaw sileweledubet yeneberut 40,000 weyim 400,000 egg new yemikerachew bilen new eminasibew. Silezih, yetewesene yetewesene beyeweru 20, 20, 20 new yemiwetaw. Silezih inatochachin 7, 8

tolo tolo be gize new yemiweldut. Ihe mallet 9 amet Yale manustration koyu mallet new. Gilts new ayidel? Leziya be 49 ametachew yemiweldut. Eggu mindinew? Reserved new gilts new ayidele? Betam bizu beweledish kutir yeminorew yemist teninet bezaw lik new yemibalew leza new. Gilts new ayidele? 30, 34 mewuled yemijemiru setoch gin almost le 20 amet egg abakinowal be manustration.

At least two doses of 0.5 ml of TT vaccine are given intramuscularly into the upper arm. Lemidinew upper arm yeminwegaw?

Ss: Igir kehone... shiatic nerve ligegn yichilal...ee..

Inst.1: easily circulation wusit yigebal. Iseasily serculation wust yigebal. Muscle mass new bemassu sinset tolo serculation yigebal mallet new. Gebtachewal? Huletagnawu ciatic nerve alemesasat new. SCiatic nerve lalemenicat meskel siru. Keza upper outer lay wugu yemibalew lezih new. Ihh..? Ciatic nerve ketewega yigelal. Min aynet nerve damage new yemiyametaw ketewega?

So, hulet dose new mewused yalebat. Silezih TT1 at first contact with women of childbearing age, or as early as possible in the pregnancy. Huletegnawu, at least 4 weeks after TT1. Andegnawu lay kalwesedech huletegnawu lay mesitetina mecheres inchilalen. At least 4 weeks after TT1. The third dose is not important, but after 5 months or 6 months. Hulet dose new mewused yalebat sinil, yemejemeraw protection yelewum. Silezih, be mejemeriya pregnancy 3 wesijalew bila andi set ke metach ayachut sint amet protection alat? Sint amet protection alat? Ihe science, ahun tefenkiteh hideh tetanus sitwega ...ande bitiwega le 3 amet protection new. Remot area lay bitihead yemejemeriya irigizina lay 2 kewesedechilih yemejemeraw ayikoterim sint amet alat mallet new 3 amet ayidele? TT3 at least 6 months after TT2, 5 years protection alat. TT4 at least 1year after TT3 kewesedech 10 years alat. Ina ye mechereshawu TT5 at least 1 year after TT4 kewesedech all childbearing years protection of tetanus adegnech mallet new. Mawek yalebachew yemejemeriyawu contact protection yelewum.

The next mawek yalebachut PMTCT new. Prevention of child mother transmission mindinew ihe wumens with HIV mallet new. Women are more affected than male. Kelal concept new ayidele? Iii...ayidele? 61% of people living with HIV in sabsaharan Africans were wumen. National prevalence 2.3% : female 2.8% and male 1.8%. Addis Ababa lay 8.5% ale. Kezih wust

10.1% female new tabilo yitasebal. 8.5 tu ind meto tewesido mallet new giltsi new ayidele? Prevalence at ANC: 10-12% new. The mallet kemimetut, 10-12% HIV alachew mallet new. Ahun Addisaba andegna honalech ayidel. Ahun temeliso wede huleteгна metowal wede dormant jest indeza yilal. Number of pregnant women living with HIV is 90,311.new. Ethiopia 11gna new, the 1st Nigeria 15% ina south Africa 14% new. lik yegebre siga ginugninet yalachew ageroch nachew inde najeriya ina south Africa. 2gnawa Ethiopia 11gna nat.

Vulnerability of women is biological factors. Risk of HIV transmission for women during unprotected vaginal intercourse is 2times or 4 times higher than for men. Due to semen wediyew Hiv kalebet wede setiyoo yemastelalef chansu high new. Friction silehone setiyowa lay new wediyew yemichemirew.... Ss: Hahahaa. Younger women and oldr women are more susceptible.

Lelaw social and Economic factors new. Power impalances, lack of education, sexual customs and norms, lack of economic opportunities, lack of control in relationships, condom use, and pregnancy, STIs and HIV and HIV and prostitution mallet new. Effect of HIV on pregnancy aand vice Versa.

IUGR, LBW, preterm delivery, spontaneous abortion, stillbirth, prenatal and infant mortality, UTI in pregnancy, Ectopic pregnancy, STD and STI nachew. HIV does not have direct influence on rate of congenital malformation. Indelelochu inde STI, and civils minamin congenital malformation ayametam.

Effects of pregnancy on HIV infection. Pregnancy does not have significant influence on the progression of HIV infection. However, if pregnancy occurs in late stage AIDS the rate of maternal mortality is increased. Ayidele? Pregnancy be rasu yemikebid neger alew gin stage of HIV lay yileyayal... X-stage sihne mortalitiwan yichemiral. Late age lay TB alat minamin silezih mortality wan yichemiral. Mikiniyatum physiological chenchu beza lay tekeyirola.

The other, Mother to child transmission is MTCT new. Is the transimission of HIV virus from the mother to the fetus and child during pregnancy, child birth and breastfeeding? Be 3tu condition trnsifer lihone yichilal. Kenezih wusit betam hayili yemihonew, during birth new highly. The rate of mother child transmission is estimated to 15-25% in developed countries, 25-35% and 29-47% in Ethiopia without intervention. The other HIV is transmitted to the offspring during pregnancy in 5-10%, labor 10-15% and postpartum in 10-20%. So without any

intervention, 20-45 infants will be HIV infected. The other is factors influencing MTCT mother to child transmission. Andegnew viral load new. High viral load kale, high transmission yinoral. Huletegna, fetal condition new. End infeccius condition new ihih...sositegnawu mathernal condition new. Arategnawu obstetric new. Amistegnaw infant feeding practice new. Inezih, be gara kalseru MTCT achieve mareg anchilim new. Viral be viral drug controll madereg yinoribinal, Fetal protect mareg yinoribinal. Gilts new ayidel? HUlachinim astemar mehon alebin new. Ihe factors that impact transmission be deyail yaweral mallet new. High recent infection, Rom > 4 hours. Premature rupture of membrane k 4 seat belat ke koye mallet new. Episotomy last time lay awerichalew ayidele bebizat stitch yemibalew mallet new. First infant of multiple birth, mixed feeding. Advanced disease of the mother malet concurrent HIV desease kale. Invasive fetal monitoring. Be per vaginal gebten new asses yeminadergew bizu gize, instrumental deliver... are high transmission. Always surgery kale contact ale. Skin, muscle, fascia ayidele bizu new ayidele silezih contact achin tilik yichemiral.

During lactation inatiyewa HIV positive kehnech yemejemeryawu were yemigebaw...new ayidele. HIV yemijemirew ke siru adigewu new yilbalal ayidele semitachewal ayidele isun ke za ke 2 iske 10 minim sign ayasayim new ayidele. Manin new yemiyateqawu HIV? Yetun sel new yemiyatekawu? Tawujalachu. HIV min count argu new yemibalew? CD4 ayidele? CD4 mindinew ketebale, any immune systemic organachin kedekeme, immune systemachin yemiyasadig weyinin yemetawun neger virus, yemetawu neger bacteria. Yemetawu neger parasite new bilo sense yemiyadergew CD4 new. Beza lik new parasite sigepa itiofil, varal ina fangus sihn limphocyte yamiyamertew man new? HIV kale apprtunistic new yemihanew lemindi new CD4 count kenesenew. CD4 count kenese mallet, leloch bacteriayawoch indayigedelu min yaregal maleet new ? yikenisal. Hulum seloch act adirigo indiseru yemiyadergu new malet new.

PMTCT is majority of children with HIV wer infected through MTCT(during pregnancy, Land D and breastfeeding.HIV infected trough maternal lactation, labor and etc. These are thebasic; PMTCT program aim to reduce and ultimately eliminate new pediatric HIV infection in Ethiopia morethan 95% from MTCT. Reduce or elimination new ketechele. The second serve as entry point to high care and support services for women and the family. The next is providing opportunity for testing and passing HIV prevention messages to women and their families. PMTCT with the available intervationss MTCTcan be reduced to less than1%. Tessting and counseling compnentochin, ART, elective cesarean deliver and treatment of norelated diseases,STDs, and Ois.

Appendix- J: Sample of the power point of which the instructor was teaching

Observation One

- ANC Visits

I. First visit at 16 weeks

.Major activities are;

- Dx of Px and determination of the gestational age
- Risk ass't and determination of the medical status of the mother
- Health promotion by education on nutritional supplement, danger signs of Pregnancy e,t,c
- Care provision like malaria prophylaxis, preventing of PMTCT of HIV, iron supplement & immunization with tetanus toxoid.

danger signs of Pregnancy: Like

-vaginal bleeding - decrease fetal movement

-Blurring vision - sever headache

-Rupture of membrane

- - Premature onset of contraction etc.

- **II. Second visit b/n 24-28 weeks**

.Major activities are screening for;

- Hypertension
- Multiple gestation
- Anemia
- DM &RH sensitization
- Further health promotion, care provision &plan birth place
- **III. Third visit at 32 weeks**

Major activities are screening for;

- HTN
- Anemia
- Multiple gestations
- DM & RH sensitization
- Health promotion, care provision and finally update individualized birth plan.
- **IV. Fourth visit at 36 weeks**

Major Activities are screening for;

- HTN
- APH
- Multiple gestation
- Check for fetal lie, presentation, growth and well being
- Health promotion, care provision and
- Finally prepare birth plan.

II. Health promotion /advice& counseling /

Counsel About –

- balanced diet,
- avoidance of drugs,
- smoking and alcohol,
- adequate rest,
- hygiene and safe sex,
- danger symptoms of pregnancy
- BF&FP after delivery.

III. Care provision (care provided)

- **Individualized delivery plan,**
- **TT immunization**
- **ART for HIV women(PMTCT service).**
- **De-worming :(using single-dose albendazole (400 mg) or mebendazole (500 mg), is recommended as a public health intervention for pregnant women)**
- **TT Vaccine for pregnant woman**
- **TT vaccine is an immunization used to protect woman and fetus from Tetanus**
- **If given as a separate vaccine to women of childbearing age**
- **At least two doses of 0.5ml of TT vaccine are given intramuscularly (IM) into the upper arm.**
- **but for maximum long-lasting protection throughout the childbearing years women should receive five doses.**
- **It should be stored at between 2oCand 8oCand never frozen.**

PMTCT During Pregnancy

- **Women and HIV**
- Women are more affected than men:
- 61% of people living with HIV in SSA were women.
- National prevalence 2.3% (Female **2.8%**:Male 1.8%)
- Addis Ababa : **8.5%** (Female: 10.1%:Male: 6.8%)
- Prevalence at ANC: 10-12%

- Number of pregnant women living with HIV:90,311.
- Ethiopia Stands 11th(the 1st& 2ndbeing Nigeria-15% and South Africa-14%)
- **Vulnerability of Women**

Class observation 2

Subject: ENT (Ear, nose, throat)

Dept.: Nursing

Year: four

Date: 08/12/ 2021

Duration: 48 minutes

Code of instructor: Inst. 2

The researcher entered the class before the instructor by the instructor's consent. Then, sat at the front of the class near the corner at door side and started observation as follow.

The instructor came to the class along with here student carrying CDM in baggage. The instructor carries her laptop and markers on her hand. She put down on the table and took out CDM from the baggage and the connected to her laptop. Then. Opened the PowerPoint, greeted students, glanced all the class. Then, introduced the previous lesson. Began with telling them they have discussed anatomy of the Paranasal sinuses

The daily lesson was acute sinusitis

Inst 2: okay, we will see clinical diagnosis. To begin with symptoms, they have major symptoms and minor symptoms. Major symptoms are facial pain or pressure that is facial pain because of the miniature. The other is facial fullness or congestion. Pain ina congestion yileyayal ayidel? Pain sibal ...forward siyaregu pain yisemachewal. Facial congestion yembalew degimo mulu fitachew weyim afachew ina afinchachew akebab yemola yimesilachewal yikebdegnal yiluwachewal. The other they will say upper nasal obstruction weyim afinchaye yemola yimesilegnl yiluwachewal. The other condition is purulent yehone nasal discharge yinorachewal teblo yitasebal. Other type hyposmia or anosmia the other definition hyposmia ina anosmia balefew ayiteal. Ihenin bedenbi yemitawukut yimesilegnal. Hyposomia decreased sense of

smelling in anosmia absence of sense of smelling eee... anosmia means sense of smell. You have to be able to characterize these conditions. Chief complaints characterize maresq albachu hyposmia or anosmia bilachu or hyposmia or anosmia blachu describe bitaregu yeteshale yihanal mallet new.. The other major condition is fever. Eee... fever...

Silezih major symptoms are facial pain, facial congestion, nasal obstruction, purulent nasal discharge, hyposmia or anosmia in fever nachew. Silezih kenezih kirateria patient huletun biyamowal kehona by default patient acute sinusitis alew mallet new.

When we see minor criteria you see, so minor criteria sinay consider yemideregu negeroch you see minor yetebalubet mikiniyat le major criteria more common...more common directly...in to major criteria or general nachew , minor criteria generic nachew but they are not affecting sinusitis e... or be lelawum lay occur yaregal that is why we say at least one criteria of major symptoms and 2 minor symptoms yeminilew.Eee the minor criteria lay yeminaskemitachew. Eee. Minor symptoms are additional criteria. ...the minor symptoms are first headache, but headache silalew bich sinusitu mallet anchilim. Silezih new inde minor criteria yeminitekemew. They are additional minor criteria yemiilew. The other criteria of minor condition is halitosis. This is condition where some body has above yehona oral cavity odor sinorew afu yemishetew kehona with this patient we have obstruction in the nasal cavity and the paranasal cavity also., you know that the oral cavity they also manifest halitosis. The other one is fatigue. Patient is also present with dental pain. ...dental cavity lay papillar bone new attach yemiyadergew, so ke papillar bone to maxillary lay infection lihona yichilal, but patient with dental infection also concurrently or following dental infection patient also develop sinusitis. The other management are cough. Sinusitis sinorachew cough madireg yichilau. The other is ear pressure. Ear pressure is another criteria mallet new. Ear pressure linorachew yichilal. So, Silezih inezi with one major criteria 2 minor criteria sinusitis menorun yasyal mallet new.

Acute Sinusitis

So you should differentiate the cause of acute sinusitis if it is viral or bacterial. Viral or bacterial mehona or even some times fungal mehona differentiate maresqachin to narrate or eee...to decide on which management or is it viral or is it bacterial bilen meleyet mallet new, so fungal infection somehow acute sinusitis wed chronic sinusitis mekeyer yichilal abizengnawun gize mallet new. So, fungal infections can be acute commonly ...they are more of chronic mehona

wede chronic. More or less acute sinusitis sibal... as we know.. Lemisale our patient common cold common cold yeyazew liji bimeta olready odor alew right? When according to technology...eee fever kalew parasitamol linceti inchilalen and wed adequate direction adequate inililkalen if you have confidence anatomic abnormality mayet yichalal mallet new.so to consider bacterial sinusitis, kartagener's maserat new gin begna set up lay bizu available ayidele... ee silezih aetiology yeminaserabet technique kale directly hido... the actual could be began ager set up wede laboratory liken bacterial weym viral ke etiology gar matinat yichalal. So, yegna set up gin indeza ayidelem. Silezi yegna set up lay balut negeroch temerkuzen varial new weyis bacterial new yemilewun new yeminileyew. ..more of yitekimal , so, patient with varial or bactriel some what yileyal. Kidim yayenachew criteriteriyawoch they will help us whether it is sinusitis new aydelem yemilew new yeminileyew. one of the differentiate whether bactrial or viral acute sinusitis is the duration. Whether it is acute viral sinusitis they will have smptom,, duration... bizun gize manifestation ind Wayim degimo manifestation indegunfan longer than ... and the patient will say huligize the sympotoms are somehow yileyayal... mallet new. In bacterial sinusitis the duration is longer and the patient will say you increase in each day for seven days. Somehow increase iyaregu yemimetu kehne bacterial sinusitis new. Another thing is fever. Fever helps you to differentiate between acute virial and bacterial sinusitis. I know fever is not only hulachum iyasebachu yalew neger indeza new biye asibalew, so we don't say only bacterial cause fever. So vever...bacteriam viram yasketilal gin some haw betam eee... the more virial mehonun yemawekachin the more kefever gari bacterial silehonu bacterial sinusitis some how knowledge silehone viral sinisitus some how the more fever yehne new mallet new ke bacterial sinusitis maiet new. But technically ...but.. in case of bacterial sinusitis, if it has apparent level of fever mallet new. So patient iske 40c0 fever menorachew I think it should be bacterial infection mallet new. Andi neger duration new huleteгна fever new. The type of condition is patient will also have facial **painu** in the case of bacterial sinusitis it going to be more purulent. But in case of viral condition kehone patient more sever yehone pain yinorachewal mallet new. ... so indezih indezih conditionoch an additional headache yinorachewal. Headache is more directly through bacteria, so if you have a patient with longer hedache, if the patient have facial pain, if the patient have significant amount of fever, if the patient has facial pain head ache, it is more of in the direction of bacterial sinusitis.

Managementu bitay bacterial sinusitis, viral sinusitis bilachu set madiregachu **managementachun**

bicha sayihon manege balemadiregachihu degimo more of complication yeminarachew more of bacterial sinusitis....if you don't treat patient with sinusitis, the patient may develop infection. The infection develops into orbital organ infect liyareg yichilal. So, patient will have periorbital cellulitis, orbital cellulitis, subperiosteal abscess, in orbital abscess. The patient also has other intracranial condition like meningitis... silezih inezih bacterial or viral are to be treated properly mallet new. So, viral kehone ritro virus, influenza and para influenza nachew. Ii...im so upperresparatory infection sibal frequently mention yeminaregachew nachew. If you have oter acute sinusitis it will be your regular activity, so it will be retro virus, influenza virus and para influenza virus. From the bacteria kehone I hope fereqently yeminitekemew mallet new temariwoch laybetam frequently yemitagegnut maletnew. Etiology bitbalu megilets yemitichilu mallet new. So the most common bacteria is S.pneunonic, H.influenzae, M. catarrhalis and anaerobes. So these are infection nachew, so eee..ahu yeminegirachu bacteria in most nimonic for all nachew. In most pneumonic and transfer for meningitis and or transfer otitis media and transfer sinusitis, pneumonia, otitis media and meningitis. Most commonly which disturbed in the body is strabto cocus pneumniae s the leading cause of all, so... if the patient has dental pain occur yemiyareg kehne oral infection new. Oral infection degimo usually they are affecting between ...so abzengnawun gize ke virus in k bacterial sinusitis the more common are viral because of nasal cavity lay yemihon bizun gize sinusitis abzengnawun gize sinusitis are virus. Kidim mention karegnachew ... it should be one occur yemadireg chance silalew you have to be one and ..malet new. So eee...ketilo yalut routs of infection nachew ... dental infection rise to sinusitis arise liyareg yichlal, so patient lay attain liyareg yichilal. The other one is clinical diagnosis. Patient sinusitis occur arigowal bilach sitasib you have to be order nasal endoscopy or x-ray or CT scan mazez tichilalachu. So eee... clinicaly order kemaregachut befit...oudor menorun check inaregalen, keza endoscopy ... this is chronic but any how describe arigu biye asibalew . benasal kavity batayut mindinew ymihnew red new yemihnew so pain occur siyareg bizun gize it is going to inflamed new yemihnew, so it should be that nasal cavity ... to some extent...so the nasal turbnut or the conchie yeminilachew they can appear more on ...so become... obstractive ayidele. So infection ande occur kaderege you have to be more conscious ...The other thing is CT or X-ray degimo order bitadergu ... reddish yehone neger yasayal mallet new, so managementachiw it depends on the condition mallet new,so ande viral new weym bacteria new blen defirentiate kaderigin siymptomatical new manege yeminaregewu le viral, but

in the case of bacterial antibiotics in setal mallet new. So nasal obstruction kehne...frequently...nasali irrigation madireg alebachiwu, so frequently afinchachewun idiyatibu recomand inaregelen because for one thing obstructionun yikenisal for onather thing degimo poluent yehone discharge indweta mederegu actual helping the infection ...the other decongestant order madireg yinoribchewal. Gin inezih topical yemiderg decongestant at the end it is not recommended for longer than three days. Valutayzation silemnerew, at the end of the day patientun addicted indihne yaregal mallet new. Nasal congesti again indezhi iyale you can order nasal decongestant, in other day you can order nasal douching with alkaline le bacteriam leviralim mallet new,. The other one is you have to order ... the patients have fever, headache alachew so parasitamol order madireg inchilalen or topical nasal steroid mestet inchilalen inflametionun lamekenes topical nasal steroid mestet inchilalen mallet new, so viral ina bacterialun differentiate bitaregu masekumu managementu yikelal mallet new. The commonly bacterial antibiotics eminitekemew Augmentin at first line new yeminitekemew but if the patient doesn't show improvement that additional yehonu resistant yehonu bacteriyawoch alowachu mallet new, so sileih assess lemadiereg yemiredu more potent yehonu antibiotics such as wede other surgical treatment inhedalen mallet new.

Appendix- k: Sample of the Power point for observation two

Sinusitis

- inflammation of the mucosal lining of the sinuses

Classification

- acute: <4 weeks
- subacute: 4 weeks to 3 months
- chronic: >3 months

Pathogenesis

- anything that blocks mucus from exiting the sinuses predisposes them to inflammation

- **Acute Sinusitis**

clinical diagnosis --at least 2 major symptoms or 1 major and 2 minor symptoms

– Major Symptoms:

- Facial pain/pressure
- Facial fullness/congestion
- Nasal obstruction
- Purulent/discoloured nasal discharge
- Hyposmia/anosmia
- Fever

– Minor Symptoms:

- Headache
- Halitosis
- Fatigue
- Dental pain
- Cough
- Ear pressure/fullness

Acute Sinusitis...

Etiology

- maxillary sinus most commonly affected
- Organisms - Viral (most common): RV, influenza, parainfluenza
 - Bacterial: *S. pneumoniae* (35%), *H. influenzae* (35%), *M. catarrhalis*, anaerobes (dental)
 - children are more prone to a bacterial etiology than adults, but viral is still more common
- **Acute Sinusitis...**

Routes of infection

- Nasal route- acute rhinitis -Polluted water ,Nasal packing , Nasal FB.
- Pharyngeal infections –tonsillitis ,adenoiditis
- Dental route -Infection of the second premolar or first molar ,Oroantral fistula.
 - External route - Compound fracture of the sinus , Penetrating injury

- **Acute Sinusitis...**

Management

- X-ray/CT scan not recommended unless complications are suspected
- symptomatic relief and expectant management
- moderate symptoms that worsen or persist beyond 5 days: intranasal corticosteroid spray
- severe symptoms that worsen or persist beyond 5 days and refractory to INCS: amoxicillin therapy +/- INCS +/- referral to a specialist
- surgery if medical therapy fails: FESS

Chronic Sinusitis

- inflammation of the paranasal sinuses lasting >3 months

Aetiology

- inadequate treatment of acute sinusitis
- untreated nasal allergy
- allergy fungal rhinosinusitis
- anatomic abnormality e.g. deviated septum
- underlying dental disease
- ciliary disorder e.g. cystic fibrosis, Kartagener's
- chronic inflammatory disorder e.g. Wegener's
- **Chronic Sinusitis...**
- organisms
 - bacterial: *S. pneumoniae*, *H. influenzae*, *M. catarrhalis*, *S. pyogenes*, *S. aureus*, anaerobes mixed aerobic and anaerobic organisms
 - fungal: *Aspergillus*

Clinical Features (similar to acute, but less severe)

- chronic nasal obstruction
- purulent nasal discharge
- pain over sinus or headache
- halitosis
- yellow-brown post-nasal discharge
- chronic cough
- maxillary dental pain
- **Chronic Sinusitis...**

Investigations

- ✓ Nasal endoscopy
- ✓ X-ray.....opacity and thickening of the mucosal lining.
- ✓ CT scan is Mandatory
- ✓ C&S

Treatment

- Medical treatment
 - Antibiotics for at least for 3 to 6 weeks for infectious etiology
 - Decongestant
 - Douching with alkaline nasal wash.
 - Moist heat and steam inhalation.

- topical nasal steroid, saline spray
- Surgical treatment –open & FESS
 - when medical treatment fails .

Class observation 3

Subject: Dermatology

Dept.: Midwifery

Year: four

Date: 10/12/ 2021

Duration: 1:13 minutes

Code of instructor: Inst. 3

The researcher entered the class with the instructor by the instructor's consent. Then, sat at the front of the class near the corner at door side and started observation as follow.

The instructor arrived to the class carrying CDM in baggage on his right hand and hanging his laptop on his right arm. He settled them down on the table and took out CDM from the baggage and connected to his laptop. Then. Opened the PowerPoint, greeted students, and cleaned the white board. Wrote the topic 'cellulitis'. Then, began the lesson looking the topic on the power point and underlining the topic he wrote on the white board.

Cellulitis indet new bebizat yeminagegnaw ipidimologically kalachiwu... most of them ... bacteria or HIV or precontact mindinew izihga minamin min honachewal wede case new mehed yalebachiw. History of the present illness most of the time then tayutalachu. Distinctively you will see the color. **Colourun** tayutalachew. Cellulitis izi ga bihon zuriyawu evacuated yihonal, yikelal. Keleloch bota min yihonal? **Area yaawuun** yikelal, so they would be redness. Don't expect

Cellullitus ...in the abscess Because Abscess is not cellullitus, but what do you have color change. Key yihnal. The next thing what you do you have to do is when you touch indezh kenekachut, indezih sitnekut **areayawu** warm new. Yimokal. Yimokachewal, so what do you

do? You have color change, you have history of trauma, and warm history. what you do next is you send CBC ...why you send CBC? They would be ptosis . CBC **countachewu** min yaregal? yichemiral... what you do in hospital managementachu ayidele? ... Le 24 seat hospital instegnalen. Or most of the time 2 ken inastegnalen. Min insetachewalen? Ceftriaxone... then ceftriaxone setenachew le 2 ken IV kewesedu bohala 3gna ken discharge inaregachewalen. That is the management of cellulitis. The other thing 1 gm ceftriaxone for 3 days in the 2 oclock new yemitisetuachewu then as you see temelketu ihe ssever honowal. Iskezi dress min honowal? keltowal here is keltowal rednes new. Then bitinekutim warm new yimokal. That is we say cellulitis....this is facial cellulitis. The other thing devastating is gangrenous cellulitis or necrotizing fasciitis. Devastating lihone yichilal and mortality rate yemimotut sint percent yedersal yilal? 50%. **50% tu** yimotal. And caused by streptococci, histotoxic clostridia. This is devastating bacteria. Most of the time inezih beshitegnoch, necrotizing fasciitis simu rasu yinegrenal. Nikrotizing fasciitis... yemiyatekawu manin new mallet new? Fascia new. Remember this skinachin epidermis, dermis... ke dermis bohala yalew manewu? Fascia iko new. Fascia mallet min mallet new? Muscle new ayidele? Muscle...kale fascia new. Iziga abscess ke hone,iziga degimo skn ale...fascia yinoral... superficial fascia yinoral keza wusit lay muscle yinoral keza ke sir degmo lela min ale? Deep fascia. Min yiseral isu degimo abdominal **cavityin** yizegal. So there is superficial fascia and deep fascia. So this clostridia most of the time there are other diseases. Sikuwar beshita lihone yichilal. CLD lihon yichilalal. Just, ahun kelay ayidelem... ihe bacteria kelay ayidelem infect yemiyadergew manew? Kesir new. Fascia kesir new yalew, so wher most of the time yetignaw bota involve yaregal kalachiwu, yetignawum bota involve liyareg yichilal. Inen bebizat yagatamegn bebizat abdomen new andi, huletegnawu izh tough, sositegnawu degimo slotal ger new: porineours gangrene inilalen. So, it can involve the soli, they can involve the tough and they can involve the abdomen . the other, bizu muscle sleale yemiyatekaw fascian new , so this is appendges develop progressively they do have severe pain yinorachewal, betam, tenderness yinorachewal. Silezih sitieku ayasinekuwachum. eee.. If so there is necrotizing fasciitis, always...always you should refer that patient immediately as possible. One thing that mini yinorachewal? Pus yifetral. Lemisal, izi ga kehone , min yifetral... beseatat new liyunet yemifetrew. ., so necrotizing fasciitis wed lelaw indayzamet kodawun , muscleWedzih indayhed yibalinna betegne seat new yemisera. What is forbidden qodawun musclun mekided new. Wed lay or tach indayihed kodwun mekided new. The porpose is limiting

that bacterias infection. Then we start anti virus. Bebizat mix argen new yeminsetachew. bebizat combine arigen new yeminsetew. Ceftriaxone with trachoma's. then we will continue. kift indehon Ceftriaxone ina metronidazole yisetachewal so yemotewun fascia min yadergal. Indezam hono sint sew yimotal? 50% yimotal. So one methods is igna ager lemindinnew yemayidnew? semayina midir mallet yichalal ... lemindinew kalachu the most important thing is the time. Andi sew tolo kemeta, tolo incision yiseraletal. Tolo kalmetas, min yaregal? Expand yaregal ina severi yihonal. That are the characterstics of eee...m necrotizing cellulitis. Sewochu degimo min min yalachew sewoch nachewu bebizat? DM., lela? Trauma yalachew, lela malnutrition or alcoholics ina bizun gize sikuwar beshitegna agatimognal even ye 25 amet wetat agatimoagnal. with necrotizing fasciitis indet neber biye sasib hi is alcoholics betam yasazinal. He was died with necrotizing fasciitis. So, it was a devastating time, so this saliva stage he would eat the fascia, so the other is inezih bich ayidelem meningitis liyameta yichilal. This not the common type of bacteria ... the other is...ichgnaw degimo color new. The place is highly pressurized ... bebizat color change yametal. Shitam yemibalew neger ale aydilem. Ke... jemiro new shita matikat? Caused by bacteria streptococcus most of the time. Most of the time in the toe. That is most of the time which is centralize toe. Erythrasma maceration between toe webs. **It can also Involve... Manini involve liyareg yichilal?** Maceration between the toes. Be tatachin mekakel lihone yichilal. And the other..the other is pitted keratolysis which involves the stratum corneum of the web spaces and plantar surface. Lasayachu? Ihe mindinew? The one which we call it pitted keratolysis. It is most of the time by bacteria micrococcus sedentarius yeminilew it would become malodorous feet, pitted lesions and hyperhidrosis.

Mindinew keratolysis yalnew? Kelay yayenew ayidelem? So, the treatment is antibiotics new...antibiotics new. I have said the first line is ceftriaxone, Augmentin or erythromycin similarly trichomycosis axillaris and pubis yeminilew ale. The major is bacterial infection of the hair shaft. Manin new yemiyagegnewu meselachu? Tsegur lay sihon dederes inilalen ayidele? Dederes weyim minidi new yemibalew be Amarigna?

Ss: Forifor

Inst.3: eee.....m

Ss: forfor

Inst. 3 : Yaa..forfor. major is bacterial infection caused by Corynebacterium. We can give the antibiotics

This is bacillary angomatosi. Min yimesilal isk sitayut? Min yimesilal? Most of the time HIV yeyazew sew lay yitayal most of the time. Exclusively present in HIV patients. Opportunistic infectin yemibalu alu. Especially, eee.. it will cause since they are immune compromised... because of sever disease these are the common bacterial diseases which cause infection. Huletum bacteriyawoch manachew bilen kasebnachew, man ina man nachew bilenal? Streptococcus group A and Staphylococcus aureus lela simu mani yibalal? Streptococcus pyrogens yibalal. Huletum bacteriyawoch nachewu bebizat min yemiyametut? Bacterias infection. Le mindi new yemiyametut? Iskinachin salt alew. Chew alew. Ye iskinachin PH sodium alew inegn bacteriyawoch isun tekuwakumo new skin affect yemiyadergut, so these are the common bacteria because iske ahun kayenachewu necrotizing fasciitis, keza ketilo yeminasebew man new? Cellulitis. The first necrotizing fasciitis keza betach yalut ine Erythrasma...they can be treated. But I think chigir yalew bebizat min lay kalew yihanal fitachew, kodachew tebelashito simeta.. Cellulitis, necrotizing fasciitis mikiniyat lihon yichilal sepsis yametalu.

The other thing we are going to discuss is leprosy. The main things are the objective reagarding to you know the procedure how to detect a case of leprosy, how to recognize and diagnose leprosy, how classify leprosy and what is the diagnosis and management of leprosy? These are tha management, and leprosy is a chronic infectious disease caused by mycobacterium leprae. Keneza gar yimesaselal. Lela mycobacterian man tawukalachu?

Ss: Mycobacterium tuber...

Inst.3: mycobacterium tuberculosis ale. Kesu gar yimesaselal. But it doesn cause sever deseas. Min mallet new antigen ratu zikitegna silehone kekoyita bohala new symptom yemitayewu... aa... and it primary affects the skin and peripheral nerves. Bebizat affect yemiyaregew skinina kodachin new. It can also affect nerve. Be Amarigna mindinew Leprosy? ... Leprosy mindi new?yes?

Ss: Siga dawwe

Inst.3: Yaa sigadawe beshita newu yemibalew... sigadawe... but it can min lihon yichilal? Bacteria lihon yichilal.... Right it is not directly transimeted, but bebizat yeminasibew indet

new? Kesew wed sew yemaytelalef yimesilenal ayidel? So lemindinew yemitelalefew bitili currently most of the time trough droplets of infection. in a indet mallet new? Mycobacterium tuberculosis ale ayidele? Tuberculosis be mindi new yemitelalefew? Be droplet new ayidele? Ihegnawum bedroplet yitelalefal. So, to some extent for long period le bizu ametat ke 3 iske 5 amet diress bishitaw litay yichilal. Bemind new yemitelalefewu? Skin to skin contact. Silezih, betesebu leprosy kalew leleala sew litelalef yemichilibet mikiniyat abiro bizun gize silemikoyu min yinorachewal? Skin to skin contact sileminorachew new. Skin to skin contact. That is it. But if it is treated, Ketakeme gin bemin ayitelalefim? Ayitelalefim. Remember that selamita bemesitet ayitelalefim mallet new biye new. So, indemagnawum bacterium we will intend, so skin to skin contact is the other ways, so what are the leprosy case finding? Leprosy indet new yemiggnew? Any skin lesions with or without bacteria, so what are suspects? Min netibocch leprosy or yesga dawo lihon yichilal tebilu yemitasebut sewoch min min yinorachewal? Milikitochus min mindinachew? One thing is pale or reddish patches on the skin. Ihewu temelktu. Andi neger lingerachu, when we have leprosy patient. Ahun iz class leprosy atayum. Yekoda hikimina hulgize sosit, arat meskot linor yigebal yibalal. Min inditay new? Birihan inditay new. I.i.. Yekoda beshitegna birihanu alasayachum kale megareja megeleti new. Ihen abnormal skin yitayal? Bechelama ayitayim. Look at skin pigmentation ...ahun izi lay mayet ayichalim. Iziga basayachu bedenb yitayal...ihegnawu kezagnawu temesasay new? Ihe new ayidele yemitayew, so adegna kodachin lay ppale or reddish on the skin. The other loss of feeling on the skin. Kodachew lay skin senation yitefal. The other is burning sensation in the skin. Yemiyakatil neger or painless swelling or yabete neger lihona yichilal or lumps in the face and earlobes. The other is numbness and tingling of the hands or the feet, weakness of eyelids, hands or feet. It can involve the nerves where are bebizat yemitayewu bota kalachewu fitachin lay ijachin lay, igir... the nerve or bebizat inegnin... what about skin kehone. Iziga yemitayut min ina mindi new? Fitachewun andegnewu min yilal painless swelling or lumps in the face and earlobes. Iziga lump neger ayitayachum ...lumps ...the other what it says is weakness of eayelids. [ayinachew weakness yinorachewal](#). Ayinachewun mechefen ayichilum. So leprosy most of the time diagnosed mareg yichalal bemayet. Leprosy 96% clinical diagnose mareg yichala inde be laboratory degimo maregaget new. So, the history taking includes general information, main complaints, previous treatment kalachew, they are contact information. The other is examination of the skin. Kodachewun high pigmentation or low pigmentation yayachut

skin level min aynet skin lesion new? High pigmentation meho alebet coleru redness or betam yemikela kehne inde other is examination of the nerves and the other thing is examination of the eye, the hands and feet, so regarding to the skin lesions, there might be patches lihon yichilal. Or patches mallet balefew sinimar macule and patches bilen neber. Macule ina patches palpate yideregal? Ayideregem. Signu sint new? 0.5 belay new. Ihe palpate yideregal? Be ijachu mawek tichilalachu? Signu kesint belay new? Ke 0.5 belay new. Or some times nodule lihon yichilal. And the other of sensations nerve palpation. Sensation mindi new? What do you sens? Balefew.... Negrachewalew ayidele balefew?

Ss: ayi. Lela bota yihnal.

Inst.3: min min sensation ale? Nigerugn inji?

Ss: smelling, hearing..

Inst.3: No, ihe special sense new yemialew. Sensation ayidelem. Touch... touch yemibal ale. Touch iko be hulet yikefelal yehabeshana yeferenge ...hahaha...crude touch and fine touch. Croud touch mallet indezih mallet new. Fine touch degimo let us see and sew wede iziga bimeta ... dingay yiwerwur ina manew yewerewu that is touch. The other is pain. Himem rasu. The other temperature. Temperature sinil cold temperature and warm temperature new. The others pressure ...pressure... the others position...balefew samint sile position alaweranim? Restachutal ayidel? Anyways adegnawu mindin new? Sensation touch the skin new. Andin sew fitun wedza tazoru ina be ijachu touch mareg new. Min ayinet touch new. Fine touch new. Botawun iyasayachu yet new yenekawut... iziga new bila litasayachu yigebal. Kalasayech gin min ale mallet new? One thing we can get t suspect of leprosy. The other is generally the nerves are affected by leprosy. Ina inezih nachewu. Inezihim nerve that are affected by leprosy are great auricular, radial cutaneous, ulnar, median, common peroneal and posterior tibial nerves are often affected. And weyim hulet bota nachew. Huletu degimo eee... sensory nerve then the commonst the most common is ulnar and peroneal inezih commonly nachew. Ijachun izi ga argu. Aregachu bemedafachu hulet tatachuyitayal izi gar? Ulnar nerve silale yanesachewal. The other is oricular. Wede joroachin ...media kehone izi ga balefewu sinawera yeneberewu. Lela posterior tibial nerves ihew izih ga kurchimchimit new ayidele ihe neger? And the Medias , so you should have palpate the nerve and confirm madireg alebin at least. Lasayachu, ihegnaw yitayachewal, regular number, ther is hypo pigmented iskin lesion ale ayidele bedenb silemay tay new inji.

Iziga nech honalech ayidele? It is hypo pigmented. Let us.... The swelling. This.. ahun.. hypo pigment yileyal. Izih alabetem?... and the other pakejing are. Ijachun techebabetuna izi ga yabete neger kale indezih aregina palpate this one. So, that are the nerve palpation. Inezih nachew ...so..there would be palpate sita dergu nervu min argewal? Abtewal. Mabetun sitayut, min min yinorowal? Always compare the lesion with the other, so what are the other nerve function test? Volunteer yeminilew volunteer muscle of the eye ayinachin endet yeminadergi meselechu? Lemisale, this is facial nerve ayinin chifin yemiyadergewu. Ayinin indezih chifin yemiyadergewu facial nerve newu. Facial nerve yemayiserawu ayinu yichefinal? Ayichefinim. Ahunim in kez of leprosy facial ligoda yichilal, so indet new yemitileyut? How we compare? Strength rasu ale. Lemisale ayinin indezih chefin man dena sile hne/ facial nerve. Inesu gin ayinin sigeltu, chefinu sitiluwachewu ayichefinum ayinachewun. Ihegnaw min yibalal? **Volunteer muscle test yibalal.** The other is sensory test. Sensation degimo ahun yawern new. Touch sensation, position sensation bilen ahun yaweran mallet new. We can se the skin, eye, hand and feet. Mecheresh lay bilo bilo sewuyewu alitakef kale, ijun yetekorete yimetal ayidel? Cloud finger yeminilew. The other eye injury orbital nerve **it** may cause blindness. So, what are the cardinal signs? The siga dawe new yeminilew be mindinew yeminawuk? How can we confirm? The first one is hypo pigmented skin lesions. When we say hypo pigmented skin lesion, kidim yaweranew bebirihan sitayut nech or kdawu ke lela bota yileyal. The other is definitively enlarged nerve. Min yehone new? Yabete. Sositegnawu degimo AFB positive skin smear. Keza kabetew koda namuna yiwesedal. Namuna tewesdo sisera basilai positive yihnal. So, ke nezi andu ketaye leprosy new mallet yichalal. These are the cardinal sign.

The are differential diagnosis of leprosy like tinea versicolor, vitiligo, psoriasis, molluscum contagiosum, onchocerciasis, cutaneous leishmaniasis, post kala-azar cutaneoious...ihenin anbibut.

Classification of leprosy. Leprosy be sosit yikefelal. One thing is yemikefelut be lesionochu new. Ahun ihe sint lesion alew isk kuterut. 1,2,3,4,5,6 bizu new aydele?so, lelegnawu degimo skinun keden ke lesion ga min yiwesedal namuna yiwesedal.Huletun sinwesid, lesionun ayiten, kutirun ayiten, we classify as: Pauci bacillary. Ke sint iske sint iskin lesion yalachew nachewu? Ke 1 iske 5 bicha. Sewunetachewu mulu maximum yeminoachew 5 new so we will point Pauci bacillary. Ke 5 belay six and more kehone ina ke isknachewu namuna siwesed positive skin

smear ke hone multi bacillary. Clasifficationun mawek lemin asifelege kalachu le tratmentu yitekimal duration yileyayal. The other the third one is pure neural leprosy. Bezih gize there is no skin lesion. Min bich new yabetew? Nerve... nervachew bich new yabetew...so leoprasy like macrobacterium tuberculosis Huletum bacteriyawoch nachew gin bebizat yemiyametut baacterias infection new. Lamindinew yemiyametut.

Disability grading yemibal ale. How we grade leprosy. Leprosy indet new grade yemideregewu? Lamisale ayinahin lay picture ale. Besu amakayinet grade 1 grade 2 bilen inkefilalen. Beijachinim lay indeza new.

Appendix- L: Sample of the power point from which the instructor was lecturing

- **Cellulitis**
- *Involves more of the soft tissues, extending deeper into the dermis and subcutaneous tissue.*
- *Group A streptococci are by far the most common etiologic agents*
- *But occasionally GBSC in newborn*

, Gm- in immunocompromised ,..

RX: rest ,po /iv/im ceftriaxone 1 gm daily ,procaine /crystalline penicillin or cloxacillin 500 mg iv qid

Erythrasma.

- *well-defined but irregular reddish brown patches, occurring in the intertriginous areas, or by fissuring and white maceration in the toe clefts.*
- *Corynebacterium minutissimum*
- *Rx : topical antifungal cream /topical antibiotics/fusidic acid cream or erythromycin 500 mg po qid for 7 days*
- **Pitted keratolysis**
- *Involves the stratum corneum of the web spaces and plantar surface.*
- *Etiology ; Micrococcus sedentarius*
- *Clinical feature : malodorous feet ,pitted lesions ,hyperhidrosis*
- *Rx : fusidic acid cream (Foban cream/erythromycin 500 mg qid for 7 days*
- *Give treatment for hyperhidrosis*
- **Trichomycosis axillaris and pubis**
- *bacterial infection of the hair shaft*
- *nodular thickenings on the hair shaft, composed of colonies of aerobic Corynebacterium.*
- *Benzoyl peroxide wash and gel are effective as treatment and prevention against recurrence of trichomycosis.*
- **Bacillary angiomatosis**
- *Etiology : Bartonella henselae*
- *Exclusively present in HIV pts*

- *RX : erythromycin 500 mg po qid for three weeks*

Objective of the module

Participants will learn:

- How to detect a case of leprosy
- How to recognize & diagnose leprosy
- How to classify leprosy
- What to do after diagnosing leprosy
- **Leprosy:**
- **Leprosy is a chronic infectious disease caused by Mycobacterium leprae.**
- **It primarily affects the skin and peripheral nerves.**
- **It affects all ages and both sexes.**
- **It can cause severe disability if not treated early.**
- **It can easily be cured.**
- **Cause of Leprosy**
- **The cause of leprosy is a bacteria called Mycobacterium leprae.**
- **It doesn't develop as a result of a curse or an evil spirit.**
- **It is not a hereditary disease.**
- **What is the difference and similarity between the causative agent of TB and leprosy?**

Transmission of Leprosy

- **Leprosy spreads as droplets infection following long term exposure.**
- **To some extent it can also spread by skin to skin contact.**
- **As the infectious person sneezes or coughs droplets containing bacilli will be expelled and inhaled by healthy person. The infection takes 3-5 years to develop into disease.**

Leprosy case detection

Leprosy case-finding:

- A case of leprosy is a person who shows clinical signs of leprosy **with/without bacteriological confirmation** and requires chemotherapy.
- Case finding: an activity that aims at identifying a person who has active leprosy.
 - **Identification of a Suspect**

A patient is suspect for leprosy when presenting with:

- Pale or reddish patches on the skin
- Loss of feeling in the skin
- Burning sensation in the skin
- Painless swelling or lumps in the face & earlobes.
- Painless wounds or burns on the hands or feet
- Painful and/or tender nerves
- Numbness and tingling of the hands and/or the feet
- Weakness of eyelids , hands or feet
 - **Examination of the nerves**

Nerve palpation

- Palpate the nerves for **enlargement and tenderness**.
- When palpating a nerve always use 2 or 3 fingers to do the palpation.
- The nerves should be rolled over the surface of the underlying bone
- The left and right side must **always be compared**.
- **Nerve function testing (Motor, Sensory and autonomic nerve fibers)**
- **1- Voluntary Muscle Testing (VMT)**
- - Testing the strength of muscles of the eyes,
- hands and feet.
- **Nerve function testing (Motor, Sensory and autonomic nerve fibers)**
- **1- Voluntary Muscle Testing (VMT)**
- - Testing the strength of muscles of the eyes,
- hands and feet.
- **Examination of Eyes, Hands and Fee**

Look for:

- Skin cracks & wounds on palms & soles
- Clawed finger & toes
- Shortening/absorption of fingers & toes
- Wrist & foot drops

Assessment of the eyes: Visual Acuity

- Test at 6 metres, asking the patient to cover one eye and then count the number of fingers that the assessor hold up.

- **Diagnosis of leprosy**

Look for the cardinal signs to diagnose leprosy

The cardinal signs are:

- 1- Hypo pigmented skin lesions with definite loss of sensation
- 2- Definitely enlarged nerves
- 3- AFB positive skin smears

The finding of one of these three is diagnostic for leprosy.

- **Differential Diagnosis of Leprosy**

- Tinea versicolor.
- Vitiligo.
- Birthmarks.
- Psoriasis.
- Molluscum contagiosum.
- Onchocerciasis (in endemic areas).
- Cutaneous leishmaniasis
- Post kala-azar cutaneous leishmaniasis (in endemic areas).
- Neurofibromatosis.
- Syphilis.
- Kaposi's sarcoma

- **Classification of Leprosy**

Leprosy should be classified according to :

- *The number of leprosy skin lesions*
- *The result of skin smear examination*

A- Pauci bacillary (PB)

- Patients with one to five leprosy skin lesions

B- Multi bacillary (MB)

- Patients with six or more leprosy skin lesions
- Patients with less than six skin lesions, who have a positive skin smear.

C- Pure neural leprosy

- These are patients, who do not have any skin lesion, but who have clearly thickened nerves with or without signs of nerve damage.

N.B. if there is doubt about the classification, classify as MB.

Appendix-M: Sample transcription of Hospital ward observation

Subject: surgery

Observation One: Bedside

Bed: 22:1 medical Ward

Date: 08/02/2022

Department: PHO

Year: 4

Number of students: 10

Starting Time: 03:17:33pm--- 02:55:45Pm

Duration: 52:22 minutes

Code of medical doctor: Dr.1

It was in the medical ward where students trained to apply the knowledge they have obtained from classroom lectures or in their health educational progress to the diagnosis and treatment of the living patients in their real professional careers. The practice takes place in the hospital at the medical of the patient's bed. The students firstly clerk the patient. Clerk means take case history, conduct a physical examination, hypothesis the possible diagnoses and managements. However, the problem is the patients were Amharic or Afaraf speaker whereas the medium of instruction is English. Hence, students are forced to interview the patients in Amharic or Afaraf, but they discuss and present the case to their supervising doctor in English as follow:

S1: Demographic history

This is 31 age young men come to hospital. The patient was sick. He has the pain over the right lower quaderant. ...Right lower quadrant aa..haa..k...ee around right left quadrant area.

Dr.1 and students: laughed hahaha.....

S1: He has anorexia, nousia, vomiting of three day duration otherwise no history of any known chironic illines.

History of past illness:

No history of DM, no history of palpitation, no history of TB. No history of asmatic, no history of past surgical history, no history of any surgical history.

History of personal history

No history of smoking cigarette, no history of drug abuse

Family history: No history of DM, no history of CHF,

Physical examination:

Dr.1: Before that your HPI is abdominal pain of five day duration. Can you comment him on history? Have you got the patients idea? Have you get any differential based on his history?

S2: The HPI doesn't lead me to say anything.

Dr.1: So, what specific comment you have to.....

S2: the chief complaint, the negatives and the positive doesn't mentioned very well

Dr.1: Okay, Other.... You.

S3: well, abdominal pain, many causes for abdominal pain, but you are not selected. The question is whose this... this...this...Okay...

Dr.1: What is your specific comment? For example, abdominal pain in right lower quadrant. What do you went to add on his history? What makes your brain vague? What kind of the patient? What should be incorporated?

S3:.....

S4: Eee, history it is good.

Dr.1: please, do not say as such, good or bad.

S4: He didn't detail elaborate.

Dr.1: I am asking you, what are that remaining? What do you want to incorporate? What is left from history? What you give him insight or comment? Your additional...

S4: Okay, for example, when he say chief complaint, we have elaborated chief complaint.....

Dr.1: What is left from the chief complaint? Abdominal pain for five day duration. What do you want to add?

S4: what is chief complaint? Eee...

Dr.1: chief complaint is the topic iii...? The main topic, so the main fault on chief complaint is abdominal pain. yaa .. Eee..? Abdomen has quadrant. Which quadrant of the abdomen is?

S1: eee... Right... Right left quadrant.

Dr.1: Right left quadrant. Right....

S1: Left quadrant...right left quadrant...

Dr.1: eee....there is right left quadrant? Right lower quadrant or RLQ. **You haven't clerked the patient.**

S1: yaaa....aa right lower quadrant

Dr.1: abdominal pain of right lower quadrant. Ish...you ...pointing to the 5th student

S5: I think he should include associated pain the patient is telling as well as he should mention the positive statement and negative statement ...His HPI is not good.

Dr.1: yes, the HPI narrows us to think of specific differentials the positive and negative statements ayidele? That should be elaborated. Abdominal pain of right lower quadrant should be so many differentials ayidel? To identify among the differentials, to make some of it top, the negative and the positive statement lead us. You...

S6: On the biographic history he has to write in paragraph form. Isolated...

Dr1: ante yemitichemirew ale?

S7-----

Dr.1: What is your top defferencial from your history?

S1:eee...top differential is....Tumor

Dr.1: right lower quadrant? Which tumor?

S1: Parasite infection.

Dr.1: What is the age of the patient?

S1: Thirty one

Dr.1: Thirty one ayidele? Young patient with 31 years of age.

S1:

Yes

Dr.1: why you say tumor

S1:-----he...is... nausea and vomiting..eee...

Dr.1: Nausea and vomiting is not specific for the tumor. Tumor....every abdominal eee...
Surgical condition could have nausea and vomiting abdominal pain. Okay, lela differential?
Another?

Young patient with the right lower quadrant pain. What are the top deferential? Isti andi andi
differential tiru. Young patient with right lower quadrant abdominal pain. Top differential...

S2: Bowel obstruction

Dr.1: Small or large?

S2: Small bowel obstruction

Dr1: Small Bowell obstruction. Other, you?

S4: eee... bowel obstruction

Dr1: They said. ... They are said. Igna gar nachihu? Tegenetelachu. Tega tega belu natop
differential for right lower quadrat abdominal pain. Ish...You...

S5: peritonitis

Dr.1: peritonitis is not deferential diagnosis. You know peritonitis is.... Eee..is just, clinically
more. For example, appendicitis can cause peritonitis, small bowel obstruction can cause
peritonitis, and tumor perforation can cause peritonitis. Peritonitis is a general condition of the
abdomen or total abdomen inflammation. Specific organ ayidelm lilih new. Alright Okay?

S3: volvulus

Dr.1: Right lower quadrant abdominal pain? Which volvulus?

S5: sigmoid

Dr.1: is Sigmoid on the right? Sigmoid anatomically on the right? *Is sigmoid colon found in the left or right? Eee...?*

S5: eee....eeee.....

Dr.1: we are discussing right lower quadrant pain differential...uu..m min?

S8: I said question again

Dr.1: Differential for right lower quadrant abdominal pain

S8: Perforation

Dr.1: Perforation? Which ...which organ? Liver perforation, rectal perforation, small bowel perforation, sigmoid perforation, cecum... Which one?

S8: Intestine

Dr.1: Um..? I have said two intestine, iii...? If you go anatomically specifically we have duodenal is intestine, ilium is intestine. Cecum intestine. Transverse colon is intestine, ascending colon is intestine. Descending colon is intestine, rectum is intestine. Which one? When we talk about specifically yaw... the right lower quadrant... we have to think organs that are located on the right lower quadrant. Ish lela differential ... e,,eh?

S7: trauma

Dr.1: trauma.... We are not treating of trauma.

S7:*Tiyakew min neber?*

Dr.1: what is top differential diagnosis for right lower quadrant abdominal pain?

S7: UTI...

Dr.1: UTI...! So, let first discuss organs that are located at right lower quadrant. Which organs *are incorporated in right* lower quadrant? One is the appendix, cecum, part of the ascending product. Ilium is the distal part. This is the abdomens conditions ayidele? There is also peritoneal

organs ayidele? Ureter ale eee...male lay new we are talking. Male ...so when you call deferential on the right lower quadrant, you have to think of this as well as organs in the right side of the upper quadrant. There are goal bladder, liver...right upperim bihone painu tach lihon yichilal. Deferential sitaweru leza yemihon new, so young patient came with right lower quadrant the first deferential lihon yemichilew mind new? Your top first deferential?

S8, S2 and S4: Appendicitis.

Dr1: Among the commonest surgical condition of in the right lower quadrant is appendicitis. Then another differential?

S1: Cholititis

Dr.1: ee...m? Do you mean cholelithiasis?

S1: Yes

Dr1: But before that there other differentials. There is ureteral. So, renal failure...nephrotic....

Right lower quadrant ketebale lemisale Kidney abscess... lihone yichilal gin top lihone ayichilim Andegna appendicitis, huletgna ureter, kidim yalkut ileum perforated the other the other top differential is TB intestine. TB intestine ileum akebab silemiyateka, distal ileum degimo right lower quadrant silehone intestinal TB the other right lower quadrant pain. Ahun male new iyaweran yalenewu. Female kehone degimo differential lela new yemihonew.

Patientu female bitihone min tichemirale?

S1: Ovarian cyst

Dr.1: ovarian cyst...lihone yichilal..I...h?

S8: Ectopic pregnancy.....

Dr.1. U...mmm.... Lela

S7: Ovarian torsion ayihonim? Ovarian torsion.....PID

Dr.11: PID okayeee..m Ovarian abscess lihone yichilal mallet new. Silezih, the other is if the patient is not young and she is older just like forty.... Fifty kehone you have to include other differentials. Even if it is right lower quadrant, it is not similar ayidele? Appendix mostly affect

young patient teenage indeza new. **Gin old patient kemeta** appendicitis top **defferentialim** bihon leloch rule out madireg alebachew. Tumor rule out maderig alebachiwu. Silezih you have to ask sign and symptoms of tumor aydele? Is there any night sweet, weight loss eee..? in the past some months significant weight loss, night sweet, morning headache, eeee....eee. Loss of appetite ee b symptom yeminilachewu ye tumore meteyek alebachihu. Maximum, old kehone you Can add fatty tumor as differential. **Young asira arat fourteen years ee...** Patient coming with right lower quadrant tumor new first top differential? And if you say tumor you says that young patient your top differential right lower quadrant acute appendicitis mehone alebet keza iyayachu unitary colic but old ke meta acute appendicitis is your top differential, but huleteгна minamin tumor new. ...Silezih ahun balen history right lower quadrant le male min min alen differential?

S1: Acute appendicitis

Dr.1: Acute appendicitis....iii Huleteгна?

S1:systemic...tuberculosis...iii.....

Dr.1: ay, huleteгна lela atiteram?

S4: Ureter...co...coli....

Dr.1: yes ureter, colic. The other?

S1: intestinal.

Dr.1: Intestinal TB or the other differential min lihon yichilal? Long standing ahun isu five day new ayidel? If the patient has history of repeated intermittent diarrhea, right lower quadrant pain, weight loss, sometimes this symptoms go to and they come and they go indeza bihone **differentialachu min yihonal? Rejim gize six month bihone?** Six month of right lower quadrant, abdominal pain, and intermittent diarrhea or constipation weight loss bihon differentialachu min bilach tasibalachu? Young patient six month.

S1:...Tumor

Dr.1: Tumor eee..ee.e...Other? Tumor it could be a tumor, but I am saying young patient. Do you know inflammatory bowels disease? There is a condition for inflammatory bowel disease, chronic disease huletum ulcerative colitis mallet new. Chronic disease ina **TB illeumin yatekalu,** so for the differential acute ayidelem six month new yalkuwachu. Acute kalihone isun atiterum.

Lemisale, arat day, four day, five day iyalachu eee... inflammatory bowel disease ...differential ayihonim. Chronic six month, three month right lower quadrant pain, intermittent pain, diarrhea, iii....constipation, iiiiii... weight loss kale chronic disease is the top differential. Chronic right lower quadrant pain mallet new. Silezih let us limit ourselves for the acute one and leave it the chronic one and we discuss acute right lower quadrant pain so our top differential... Adeгна..Appendicitis, huleteгна ureter colic, sositeгна the other medical condition min lihon yichilal?

S5: uuum...uumm... pyelonephritis

Dr.1: pyelonephritis (kidney infection)... Yaa... pyelonephritis is one of the differential by the way for the right lower quadrant pain because the pain can be involved in right lower quadrant, but if it is flank pain. The typical pyelonephritis is flank pain, but the other differential for right lower quadrant pain in pyelonephritis. Another medical condition for right lower quadrant?

S4: Salpingitis

Dr1: Salpingitis (an inflammation of fallopian tubes is a gynecologic condition. If female it is a gynecologic. Kidim kalnachewu...like.PID, ovarian abscess The other is typhoid typhus perforation. The patient came with abdominal pain, vomiting and diarrhea if not treated on medical side for typhoid for seventh day or typhoid perforation come after one week, after one week, the typhoid perforation is surgical condition, so other differential is typhoid perforation for right lower quadrant pain, so mindi new we have three or four differential. Appendicitis, ureter colic, intestinal TB lihon yichilal, typhoid perforation lihon yichilal. Male eee... we are restricting our self to male. If she is female, we can list other condition ... the listed one mallet new. It could be an ovarian abscess, PID, eee..Ectopic pregnancy, torsion, and so on. So, **good history doesn't need us to think these ayidele? Ahun yeteranachew hula bezih history wusit metirat inchilalen because you didn't include the negative and positive statements,** for example to rule out ureter colic how to characterize the pain, how was the pain of the patient? How you characterize pain? The main thing in the surgery is characteristic of sudden on set. On set sinil sudden characteristic lihn yichilal or prominent lihon yichilal or progressive lihon yichilal.

Duration: bekenat yemigeletsu lihon yichilal, be samint, be month lihon yichilal. The other is site, actual you said abdominal pain you can put the differential of all the abdominal organs

ayidel? you have to be specific that right lower quadrant, pain, is that epi gastric is that, left upper quadrant, is that left lower quadrant, hypogastrum, or right lower quadrant, so site . The other characteristics of the pain is that burning, colic, excruciating, which type of pain? What was the pain observation?

What you asked about the pain? What did he say?

S1:

Dr.1: the history of patient he has said, is that dull, is that burning, is that severest pain big reference in his life? Hiii.... Because the grade of the pain is leading us whether it is ureter colic or other? Ureter colic pain, he will come with unsteady weyim kuchi mallet ayichilim patient. Kuchibel bitilu rasachu aylilachum. Yinferaferral, alga lay yiwetal, the severs pain new because stone new ayidele? Stone silehone ureter tebab new sizega against obstruction contract siyaderg painu betam sever new. Indehimemu tawukowale. Appen ... appendicitis... ihe urinary colic new. Ureter colic sever pain. It is colic, but sever pain. Patient cannot tolerate and otherwise you give antipain because appendicitis kehone antipain ayisetim ayidele diagnosis itin iskemitil. Ureteric colic kehone gin pain characterstiku andegna the pain is sever, the other, it raditing to what? Ureter colic pain the other characteristics of the pain is radiating to... we said site duration, the other is radiation. Is that radiating to the scrotum, or to the back? Or.. Ina ureter kehone wed mid new pain in the right quadrant kale. Silezih pain assess aregalew. Negative Ina positive statement if she was female, what should you include in your history?

Right lower quadrant kehone, mindinew yemitasibut? Right upper quadrat pain of right lower quadrant pain, wediyawu deffertial new maseb yalebachu history lemewused because negative ina positive statement mawek alebachu. Meteyek alebachu.

Huletegnawu investigation new. You have to send investigation. The investigation specifically differential inlikalen. If it is female ... menstruation bright normal Meteyec alebachihu. The other?

S7: eee...uri

Dr.1: bleeding the vaginal... Vaginal discharge.. the other?

S3: History of menstruation...

Dr.1: yes, LNMP or last normal menstruation period, okay others... okay differentialachu.... If you consider PID min meteyek alebachu? Vaginal discharge, sexual history... meteyek alebin ayidele? Set kehone inezih inezihin meteyek tichilalachu. Wendi kehone kidim yalnew defferential alelin. TB kehone ahun ...TB lihon yichilal ayidele? You didn't tell us whether the patient had TB complex symptoms ayidel? What are the TB complex symptoms?

S1: night sweet, weight loss, loss of appetite, peptic ulcer

Dr.1: History inezhin yagatimal ayidele? Silezih igna hulunim ...yasebenew hulunim...inezihin kalteyek beshetawun alagegnenim mallet new. So history sittsifu indeza new. Befit differential maseb alebin. Adegna organochin maseb alebachu painu yalebet area lay. Yet new yalebet bemalet differential maseb alebachu. Rule out lemareg pain characteristics then we can continue the physical examination.

Dr.1: So, okay... tell us the physical examination

S1: eee...Post OP...eee...

Dr.1: Okay tell us what post op is

S1: ine yeseraw ke operation befit new eeee....

Dr.1: History pre op new

S1: awo

Dr.1: patientu...patientun yagegnewu pre op new post op new?

S1: Yagegnewu pre op lay new yagegnewut ahun gin post op new...

Dr.1: tell us the pre OP physical examination.

S1...eeh...eh...General appearance: sick looking...

Dr.11: general appearance acutely sick looking okay... okay what did you see after general appearance?

S1: Vital sign...

Dr.1: okay, tell us the vital sign

S1: vital sign ... Blood pressure=120/67 millimeter mercury, pulse rate=110 ee...m, temperature 36.2c0...eee..HEENT I think normaleee... H EENT normal

Dr.1: Normal? What is normal mean?

S1: normal mallet HEENT is normal

Dr.1: what did you see on HEENT of the patient? Min Aye? Patientu minun new yayew? Tsegurun new?

S1: uum....malete... um... head lay yeminayewu neger...eee...

Dr.1. U...m particularly this is not trauma patient aydel ayidelem? Acute appendicitis indale, HIV indale eee... indale min tayale Ke HEENT?

S1: eee...eeee... conjunctiva

Dr.1: yes... conjunctiva Whether it is pink conjunctiva eee..., sclera... ectrous mayet alebih that is ecteric or non ecteric... the other Vomiting linoro yichilal ayidele? Min min new tadiya yayehewu? Dehaydration mayet inchilalen ayidele? Ayin mayet alebin. Is it sunken? Mouth mayet alebin whether it is dry or dehydration. HEENT be wanamet anemic new wey? Yinegirenal ayidele? Dehydration new wey? Dehydrated new wey? Okay continue

S1: eee...eee... tenderness on the epigastric are and left right quadrant.

Dr.1: Where is your left lower quadrant? Left lower quadrant yet new?

S1: eee... I mean right. Right eee... left lower quadrant...

Dr.1: Left lower qudrant new tenderness yeneberew?

S1: Awo ...u.m... right..

Dr.1: where is your right lower quadrant on your abdomen? Is the patient tenderness in the right side, left side or both side?

S1: both side...ee.. right side

Dr.1: so when you do abdominal physical examination, what are the components of abdominal examination?

S2: Inspection, auscultation, percussion and palpation... inspection ...eee..large.

Dr.1: u..hu. Inspection any previous surgery kale, the other is?

S4: Prominent vein..

Dr.1: Prominent vein is more of medical...movement with respiration.... That is moving.. why it is not moving with respiration because of peritonitis. When inspired and expired the abdominal organs could touch the peritoneum ayidel, so it elicit pain, so he will be rigid. He will not inspired on the abdomen. He will have shallow breathing instead of ...We have.... Mejemeriya distention ale wey, scaphoid, flat mayet alebachu abdomen stented new ... weyis flat weys scaphoid. Present with abdominal distention, intestinal obstruction become distention aydele? Adeгна ihe new. Huleteгна movement with expiration new. if it is moving with expiration or not. The other?

S5: Scar

Dr.1: any surgical scar. Abdomen yetu gar new yeminiserawu physical examination sinsera

S2: diaphragm

Dr.1: Diaphragm wust new ayidele sinsera? Ke midterm menesat alebin. The other any swelling in the iguana area epigastric ...and hernia sayitoch mayet alebachu. Inezihin inspection lay inayalen. Next, ke inspection ketilo

S6: palpation

Dr.1: Palpation! Palpation new yemiketlew?

S5: Auscultation

Dr1: inspection ketilo auscultation?

S5: yaa

MD1: what is the reason behind?

S5: because of the pain the can't give the chance to do the others because of the pain.

Dr.1: okay, Auscultation min min tisemalachu?

S5: Abdominal sound

Dr.1: Bowel sound, bowel sound up sound. Yaw grade alew ayidele up sound iske amidst? Iske 40? Less than five iske arat iske amidst ...whether bowel movement present or absent mallet new?

The other ke auscultation ketilo?

S7: palpation

Dr.1: um?

S7:

Palpation

Dr.1: palpation, so during palpation min min finding linoren yichilal? Palpet

S2: Organomegaly

Dr.1: Organomegaly palpate madreg inchilalen. Okay...

S4 and S6: tenderness, mass

Dr.1: Mass inezihin...ina.... Keza bohala min keren?

S5 and S6: Percussion

Dr.1: percussion lay min min notice mareg inchilalen?

S6: ... tympani...

S5: organomegaly

Dr.1: actual it is more of wed palpation new yemiyadelawu ...palpation bilen percussion geban ahun. Liver actually liver the other

S6: splenomegaly

S3: superficial new weys deep new palpation lay?

Dr.1: Ahun auscultation lay new ayidele huletum ale gin. Ahun acute abdominal pain lay min min ale? Tenderness ale. The other

S6: eee... if there is nausea...

Dr.1: the other is tympanicitywun mawek alebin. ... Obstruction linor yichilal. The other fluid collection. Fluid collection be percussion new.... The other ... percussion lay ascites lay

yemiseru alu ayidele. Fluid ... silezih iyandandun yemitiserut purposeful honachu new yemitiserut mallet new. Zim bileh... yeminayewu zim bilen ayidelem mallet new. Abdomenin sinay alama alen. Kidim yalnachew arat amidst negerochin check lemaderig new inj zim bilen ayidelem. Palpationim auscultationim specific purpose inayalan mallet new. Silezih andi patient mind new yalew direct new. Tenderness rasu direct new it describes ayidele? There is direct tenderness, there is rebound tenderness ayidele? Palpation lela rigidity yalew ale? Peritonitis yalew patient rigidity new yeminorew. Yante patient mindin new yeneberewu.

S1: Min lay?

MD: palpation lay.

S1: ..re..re...rebound ..eee.ee...m

Dr.1: rebound neberw right lower quadrant. Rebound neber? Direct alneberewum?

S1: alneberewum. Awo

Dr.1: so, yaw you have history, you have physical examination ayidele? What specific physical findings did you think of appendicitis as the top differential? Um?

S1:-----

Dr.1: Appendicitis lemalet physical examination lay min magignet alebet?

S5: There is signs when we

Dr.1: one we have to stand systematical ayideia? Uum... from vital sign min linagegn inchilalen

S5: Temperature is...ee...h...

Dr.1: if the temperature is raised ayidele? Tach cardia is one of the clinical findings. The other fever if he is tach cardiac fibrin you think of infection okay So vital sign lay huletum... Other is abdominal finding yileyal. palpation lay min linorewu yichilal

S1: eee...ten... Tten...

Dr1: Direct and rebound tenderness linorew yichilal mallet new. Andegna right lower quadrant. There are other signs that we should do ayidele? [Appendicitis new lemalet leloch yeminaderigachewu physical examinentionoch alu ayidele?](#) Min min nachew? Iyerus?

S2:

Dr.1: Appendicitis new lemalet ahun kaweranew betechemari min min tiseraleh? Physical Examination

S2: Painu wedet radiet indemiyaderg.

Dr.1: Isuma awurten cherisenal. Physical Examination... Ine ahun ...on the emergency the patient came with right lower quadrant pain, you are suspecting appendicitis what signs physical examination lay min minoch inishet mareg alebish appendicitis as your top deferential diagnosis?

S2.....

Dr.1: and direct and indirect tenderness ale ayidele? Others..... Do you know Rovsing's signs tawukalachu? Rovsing's sign when you palpate left lower quadrant, left lower quadrant palpate argachu, if he feels pain on the right side, that is called Revising's sign. You are palpating right lower quadrant if he feels pain on the lower quadrant it is appendicitis. When you palpate and release it if he feels pain we call it rebound tenderness aydele. Then, tenderness direct Ina rebound yeminilewu, direct mallet sinchani yalew pain new. Rebound mallet sinlakewu yemisema pain mallet new. One of acute appendicitis sign is Rovising's sign new. The other sign is ...the other is Psoas sign tawukalachu? Psoas.. psoas ... you know psoas muscle? Where is psoas muscle? Uum?

S5: right lower...Qudrant

Dr1: actual it right lower quadrant. Appendix position alat ayidele ilium, post ilium, sub secal, limpho secal meat positionoch alut ayidele? Surgical kehone palpate minamin sinaderig interateralen. So, other sign position lalawu ina lela sihon, lela ine lela sign linorat yichilal psoas kehonech,... psoas muscle lay tafalech, even, limped yehonech in normal any wey stretch the psoas muscle lamesion silalewu sign yisetal . Silezih soas muscle Ina elicit lemadireg indet trgotalachu? Sewuyewun on the left side tastegnutina, leleglawun igrun kef adirgachuhu wede jerbawu, yane if she feels pain on the right lower quadrant, we call it psoas sign positive. The other third sign, sositegnawu sign mindi new? If it is pelvic appendix, umm...Obturator yemibal muscle tawukutalachu? Obturator muscle degimo sinekawu, obturator sign elicit madireg alebet. Be jerba tastegnutina , igrun tatifalachu, pelviku lay mallet new. Andi igrun ihegnawu

indetezerega ihenin tatifu ina wedezih tisibuna gulbetu lay tadergalachu. Keza internal rotate sitadergu ihegnawun if he fails pain, we call obturator's sign positive. Silezih sint signochi ayenewu? Sost min min anachew? Rovising's sign indet new yemitagnewu?

S6: by touching

Dr.1: Ummm..?

S6: by touching the right quadrant

Dr.1: If you palpate the right lower quadrant the patient will feel pain in the left quadrant or right quadrant?

S6: left quadrant

Dr.1: The other is psoas sign yalnachewu extending the right leg mallet new be left astegnitachu right. The other obturator's sign degimo bejerba astegnitachu, internal rotation inezih signoch techemar physical examination nachew. So if history, physical examination tells iskeahun min atan? We are not sure by the way if the appendicitis clinical diagnosis or especially young patient history ina physical examination diagnose yeminadergewu new ways be laboratory, beimaging, diagnose binadergewu yishalal? So, it is a clinical diagnosis. Appendicitis male patient young appendicitis is clinical diagnosis. Unless otherwise Lela typical yalihne milikit asayito kalihone besteker extensive yehone investigation aysfeligim. Silezih to say clinical degimo kesewu sew yileyayal ayidel? History, physical examination. There is slandered to diagnosis appendicitis. What is that? Name for appendicitis. Score insetalen ayidel yeseranew physical examination kutir kutir insetew Ina ke kutir belay appendicitis mesirat aymekerem Altera sound mesirat kekutiru betach degimo ayidelem appendicitis whether it is medical thing itin new lemalet iscore alen ayidel? What we call? We have score for alpharado... alpharado score componentu history, physical examination ina ke laboratory CBC bicha new yemifeligewu. Silezih, adegna history lay kidim yalayenew history lay appendicitis physical histriwu linegiren yichilal?

S6: Projectile vomiting

MD1: Appendicitis lemeterter projectayile ayidelem because obstruction ayidelem. It is not projectile vomiting. Anyways appendicitis vomiting yan yakil frequent ayidelem. Adegnewu vomiting the other? Anorexia. Nausea, fever, silezih inezin meteyak alebachu because iskore

yeminsetachewu, inezihi anorexia, nausea, vomitingiin score linsetewu new. Silezih, kee history nausea ina vomiting andi alachewu, anorexia and alewu mallet new. Andadi yisetewal patientu. The other physical examination fever score alewu. Direct tenderines hulet alewu. Rebound tenderness andi alewu. Fever one alewu. Laboratory, CBC, hulet ayinet new. CBc Inayalen. The other silezih if it is greater than ten thousand, la WBC two insetalen. Left nutrofic kalew ke CBC degimo andi insetowalen.Hulum sitidemiru asir yihnal. Ke asiru, greater seven kehone, appendicitis new. The other kea Amist jemiro iske sabat yalutin probable appendicitis yemehone chance alewu. Greater seven kehane Lela investigation ayasfeligim. Male kehne ayasfeligim. Ke amist iske sebat kehone probable kehone alterasoun yasfeligal. Four ina keza betach kehone shifting of other differential mallet new ke appendicitis yilik think of other differentials. You have to investigate for other differential. There is albarado count is clinical does not ...so if you say this return to the investigation. SO le appendicitis sinisera what investigation do you send for appendicitis?

S2: CBC

Dr.1: CBC. The other

S6: RH

Dr.1: CBC bilenal. CBC new other kidim benegernachewu scoring...greater than seven highly likely alewu. Less than seven kehone gin albarad score, you have to sed ultra sound.

The other, female patient bitihone min min tilakalachu? Female organ in the right lower quadrant bizu differential alewu. Kidim yeteranachewu diferencialoch alu. On females we have to rule out gynecologic condition. So, ultra sound lay min litay yichilal? What is the size of appendix? When we says appendicitis on ultra sound? Ultrasound lay appendicitis alewu bilen report lemaderig min min bemayet new? Ultera sound lay k 6 ml belay and the other expression menor alebet. Non comprehensible mehone alebet ultrasound. Ultrasound greater than six millimeter non comprehensible feco lihone yichilal aydele? So, what is the next, after we do history, physical examination the situation we have got has been appendicitis, you are in the emergence what you have been the patient with the appendicitis?

S5: surgery

Dr.1: how do you manage?

S6: surgical management

Dr.1: yaa, surgicaj management pertinent new ayidele? From encial, fron final mininaregiletalen?

S3: NPO

Dr.1: yes.. NPO Taregalachu, maintenance fluid taregalachu. The other, the patient came appendicitis what physiological treatment do you have?

Practicale rexample... fluid aregachu, NPO aregachu... it infection new ayidele? Antibiotics lay madireg alebachu. Antibiotics lay taregalachu. Keza, the definitive management of appendicitis is mind new? Surgery prepare mareg alebachu. The management of appendicitis is surgical. Sile appendicitis Lela tiyake alachu? Yaligebachu? Gebitachewal ahun appendicitis patient bimeta, ahun ihe yekidimu history doesn't tell us whether it is appendicitis or obstruction yihun, TB yihun pancreatitis metirat tichlalachu...eee... liver abscess because adegna kidim yalkuachu pain characterize madireg alebachu hulumin neger. Huleteгна hulunim new rule out yeminaregibet negetivina positive statement menor alebet mallet new. The other physical examination clear cut yehone appendicitis kalen le appendicitis yemiyasfelig menager alebachu. He has right lower quadrant direct and rebound tenderness, rovsing's sign tayalachu positive or negative, psoas sign positive or negative, obstrtu's sign positive or negative? Yaa sihone ymiyasibewu clear yihonal. This is definitely appendicitis mallet yichilal. Silezih appendicitis Lela tiyake? Yalgebachu?

S7: izih lay umbilicus ... likeset ayichilim?

Dr.1: if it is umbilicus, why we talk right lower quadrant?

S7: ay and patient ale iza surgery yetederegelet mallet new, kezih iske izih

Dr.1: appendicitis new? Is the patient appendicitis. Now specifically appendicitis? Gebtachewal ahun?

S6: what is the cause?

Dr.1: what is the pathophysiology of appendicitis? Pleasewhen you came to the bed side tell each other the topic and read it otherwise you know discussion yemigeба yehone neger ayiteh bitimeta simple new otherwise ine bicha biyawera waga yelewum.

Observation Two: Round

Subject: Gynecology

Bed: 2/3 GAYN Ward

Date: /10/2/2022

Department: PHO and midwifery

Year: 4

Number of students: 12

Time: 02:35:36--- 02:55:45

Code of instructor: Dr.2

It was in the Gyn ward where students trained to apply the knowledge they have obtained from classroom lectures or in their health educational progress to the diagnosis and treatment of the pregnancy or birth related of the mothers in their real professional careers. The practice takes place in the hospital ward at the GYN bed side of the patients. The students firstly clerk the patient. Clerk means take case history, conduct a physical examination, hypothesis the possible diagnoses and managements. However, the problem is the patients are Amharic, or Afaraf speaker whereas the internship students should write in English and present to the clinical instructo. Hence, students are forced to interview the patients in Amharic or Afaraf, but they discuss and present the case to their supervising doctor in English.

S2 presented S2 presented the round section. He presented the demographic history, chief complaint and HPI.

S2:chief complaint is preeclampsia

.....

Dr.2: First of all what do you mean by chief complaint?

S2: ee....e.....m....

Dr.2: this is your patient. 'Ahun akerebik ayidel', so what is chief complaint?

S2: Eee...eee Preeclampsia.

Dr.2: HAHAhhhh....Atasikegn. him... chief complaint means the reason why the patient sick care or came to the hospital.

Okay, why did you say pre eclampsia for this lady?

S2: eee 'malet'.....

Dr.2: Okay what is your diagnosis?

S2: Preeclampsia

Dr1: when did you diagnosis: how do you diagnosis preeclampsia?

S2: Blood pressure.

Dr.2: Okay raise BP?

S2:-----

yes.

Dr.2: okay, how do you diagnosis Preeclampsia,? 'Simih man new'? iiiii...?

S2: ii...? _____

Dr.2: How to diagnosis Eclampsia?

S2: eee...m by doing blood pressure

Dr.2: 'Tinatina discuss argenal iko. Neberic ayidele', So how do you diagnosis preeclampsia?

S2: Eee.... BP= >140/90, with 6hrs measurement there times or..... Eeee....eeee.... >160/110 in a single measurement. Ee.....eee.....m e.....

Dr.2: No, how do you diagnoses eclampsia? The teacher asked other student?

S3: Okay, Based on the temperature, Urine protein eee.....m

Dr 2: Urine protein Okay.....

S4: headache eee.....m

Dr.2: Uum... severity of headache. You have to mention the type and duration. First of all how do diagnosis preeclampsia?

S4: Based on HTN after that you ask duration of gestation

Dr.2: yes, hypertension plus 20 weeks of gestation and you can defined hypertension okay at least the systolic 140 and the diastolic 90 and above okay plus protein urea after 20 weeks of gestation and hypertension should be measured at least two measurements okay, hhh...iph..haaa.. at least in four hrs. apart okay. This is diagnostic criteria. And the other exceptions for this diagnosis criteria if you have blood measurement of severe range that means the systolic is 160 and the diastolic is 110 and above okay plus sever features. Sever features 'yalnachew degimo mindi new' cerebral and visual symptom with sever head ache which doesn't respond with normal routine an alje six like paracetamol and diclo asprin 'lihon yichilal' okay? And h...hi...hiiihi.... blurring of vision, visual lowers like scotoma, eee...okay... double vision 'lihon yichilal. The others okay epigastric pain, if there is discomfort in right upper quadrant pain.... If there is palm edema like dis leak, like respiratory distress or elevated liver enzayim which indicate end organ damage 'ayidelem' or renal failure at least the keratin should be above 1.1 'ayidel'? 'inezihin negeroch bilenal' okay? With this parameter plus only blood measurement of sever range we can diagnosis at protein urea. 'Silezih... at.. ihen inde bezik mawek alebachu' okay? Eee.....'lelaw.. betam simply new.... yeteredahut neger minim atanebum mallet new. U...m or you are busy with something else u...m ' 4 samint new yalachut bearatsamint indethih yemitikelidu kehone' you get nothing, okay?

Dr.2: How do you manage preeclampsia?Management of preeclampsia

S2: Terminating the pregnancy.

Dr: Um...hu? How do you manage preeclampsia?

S5: If it is term deliver, if is mild by waiting with term, and if it is early term eee....ee or 33 to34 for week of gestation giving dexamethasone for lung maturity as the lung is matured at 34 weeks of gestation.

Dr.2: There is no classification like sever, mild, moderate ‘minamin yembal neger yelem tebabilenal ayidele? Okay? They are two. We can classify preeclampsia with severity feature or seniority feature okay, so we never know which patient develop severity or which patient develops complications current ‘yalew huneta ihe new ish’?, so by the time of your assessment okay based on the features we can classify preeclampsia with severity feature and without severity feature okay, so based on severity especially sever preeclampsia can be should be admitted and patient with preeclampsia without severity feature can be followed as outpatient, but everything should be written and put them down okay? But physically at least a week okay must be followed and organ condition, CBC should be always Updated Okay?

Dr.2: so, how do manage preeclampsia with severity feature?

S6: eee... first should be admitted eee...eee....eee

Dr.2: Yes, you should control the hypertension...pathophysiology... okay the endothelial cell... Okay the other?

S7: eee...m delivery

Dr.2: Yes, the key management for sever preeclampsia is delivery because the all pathologic e...ee...em process is due to the placenta okay the trophoblast, so if you remember placenta, the pathophysiologic cascade of preeclampsia is PROM ‘silezih’ deliver but okay if there is ‘lemisale’ gestation 33 to 34 ‘lay deliver bitaregu’ what could happen?

S6: the fetus can servive, but the kidney damaged.

Dr.2: Okay, the kidney damaged, but the fetus can survive ‘ayidele’? So for the survival of the fetus you should wait for some time ‘ayidelem’ eee...’silezih’ first we should control the hypertension the other we control seizure ‘ayidelem’? The other for the other for lung maturity of the baby, corticosteroid ‘insetalen’ which is dexamethasone. To control the patient’s hypertension for the first time we use the kind of ... first we start with methyldopa if we can’t control the hypertension, She may seized, she may develop trauma okay, so the pregnancy should be terminated. The other is for the seizure magnesium salphate for 24hrs every 4 hours that means 6 dose...eee ‘isun kecheresin bohala’ dexamethasone for lung maturity ‘insetalen Ish’? Every 48 hours depending on the mother if the fetus is normal condition we can push the pregnancy to 37 week of gestation eee... if there is any complication, at any time, terminating

‘ayidele’? Kidim yetebabalnew mindi new? The key for preeclampsia is delivery ‘new aydele’? ‘Silezih any complication kale deliver ‘inaregalen’. Despite the gestational age, If the mother develops preeclampsia one thing if she **have** uncontrolled PB (blood pressure) also one thing that is another indication for termination. But if term or 37, 38 week ‘lay bitagegnuat’ it is delivery new ‘ayidele. Admitted to the deliver ward ‘keza induction injemiralen’. The other is if the mother develops palmar edema liver enzymes that is exaggerated above 5 times ‘kehone, it should be terminated. Okay?

‘Lela clark yaregachut’ patient ale? Lela case “yante mindi new”?

S7: eee....e...eee.. AP....

Dr.2: APH?

S7: Ummm.. (but not ready to present)

Dr.2: eee...m ‘indet new yemitiketilit’? please le nege bedenib tezegajitachu nu’ 11 nachu ayidele tekefafilachu yerasachun responsibility wesdachu nu.

Appendix –N: Sample history sheet documents of the patient in a hospital ward

A Sample history sheet document 1 written by a health professional

History of Present Illness (HPI)

This is a 70 years old known CKD patient for the past 1 years known HTN pt for the past 14 years known cardiac pt for the past 14 years on enalapril 5 mg po daily currently presented with cough of 1 week the cough is intermitent and productive with whitish sputum. associated to this she have bilateral leg swelling of the 15 days duration. she also complains of SOB of 4 day duration that occurs at rest. she also have orthopnea of 2 pillow, PND and easy fatigability. she also complains of urine colour change dark yellow in type of the same duration. and urine straining of the same duration. otherwise no hx of FEVER no hx of medication D/C no hx of palpitaion no hx of yellowish discoloration of the eye no hx of easy brusing no hx of vomiting she came with invesigation wbc 14 THOUSAND WITH NEU 89.0 LYMPH 4.7 HGB 13.2 HCT 37.3 RBC 4.2 RDW CV 14.4 MCV 88.8 PLT 190 ESR 9 MML U/A PROTEIN +2 KETONE -VE GLUCOSE -VE PH 6 SG 1.025 LEUCOCYTE +1 WBC MANY RBC 0-2 CREATININE 2.6 BUN 69 TROPONNE 105.7 BORDER 8-29 ABDOMINAL IUS SMALL RT KIDNEY + URINARY RI ADDER DIVERTICULA

Recent Admission history

Past medical or surgical history

non

A Sample history sheet 2 written by a health professional in a medical ward

History of Present Illness (HPI)

This is a 34 years old male patient presented with road traffic accident of one day duration. he sustained the accident while he was travelling at a far regional state to re establish the damaged health sectors during the war the accident happens when the driver is unable to control the speed of the car because the bottled water interferes below the break. there was a total of six travelers and the car rolls back once and there is no death. he sustained the accident around his neck and head and his left shoulder. otherwise no hx of loss of consciousness, no hx vomiting, no hx of bleeding/ x-ray was done and shows mid clavicular fracture

Recent Admission history

NONE

Past medical or surgical history

NONE

A Sample history sheet document 3 written by health professional in a GYN wards

Grand Father አድራሻ Address
 Region ክልል
 Kebele ቀበሌ
 House Number የቤት ቁጥር
 Bed No የአልጋ ቁጥር

Ward Number የክፍል ቁጥር
 Diagnosis of Admission ለገባ የሀመም ሁኔታ
 Diagnosis of Ascertained የተረጋገጠው ሀመም
 Condition of Discharge የሆስፒታል ሲወጣ የነበረው ሁኔታ

Inevitable Abortion

Referred ወደ ሌላ ጤና ድርጅት ተልኮ
 Date ጥቅምት
 Abandoned ጠፍቶ

Signature of Dr የተቀበለው ሀኪም ፊርማ
 Discharged By ያሰናበተው ሐኪም
 Sign of ward Nurse for discharge የመኝታ ክፍል ሃላፊዎ ነርስ ፊርማ ለመውጣቱ
 for discharge if required ለመውጣቱ /አስፈላጊ ከሆነ

of Admission የገባበት ቀን *7-4-14*
 of Discharge የወጣበት ቀን

if ward Nurse for Admission ተ ክፍል ሃላፊዎ ነርስ ፊርማ ለመግባቱ
 if sign for admission (if required) ከተፋ ፊርማ ለመግባቱ/አስፈላጊ ከሆነ

የአንድ ቀን ክፍያ ብር Amount per day in birr	ብር Birr	ሣ Cts

of day Admitted የቀን ብዛት
 Examination የፍጥነት ምርመራ
 Examination የፍጥነት ምርመራ

A Sample History sheet 4 by health professional

DUBTI GENERAL HOSPITAL
HISTORY SHEET

3/10/20 Kesha Age 36 sex M
Bed No _____

tc

SM

Dr (M) - Breast (a - 11)

Plc - DO USC, bleeds
group B + m

- breast Adub

BOW. system

- bacterial given for

Diarrhoea scat no blood present

Dr. Manoj Kumar
Surgeon

A Sample history sheet five by health professional

DUBTI GENERAL HOSPITAL
HISTORY SHEET

Tomina Abdv Age 30 sex F

Bed No _____

Date _____


etc: Abdominal pain ant duration..

HPP - this is 30 years old G-V para IV
mother who does not smoke her last
last claim to be Queen to - in last
Gest presented with abdominal
- Abdominal pain
- Blatent flat pain
- Last fatigability

Old G2 new parts
Vital BP = 100/80 PR = 94
Heart - Point cost normal
Rx clear chest is good sized
vs. and ear well placed
Abd: 7/10k fixed grand 2/10k
- FHK Positive

A Sample history sheet six by internship student

PATIENT FORM
MEDICAL RECORD NUMBER 000273


 MINISTRY OF HEALTH
 NEPAL

NAME Parvati Devi **AGE** 10 **SEX** Female

Date (DD/MM/YY)	Notes
20/09/2018	<p> History: patient has been suffering from recurrent attacks of weakness, dizziness, and blurred vision since childhood. The symptoms are more frequent and severe during periods of stress and menstruation. There is a family history of similar symptoms. </p> <p> Physical: normal. </p> <p> G/A: normal, heart healthy (normal), VET: normal, no abnormal sounds. </p> <p> Anterior: normal. </p> <p> Present: mild chronic anemia, all clear chest, CVS: normal, no murmurs, Ausc: normal, no crackles, eyes: normal, Ict: normal, URS: normal, CNS: normal. </p> <p> Plan: symptomatic treatment with iron supplements. </p>
	<p> Prognosis: good with proper treatment. </p>

Note Encounter notes must include:

1. Main diagnosis, Written as Main Dx: followed by diagnosis, according to the judgment of the Provider (free diagnosis)
2. Other diagnosis, if any
3. HMIS disease classification, written as HMIS Dx: Followed by diagnosis corresponding to HMIS disease classification, on single line at end of notes. This classification be the same as the Main Dx or based on the Main Dx. The HMIS Dx must be assigned by the health Professional who sees the patient. The HMIS Dx must be written clearly in capital letters.

Dr. [Signature]
 20/09/18

A Sample progress sheet 8 by health professional

AFAR NATIONAL REGIONAL STATE
HEALTH BUREAU
DUBTI GENERAL HOSPITAL
PROGRES SHEET

_____ Hospital No _____
_____ Rad No _____
_____ Age _____ Sex _____

_____ Admission Date _____
_____ Admission Diagnosis _____

te

5- OPC
- Rt knee joint pain - Lt knee joint pain
- Rt shoulder 1 sm + pain
- Lt knee joint pain
- Lt Nerve

Rx - Continue analgesics
- Appoint after 01 week

Impmpt

Rx - Indometacin 25mg po tid #10
- Neurobin 1 tab qid #30
- Dolo Cell Bid #10
- Appoint after 01 week

A Sample operation note by health professional

Cared no. 243666
Date: 30/01/2011

Dubti General Hospital Operation Note

Patient name Moumita Vinay Age 23 Sex F
 Surgeon Aschaw. G. Assistant _____
 Anesthesia SI Anesthetist Mubant
 Runner _____ Scrub Nurse _____

Pre-operative Dx hernia rx + protruded c. diaphragm
 Post-operative Dx post. Op. hernia

Procedure hernia was seen
1st incision was made with wound + taken
from the middle, c. diaphragm was taken to major
of side SA and was seen by post. Op. for
cut and done post. Op. in case.
JOE used for fixation
Dr. V. S. was seen to suture
hernia 2-3 cm (P) and c. diaphragm 2-4 cm
which is dangerous diaphragm pieces were seen
plugged with by suture, piece of paper
cut by two but not removed was seen
and a diaphragm piece was seen in suture
hernia to Rung. Done in suture.

Name of surgeon Aschaw

Appendix-O: Sample Interview transcriptions of the students

Individual Interview Transcriptions

Interview one

Date: 07/04/2022

Place: SU staff lounge

Starting time: 03:53:31 PM

Ending time: 04:25:31 PM

Name of interviewer: Tessema, G

Method of interview: face to face

Participant/Key informant's code: S1

Transcription of interview with S 1

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my PhD dissertation. Are you voluntary to provide me the required information?

S1: Yes, I would like.

R: Your voice will be recorded.

S1: Okay.

R: What were your expectations of communicative English language skills courses?

Expectations of contents such as reading texts, Vocabulary, grammar, speaking, listening or writing in terms of addressing your academic needs?

S1: okay expectation regarding the thing you have mentioned, my expectation was, I was thinking that I would have become a good listener as well as a good speaker, but in my opinion I didn't get with anything.

S1: I don't know it could be the lecture or the teacher that has been giving us the course. He didn't give us the way we wanted to be given.

R: what were you want, for example, in terms of listening what did you want to listen?

S1: we want to listen a good conversation, interesting ways of teaching, but he didn't use. It was tracking unnecessary English that was not understandable by students.

R: What problems or difficulties did you encounter in your academic study due to your ability in using English language?

S1: I don't recall it. They have been normally teaching us. I don't recall it if there was any problems, but I understand that they didn't give us knowledge gaps we needed.

R: Did you think that the course meet your English language needs?

S1: Definitely not.

R: Why?

S1: Because like I have mentioned earlier, even the credit hours has been very short and I think we didn't use properly.

R: How efficient were the courses in addressing your English language needs?

S1: I couldn't call it is quiet efficient eee... but they have tried what they could do.

R: How are the tasks, activities, and examples in the course materials match with your field of study?

S1: Uuuu....m I don't know, I don't think it is a kind of English prepared exclusively thinking for medical students. They have been giving this courses as a general English grammar rule for students, so I would not call it specifically assist medical students.

R: But do you like if the courses were related to health science students?

S1: Yaa, definitely

R: Okay, Would you tell me what you like and do not like about the current communicative English language skills course materials?

S1: I couldn't recall it as it has been four years ago since we took the courses, so I don't recall it.

R: Do you believe that your university/ College has created favorable environment which considers the enhancement of you English language learning? Why?

S1: No.

R: Why?

S1: Like I have said before, I don't even think that the department has sorted enough the necessary thing that we supposed to get from this courses.

R: Would you like to comment or add anything?

S1: I think the college or the medical institution should need to take a time and like to do researches so that the medical students could get more interested in learning this courses. I think, in my opinion it needs to prepare new courses regarding medical students.

R: thank you very much.

Interview Two

Date: 07/04/2022

Place: SU staff lounge

Starting time: 04: 10:21

Ending time: 04:42: 31

Name of interviewer:

Method of interview: face to face

Participant/Key informant's code: S2

Transcription of interview with S 2

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my PhD dissertation. Are you volunteer to provide me the required information?

S2: Yes, am

R: Your voice will be recorded

S2: No problem.

R: What were your expectations of communicative English language skills courses?

S2: Ihhhh...what I expect from English language courses is it must meet ...ihhhh...
'Yemawurawun atahut'.... Okay...I expected it create a society.to communicate in English.

R: Your expectation in terms of, for example, as PHO or health science student:

S2: As health science student English course doesn't help as because the normal English word and the medical English word they are literally different...eeee...r.

R: so, is it beyond your expectation?

S2: yes, it is beyond my expectation, it is not medical English which help future medical students

R: Okay thank you, what problems or difficulties did you encounter in your academic study due to your ability in using English language?

S2: Okay, there is a difficult to present or do assignment and to communicate with teachers because medical English words literally different from normal English words. Uuu...m so it has a difficulty.

R: Okay, Thank you. What did you went from the course?

S2: From which course? From English course?

R: yes, from the English courses you took as freshman.

S2: What I want from the English courses was eee...m the course must meet its aim. 'Ayidelm?' Firstly, the teacher must be from the western because they know what to teach very well. They know how to pronounce and how to explain because they understand...

R: what from the course, specifically please?

S2: The course it must be easy and clear for students

R: Did you think that the course meet you English language needs?

S2: No, it doesn't. im...

R: Why?

S2: May be from emm.. What was the question? Hhhhhhh....

R: Okay, Sorry: Why did you think that the course didn't meet your English language needs?

S2: why it didn't meet our need is that because they are not books which can help to communicate with other and the teachers are also not better.

R: Okay, How efficient were the courses in addressing your English language needs?

S2: English language regarding in the health is that?

R: yaa

S2: It doesn't efficient. It is not efficient

R: Okay, How are the tasks, activities, and examples in the course materials match with your field of study?

S2:It doesn't match with our courses.

R: Would you tell me what you like and do not like about the current communicative English language skills course materials?

S2: I think a don't like at all

R: hhh..uum, Okay. Do you believe that your university has created favorable environment which considers the enhancement of you English language learning?

S2: It does not because think there are no English books which are related with our field of studies and the teachers are also.... They do not have a good performance. I think these are the problems I can mention.

R: Would you like to comment or add anything?

S2: ey...what was the question

R: Would you like to comment or add anything?

S2: Okay, the current communicative English course must contain some medical words eee...r because if it includes medical words, it make easy for the students understand their study. U...m enough

R: Okay thank you very much

R: Thank you too. 'Ehhhh....abelashewubih...hhhhh.... interview arige alawukim.'

Interview Three

Date: 07/04/2022

Place: SU staff lounge

Starting time: 05:05: 37 PM

Ending time: 05: 35: 04 PM

Name of interviewer: Tessema, G

Method of interview: face to face

Participant/Key informant's code: S3

Transcription of interview with S3

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my PhD dissertation. I would like to provide me the required information. Your voice will be recorded. Are you Okay?

S3: Yes, I am okay.

R: What were your expectations of communicative English language skills courses?

Expectations of contents such as reading texts, Vocabulary, grammar, speaking, listening or writing in terms of addressing your academic needs.

S3: I expected from English language to speak English language with others. I expect from English course so many things. I expect to know pronunciation English. IF I know pronunciation, I can speak and write with others that is my expectation.

R: what specifically expect from reading, vocabulary, speaking etc.? For instance what vocabulary do you want?

S3: AS you know it is international Language, I can tell you so many things, so please your question?

R: I am asking your expectation, for example, if you expect medical English or general English or others.

S3: Okay, if you know the meaning of English words.....Your question please?

R: I mean did you expect, for example, general Vocabulary or medical vocabulary:

S3: I expect genera vocabulary, I don't to limit the vocabulary to the health only why because it has broad use so that I want to know all vocabulary. If you know general Vocabulary might use to solve so many problems so that I want to prefer general vocabulary..

R: What problems or difficulties did you encounter in your academic study due to your ability in using English language?

S3: Well there is so many problems in using English why because we can't Communicating with others ... please your questions? Sorry.

R: What problems or difficulties did you encounter in your academic study due to your ability in using English language?

S3: there are so many problems that expose me to speak English in academic wise. There is pronunciation problems which make me stressful when you are stressful, you get problems to learn academic wise.

R: What about other problems like grammar?

S3: Before I join to the college, there was no problems in speaking English, but after I join the college, I faced problems of English because you can't use English with others or with your friends why because it is specified. The lectures are cannot teach in English why because they are exposed or intervene in speaking in Amharic this may affect you to speak English.

R: so, specifically what are your problems or can you tell me your problems?

S3: so, well. I think can tell you many problems as you want. I have no problems of vocabulary or grammar. For grammar you can study simply tenses, so simply. My problem is pronunciation which make me stressful.

R: Okay: Did you think that the course meet your English language needs?

S3: The course I took was important, but it doesn't meet my academic needs.

R: How efficient were the courses in addressing your English language needs?

S3: Please, again

R: How efficient were the courses in addressing your English language needs?

S3: It has demerits or weakness why because you know the English lectures aren't voluntary to explain or to teach so many things. They give the highlight of the English course and they may rush to finish the course as that time it not sufficient.

R: How are the tasks, activities, and examples in the course materials match with your field of study?

S3: I am sorry, please try to ask me again because I am disturbed.

R: repeated

S3: I think it doesn't match. Hhhhhh

R: Do you believe that your university has created favorable environment which considers the enhancement of you English language learning?

S3: I think our college is not enhancing or increase the ability to speak English, so don't expect this.

R: Would you like to comment or add anything?

S: I can comment so many things.

R: okay.

S3: Because some ... yaa lectures are not volunteer to teach in English. The students are not want to learn English and so lectures and students have t speak English.

R: English instructors or others? Why are they not volunteer?

S3: I think you know. I think language problems

R: what problems do you think the question I asked earlier?

S3: The tense problems, grammar problems or the word problems. If you don't know the words you can't speak English. If you don't know the tenses you can't speak English. These are present with many students, so my comment is this

R: Okay thank you very much.

S3: Thank you too.

Appendix-P: ELT (Communicative English Language skills) instructors' interview

Date: -11 /04/2022

Place of interview: SU English department

Starting time: 8:13: 31 AM

Ending time: 8:49:10 Am

Method of interview: face to face

Participant/Key informant's code: ET1

Transcription of interview with ET 1

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my PhD dissertation. I would like to provide me the required information concerning English language needs for health science students from your experience in delivering English courses for health science students. I have been informed that you have delivered communicative English skills II of the current course materials recently. Your voice will be recorded.

ET1: It doesn't matter.

R: Okay, thank you. My first question is how important English language is to health science students in their academic studies?

ET1: Thank you very much for giving this opportunity eee... basically not only for health science students, English language is very important for any sort of academic purpose. Particularly, it plays paramount importance, especial in their future careers. As you know health science students are very outstanding students eee... may be in the context of this university they are outstanding students. They want to do more in their future career, especially in their future professional activities because after they graduated from university, they will do work related to their profession with English language, so English language eee... very dual purpose, especially for achieving good academic status as well as their future professional career, so English language in this context play very important role in both academic and future professional life.

R: Okay, do you think that English is important to your student in their future professional careers?

ET1: Yaa. Right.

R: Why?

ET1: Eeee... yaaa because one language is the means of communication they need to communicate as eee... for example, taking students learning health science, they are going to diagnose some problems of eee.. Patients and the like they need to communicate within English, so they use language in this communication in order to collect, in order to record, in order to diagnose, in order to do some related activities. So it is very important.

R: Thank you. My next question is how do you find the students' interest in the communicative English language skills' course?

ET1: Normally, they are very interested with English, but eee... the type English they need might determine eee....r how they are interested. Eee... really, English plays very important in their academic as I said earlier and future professional careers, but what type of English they are interested in might be another question that we need to focus on. Accordingly, in their future professional careers eee...r what type of English they need is I think this communicative English may not touch their interest, especial in their future professional careers because as I told you earlier, these students are very outstanding students, and the generally prepared communicative English courses might not fit with their interest or demand or needs because eee.... Not prepared for health science students' needs eee....rather it was prepared for general purpose of eee...any freshman or any department students of higher institution.

R: So, what did you observe from the students?

ET1: Eee..... good question. Students need to relate what type of English they need to their professional careers because they are learning this for their future professional careers in order to be very successful in their academic and professionals careers they need to focus some eee....very important points, especially, this language, for example, the major course they are taking regarding, for example, the health science students regarding their major courses they do have their own objectives. These major courses help them with their professional careers. In the same way, this English language should help them in their future professional careers. Eee... in order to do that every and each language they are learning here should be inter related to what they are going to do after graduation, so in this way eee...the materials were not prepared inline of that, so eeee.....more or less these students might be not very interested with the English language courses, particularly, communicative English courses generally given to these students.

R: Really thank you very much. My next question is eee.... Do you think that the contents of the course are relevant to the students' level?

ET1: Eee, yaa more or less what I said already because the content eee.... Doesn't match with the students' needs. The basic points that we need to focus is the content. A content, if the content is interrelated with the students' needs and demands eee... nothing is eee... needed. Since the contents do not match with students' professional need they do not me students demand, so un related.

R: what about the contents to their level, for example, you said earlier that they are outstanding students compared with other departments.

ET1: Actually, there is a difference between health science students and other department, but more or less if we compare health science students with other department students, they are really very outstanding students.

R: What makes them out standing?

ET1: I am saying outstanding in sense of language competence in general, even, if they might be evaluated in other competences like other major course or whatever, but when I evaluate them in terms of language capacity, eee...they are more or less better than others.

R: Why do you think this happens?

ET1: This might one when they are recruited may be, for example, students prefer health science more than particular department they ought to do more, so the students who perform well might got health science students as your first or second choice is given to you based on your GBA or grade, so department delegation is primarily the criteria they need their grade, so students who agood Grade join the health department. Most clever students or who have good grade have good English background you see because English is the basic for others subject too.

R: eee...m okay thank you. Are the tasks, activities, and examples in the course relevant to the students' field of study?

ET1: eeeee..No ...eee... because as I mentioned earlier the contents of the course not related with the students educational career because as I told you the material is generally prepared, So, both, communication one and communication two generally prepared. So, communication two doesn't benefit particular department or particular student. It is very general. As a result, eee....the activities, tasks whatever, activities in that material doesn't particularly related to the health science students' professional careers.

R: Do you think that the courses help to enhance the students' communication abilities in their academic studies and future professions?

ET1: Yaa... eee.. more better if it is just related with their educational careers, it might be better achievement for students, but in this way as it is it may more or less improve students' 'communication abilities in general, but in particular in health science, I don't think it adds much more.

R: What problems of English Language do you think your students have while doing activities in English language skills' courses?

ET1: Eee....m may be in this case, the students are not interested with the course eee...m I think they under estimate the course as it was not what they are expecting, what the are thinking to learn specially in their what they expect in their future professional career as well as to improve the other academic eee...ee... achievements they do have their own expectation and need, so this general course doesn't much within their expectation as a result it may be the problems. Students under estimate this particular course as a result such problem might become from the course they are taking and what they are expecting in the course.

R1: Thank you. You are saying they are outstanding students. Eee...m can tell me problems you have observed from your students specifically?

ET1: Yaa. In terms of skills may be, for example, us they underestimate the course, they never much involved in the course because as a result they think that they know what is stated in the course have been given for them and as much they are not interested to be involved more in that course, especially, in tasks, activities given in the course. They are not more motivated to be involved because I think they think themselves as they knew it. I think it doesn't create a sense for them. As a result their participation or involvement is very less.

R: Okay, they behave as they knew it, but have you observed particularly the problems in terms of skills?

ET1: The major problems eee...right there are so many skills in those communicative eee... four basic skills and sub skills particularly vocabulary and grammar uuu....um more or less in listening eee....r in listening there are some problems. Especially listening, regarding this eee... might be that might be the background of what they have been learned in lower grade may be. On other like vocabulary and speaking they really outperform. Their problem might be regarding listening skills.

R: Okay. Thank you. Imm....ta what problems do you face while delivering the courses to health science students?

ET1: Large class, but it is not such affecting factor, there are some problems regarding that eee....m and the other is students' interest and thinking that why I am delivering the course.

R: Thank you. I am on the way of finishing. Eee....m does the university play any role in specifying the course material in terms of the students' or the institute's English language needs?

ET1: If so it was good because students want to learn what are interested or needed to learn, but eee.... in the current curriculum implementation situation it is harmonized, modularized and the same course eee... is being given some elsewhere in universities in Ethiopia. For example, what is given for health science students is the same with what is given somewhere in all universities in Ethiopia. Since the curriculum and the syllabus is the same the university doesn't run to prepare another course to fit the departments' demand of health science students. So, I don't think that police will give the opportunity for university to prepare such like courses because it is monitored by eee... ministry of education. Eeee.... And it is harmonized and uniformed from eeee....m ministry of education across universities.

R: Eee... I think it is challenging fer example in the context of Samara University, it is different from others in many aspects, for example there are many turnover of instructors and they are almost fresh instructors.

ET1: Yaa, but the police the same eee... how implement the police may be different. If it was prepared for student it was very good and students need that, but we are not in a position of doing like that.

R: Do you like the harmonized system?

ET1: No, no, if it is not harmonized, if students are just learned whatever they are interested in . Students need this one, for example, X activities or Y activities, but we are teaching Z or other. So if we teach what students expected of us that is very interesting.

R: Do you use technology to increase students learning in the classroom?

Ei1: Uuu..m yaa almost eee...we don't use, but students themselves use , for example, students use channels like you tube in order to for example, what is being taught by the teacher might be just downloaded by the students from some web site or some YouTube and they can practice accordingly. So, students are being visit more from technology's, but I do not much bring technology in the classroom, but in the future I will try because it benefit the students.

R: Would you like to comment or add anything?

ET1: eee...mm yaa especially on the curriculum, what is prepared at federal, or ministry of education might not fit students demand, so in the future if the course especially English course. Language is everything because unless they understand the language, they do nothing in their future careers, so first they need to clearly understand the language then they discharge their knowledge in the future, so they need to get the language they expect, they need their interest and motivated to do, so if we prepare, if we design course, especially, the English language course which fit their demands will benefit more students and teachers better, so what I want to emphasize is this point.

R: Thank you very much indeed.

ET1: thank you too.

Interview transcription two

Date: -11 /04/2022

Starting time: 4:05: 15 PM

Ending time: 4:33:17 Pm

Place: In his office

Method of interview: face to face

Participant/Key informant's code: ET2

Transcription of interview with ET2

R: How important English language is to health science students in their academic studies?

ET2: Oo...w...Very important.

R: Why:

ET2: This is clear. Eee... in Ethiopian higher institution English is used as a medium of instruction. Eee...m... if you ask me for health they are one of them. Each and every activity is conducted in English, even, they need more than the other as they are expected to read more.

R: Do you think that English is important to your student in their future professional careers?

ET2: Absolutely.

R: Why? Eee...m let alone for health science students, English language is used for all professional careers, but if you ask me for health, really very, very crucial because when I go to

hospital or clinic for my personal case or others I often observe doing every activities in English. I wonder why Professionals use English in health center and why it is not translated to Amharic or local language like other sector.

R: How do you find the students' interest in the communicative English language skills II course?

ET2: Ee...m to tell you the fact they have no interest why because they think that it only benefit them for their grades e...e....and they think that they had mastered it at high school. Especially, natural science student particularly engineering and computer science and all health related students are really good at English and and they think that they have mastered at their high school.

For your surprise, eeee.....I have got two or more students who scored above 90 without attending the class. I gave them NG because of lack attendance, but later I blamed myself if they scored such result really eee... what was the purpose of learning. You see why these students suffered in the classroom? They could be appreciated for outperforming without learning in the classroom. This really needs to research hahhhaa..... Okay eee...r then, I asked them evidence and gave them later though the evidence was not convincing. Therefore, what you know from this that they do not get eee....nothing from learning the communicative English courses.

R: Do you think that the contents of the course are relevant to the students' level?

ET2: No, I don't think eee....e because as I mentioned earlier they were scoring greater than 90 without attending the class. This tells you many thing. There is also topic at the end of the course which ask student to tell their reflections of the course. Most of them explained that the current English courses do not fit University students.

R: Are the tasks, activities, and examples in the course relevant to the students' field of study?

ET2: No, never. Because eee....you see not only for health science students, is not relevant for eee...m for all natural science students. I have taught both communicative I and communicative II for all natural science students. For example, in communicative English language skills II, only the first unity might be related to students field of study because the title is study skills, and the listening text advices the students how to listen to the lecture, so in addition to developing listening skills , students get additional knowledge of how to attend the lecture. Eee...the reading text is reading for study and advise how to be effective in reading. Learners are very enthusiastic

in this unit, but not for others unit. Similarly, in communicative English II, only unit two is directly related to their field of study eee... because the topic is speculation about the future of science. Eee...the reading passage is Grassroots attack in bilharzia. It explains that an African researcher has made history in using eee..... Pesticide eee.....from an indigenous plant eee.....m to combat bilharzia. Particularly, it discusses, the work of Dr. Akililu Lema.

Eee.....m you see here, I can observe two things. One it is about Ethiopian researcher who made history. Next, it tells about disease which everybody wants to know. Eee...eee... here I remember how students were interested in reading the text, and doing the activities. I remember how students reacted to one question which asks the reason why malaria's vector considered 'democratic' by the author. Eee...ee... eally you asked me good questions. Here, I often remember how they explained the process of democracy and life cycle malaria's vector. I myself didn't understand the way they understood and eee....e.e. m I learned a lot from them. In short, here I realized that student do more if it is related to their background and field of study.

Eee...m the other important point I forgot is the course say communication, but no communication activities there. The speaking section instruct to discuss on some issues or words in the passage. Besides, the writing section also eee....m simply order to write a paragraph in both courses, but do not say anything concerning writing. I myself teach them how to write paragraph and parts of the paragraph. No Essay at all I don't know why they excluded an essay writing.

Eee...m I don't know eee....m I myself don't like the current course materials. I prefer the old course material rather, because you see in communicative course material module I, students learn self-introduction and introducing others and bilabial... that is communication for me. Then, the second course materials is Basic writing skills course. It teaches students from word to an essay...ee... really I liked it, but the current ones...uuu...m I don't know...um that is all.

R: Eee...m thank you very much. Really. You gave me ample information. My next question is do you think that the courses help to enhance the students' communication abilities in their academic studies and future professions?

ET2: eee...No because I have answered above. Eee...for example, as I told you earlier, only a unit of communicative skills were related to their field of study and they are interested in reading and doing comprehension. However, the activities are not prepared inline of preparing students intheir field of study. Eee... for example, if the speaking section was about docters and patient

relationship or about investigation of the disease rather than simply saying discuss about eee..Endod or bilharzia, and eee...I wish if the the writing section was about research writing which help them eeee...eee... in their field of study rather than saying eee...eee.... Write a short paragraph on endod as a pesticide, the lesson you learnt from Dr. Akililu or local herp. Thank you really, eee....this is what I felt during delivering the course.

R: thank you too. MY next question is what problems of English Language do you think your students have while doing activities in English language skills' courses?

ET1: eee...m eee... they have no problems on doing language skills, but listening skills is a little bit challenging for them. Eem...I can't say they had problems of lack of skills, but they lack interest in doing the activities eee...m according to the instruction of activities in the course.

R: What problems do you face while delivering the courses to health science students?

ET2: ee....As I said earlier student has no interest to attend the English class unless you take attendance, they don't come. Eee... this may raise questions in your mind. You see... you suspect yourself if student might dislike your method of course deliver, or knowledge eee eee... bilabila.... . Other problem is the current course is not suitable for me as well as for students. As I have seen from the cover page, they are prepared by famous instructor eeee..... Professors of Addis Ababa University, Bahir Dar University and Jima University, but I don't know I don't like it. For example, large text and there are some activities inside the text without finishing the text. I wonder why they added activities inside the text, ee...students are also not interested, so I jump most of them. There are also some instructions I jumpuu...m because of not understanding their objectives. Eee....even the materials di not compiled well. Their many errors which I don't remember to tell you know.

R: Does the university play any role in specifying the course material in terms of the students' or the institute's English language needs?

ET1: Now, no. Before, course were prepared by our instructors in our university context depending on some objectives of minister of education, but eee....m know is harmonized and prepared by ministry of education I think.

R: Do you use technology to increase students learning in the classroom?

ET2: Eeee.....m no because the nature of the course doesn't invite us.

R: Would you like to comment or add anything?

ET2: No I have said a lot, but I prefer if the course will be prepared by instructors in the context of the university as well as in the context of some department based on some guideline from the ministry of education.

R: Okay, really thank you.

ET2: It is my pleasure.

Appendix- Q: Sample transcription of the health practitioners' interviews

Date: 12/04/2022

Place: In front of outpatient department (OPD) office

Starting time: 04:14: 02 PM

Ending time: 04: 35: 04 PM

Method of interview: face to face

Participant/Key informant's code: HP1

Transcription of interview with HP1

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my PhD dissertation. I would like to provide me the required information concerning English language needs for health science students from your experience in delivering health care system. I have been informed that you have worked here for more than five years. Your voice will be recorded.

HP1: No problem

R: From your work experience, do you think that English is important in your day to day professional activities?

HP1: Definitely, yes.

R: Why?

HP1: because all the things we does in hospital or the information we exchange in medical work place is in English. Medical terms and all medical words are in English too, so it is very essential to know eee... skills we can communicate and we rule out the thing that Our seniors, or colleagues saying, so it is basic to know English language. Nearly we exchange all information in English, so we need to...eee... I think it has to be Very important.

HP1: Umm... Okay, do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital?

HP1: Yes, I believe.

R: How

HP1: Because I feel like when every your senior or eee... your superiors tell you to do something on English, you miss this thing because of this barrier language, so I believe it has contribution eee....I believe it has effect.

R: How often do you use English in your professional career?

HP1: should I characterize by time, by how or what?

R: How often means eee... is it always, sometimes, often or rarely?

HP1: In work place, yes, it is always.

R: For example please:

HP1: For examples, when ever you do some rounds, whenever you exchange with some seniors, whenever you take some orders, when you instruct some nurses, the thing done is communicating with English. SO, I often use English unless and otherwise I have annual leave or some other weekends.

R: Do you think you and your colleagues use correct English?

HP1: No I don't think. As you can see even me I also have some barriers or I also have some deficiencies

R: Do you think that having a fluent command of English language is important to be successful in health profession?

HP1: It depends. If you are perfect in speaking or taking order or writing or eee... listening or whatever it is on speaking staffs, if you are perfect, I believe that you can take any idea that your superior is telling you. I believe that it has some effect, but I don't think it can indicate some one's knowledge or I don't believe that this is the estimation of some ones knowledge, Or I don't think that talking this language would be the total indication of total perfection of health.

R: What do you do with English in your professional career?

HP1: Uuu...m mainly I do communicate with it mainly I do take an order from my superior like senior physicians, whenever we do something with staff we do this language. I also give to my inferiors or who performs under my supervision I use English. Mainly I take order from my superiors as they often love to use English.

R: but do you understand with each other with English?

HP1: eee.... Almost I can understand to precise 98%

R: Okay: Which English language skills do you use mostly in your professional activities?
(Listening, speaking, reading and writing)

HP1: we use all of them, but mainly, I believe it is reading and writing. As I Have mentioned whenever you take some order, when you took some bedside, when you make seminars and when you make medical discussions, so mainly, I believe on speaking as well as writing. Writing is one of the expression that we exchange with others for example, with attendants, with patients when you prescribe some medication, when you report any medical cases you use Writing in English. So I believe with writing and speaking

R: What about listening?

HP1: Listening too.

R: what kind of Listening?

HP1: round listening eee...Listening rounds, lectures, and seminars as well as some of my patients. There are some foreign patients you know.

R: Have you encountered foreign patients...?

HP1: Yaa

R: Sure...!

HP1: Definitely,

R: Do you communicate with English?

HP1: Sure. For example I had patients from Arab, from Gambela as well as from Sudan the use perfect English. The love to communicate in English because they are not perfect in Amharic. In addition, to this there are some staffs who came from abroad, for example, we do have a lot of orthopedic, surgeons who came from Sudan as well as America.

HP1: By the way do you understand each other with the foreign professionals or foreign patient and treat accordingly?

HP1: Definitely, it is not quantum physics and English is something that you should know in lower grades, so I believe I understand unless there is some barriers about the accent or something.

HP1: What problem do you or other colleagues encounter while using English at your work place?

HP1: Uu...m I feel like most of medical professionals feel insecure while using English when the nature of the work forced them to use English.

R: Can you specifically tell me problems encountered in your work because of lack of English language Knowledge or skills?

HP1: Definitely, but is the time enough to tell all of them? For example, if I am senior physician, considering that you know English or considering that you know English, I order you many things, but you don't understand and you can make medical errors. Even, most of the reports don't indicate whether past or present because of the grammar errors or vocabulary errors. This could led series damage on patients you know. It could be bad out come on patient.

R1: please can you specifically tell me what language problems cause what medical errors?

HP1: I believe grammar, vocabulary, and sometimes pronunciation. There are some professional eee....m some medical staffs who do not understand the thing written or the thing you put down on paper, so I believe that they can understand medical terms, but there will be a gap of Vocabulary as well as grammar eee...m even, mispronunciation will led eee..... Some into some medical errors.

R: Can you tell me some of the medical error created because of mispronunciation?

HP1: eee...m there some similar terms that are characterized by grammar, eee...m I couldn't recall them, but there are some mispronunciation. There are a lot of staff that cause errors.

R: If you are asked to put language skills 'importance in your professional activities in order, how do you order them?

HP1: Okay, eee....m writing, reading, speaking, and then listening

R: Which English language courses did you take as a student in University or college?

HP1: Uuuu.....mmm writing skills and communication skills?

R: Are they helping you in your current profession?

HP1: I don't seriously think that they are helpful for our health professions because what we learned was not related to our work. I got nothing from sitting in the English class, so I don't total believe in that, but I developed my medical English after starting the work by watching different movies and by watching YouTube while foreigners teach health within English. The teacher seem unqualified in English. If you asked me for the course, uu...y it has nothing to do with our fields by the way. The English they teach were general English. It was general English that I learned in high school, so it didn't help me.

R: so, w what measures do you think should be taken to improve health professionals' English language skills to be effective and efficient in their professional career?

HP1: I think it must be worked on teaching English or encouraging people to speak in English or make them feel secure when they use English as well as teaching them proper vocabulary,

grammar or other that related or used in health profession or medical terms. I think there must be some exclusive English course regarding medical students.

R: Would you like to comment or add anything?

HP1: Uuu...m I think I have said it all.

R: Okay, thank you very much.

Interview Two

Date: 12/04/2022

Place: In outpatient department (OPD) office

Starting time: 04:40: 08 PM

Ending time: 05: 15: 05PM

Method of interview: face to face

Participant/Key informant's code: HP2

Transcription of interview with HP2

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my PhD dissertation. I would like to provide me with the required information concerning English language needs for health science students from your experience in delivering health care system. I have been informed that you have worked here for more than five years. Your voice will be recorded.

HP2: No problem

HP2: my name is HP2. I'm health officer. I have 10 years' of work experience in health eee...m...

R: From your work experience, do you think that English is important in your day to day professional activities?

HP2: Yes, yes, yes, so many....

R: Why?

HP2: Because it is important for writing, for referral purpose, for written English language, so manty.

R: Do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital? How?

HP2: Yes, it is nice ማለት for service provider it is important. For anything English language because we are Using English language. Because all things written in English language: treatments, diagnoses, assessments all things eee... laboratory investigations written by English.

R: Okay, Do you think that having a fluent command of English language is important to be successful in health profession? If no, why? If yes, how?

HP2: Yes, we are doing so many things: we are encountering foreign peoples and other peoples, intellectual people so many things.

R: uu...m okay, how often do you use English in your professional career?

HP2: uu...m... It is important. ምንም ጥሪጥሪ የለውም. በጣም ጠቃሚ እንደሆነ we always use English. We write in English always from history up to laboratory investigation and treatment written by English language.

R: What do you do with English in your professional career?

HP2: Yes, we do everything....everything... we write name of the patient, age of the patient, sex, address, eee...m diagnoses, all things are written in English.

R: What problem do you or other colleagues encounter while using English at your work place?

HP2: Eeee...eeem foreigners are sometimes coming here we cannot communicate with them by English language because we have no greater hours in which we have learnt English, so we learned three or two credit hours ...grammar....communication....

R: So do you prefer if extra courses will be added?

HP2: Yes..., yes....

R: Which English language skills do you use mostly in your professional activities? (Listening, speaking, reading and writing)

HP2: Ok... writing, reading, and speakingrespectively?

R: Which English language courses did you take as a student in University or college? Are they helping you in your current profession?

HP2: Yes, it is important.

R: What measures do you think should be taken to improve health professionals' English language skills to be effective and efficient in their professional career?

PH2: Uuuu....m the measures are first the curriculum will be changed or researched or studied. After that eee....m the university must work on it for the language....eeem.. so....

R: Thank you very much. Would you like to comment or add anything?

HP2: Yes....the curriculum must be changed.

R: thank you very much indeed

PH2: No problem.

Interview Three

Date: 15/04/2022

Place: Under five emergency department office

Starting time: 04:40: 08 PM

Ending time: 05: 15: 05PM

Method of interview: face to face

Participant/Key informant's code: HP3

Transcription of interview with HP3

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my Ph.D. dissertation. I would like to provide me the required information concerning English language needs for health science students from your experience in delivering health care system. I have been informed that you have worked here for more than five years. Your voice will be recorded.

HP3: No problem

HP3: I am HP3. I am working in Dubiti general hospital eee...under five emergency. I am health officer, Okay....

R: From your work experience, do you think that English is important in your day to day professional activities?

HP3: Yes, very Important.

R: Why?

HP3: due to day to day activities ላይ ያዉ prescribe የምናረገዉ በእንግልዘኛ ነዉ. ኣንዳድ ጊዘ ዶክተረ ጋረ ለመንጋግረ ነዉ. ኣሻሚ ንገር ካለ ለመንጋገር ነዉ. ኪልያንቲ ላለማስጨነቅ የሚንጠቀመዉ እንግልዘኛ ነዉ. To write everything we use English, but we use Amharic for oral communication.

R: Do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital? How?

HP3: yeah, effect አለው. መግባብያ ስለሆነ ጋይዶችን ለማንበብ ሁሉንም ስራችን በ እንግልዘኛ ስለምንጽፈው በጣም ወሳኝ ነው. ግን አፋረ ላይ እንግልዘኛ የለም አከሰሱም የለም. ምንም የምጋብዝ ነገር የለም....ማህበረሰቡ የምጠቀመውን ላንጉወጅ ነው የምንጠከመው.. የምንግባባው ሞር አፋርኛ ና አማርኛ ነው. እንግልዘኛ ግን በጣም ወሳኝ ነው.

R: How often do you use English in your professional career?

HP3: eeee..... we sometimes use in speaking, but we always use in writing,

R: Do you think that having a fluent command of English language is important to be successful in health profession?

HP3: eee.... በደንብ eee..... already ተናግራለው. አንድ እዝ ቦታ ላይ ብዙ clients ነው የምጣው. እንግልዘኛ ተናጋርም ልመጣብህ ይችላል.

R: መጠብሻ ያቃል እንደ የእንግልዘኛ ተናጋር?

HP3: አዎ አስቶርጋም እንጠራለን. አልፎ አልፎ ደግሞ እነሱም የምረዱ ናቸው ና ዶክተር ይመጣል ያናግራቸዋል. እንግልዘኛ ተናጋር ስመጣ ዶክተር አጠራለው እንጅ ብቻየን አልሰራም. አሱ ከነ የተሻለ ነው. ተጋግዘን እሱ ያልገባውን አነ አነ ያልገባኝን እሱ ተጋጊዘን ነው የምንሰራው. እንጅ የእንግልዘኛ በጣም ችግር አለ. ብናውቅ ደስ ይለኛል ግን ለዝ የምጋብዝ ነገር የለም

R: What do you do with English in your professional career?

HP3: eeee.....eee.....

R: በእንግልዘኛ ምንድን ነው የምትሰሩት

HP3: የምንሰራው eee....prescription የምንጽፈው በ እንግልዘኛ ነው. Vital sign ምናምን በ አንግልዘኛ ነው.. የሚጻፉ ነግሮች በሙሉ በ አንግልዘኛ ነው. አነ 5 ዓመት ሞልቶኛል እና መጻፍ ይሻለኛል ከለላው.

R: Which English language skills do you use mostly in your professional activities? (Listening, speaking, reading and writing)

HP3: Writing.....more አኛ የምንጠቀመው writing new. የምጋብዘንም እሱ ነው. ቦታው ላይ ማለት ነው.

R: What problem do you or other colleagues encounter while using English at your work place?

HP3: Eee.... e.....eee.....eee

R: በመስራታችሁ አንች ወይም ይሲራ ባልደረባችሁ እንግልዘኛ ችግር ስተቀሙ ምን ችግር ያጋጥማቸዋል

HP3: ምንም ችግር እነን አላጋጠመኝም.ለምን አንደኛው አዝ ቦታው ብዙ ተናጋርው ስለማይኖር የምያሰቸግረው ተናጋርው ሕዝብ ጋረ ስትቀላቀል ነው

R: ርፈር ወደ እናንተ ይመጣል?

HP3: አዎ ይመጣል እናነባለን ግን ጥሩ አይጽፉም እሱማ አንዳንድ ግዘ ለመላክ ብቻ ምንጭር ምንጭረ አረግው የመምጽፋልን አሉ ግን አኛ እንደ ርፈራል ሆሰጥታል አይደለም. እንደ ጀነራል ሆስፕታል ስለሆነ ሁሉንም እንደገና Vital sign አንስተን እንደግና history ወስደን እንደገና investigate አርገን ስለሆነ ይህን ያህል ተጽኖ የለውም. በእንግልዘኛ ችግር የተነሳ ጥሩ ርፈራል የምጽፍ የለም . እንደገና እንጽፋለን እንድሁም ከጻፉት ጋር የማይገናኝ ይልካሉ፤ የጻፉት ሁላ ካለው ከዝ የማይገናኝ ይመታል. እንደገና ስለምንሰራ ችግር የለውም.

R: Which English language courses did you take as a student in University or college? Are they helping you in your current profession?

HP3: No

R: why?

HP3: መጀመርያ የተመረጡን ግዘ የሆነ ግዘ የመጀመርያ አንድ ሳብጀክት አንማራለን ከዛ ቦታላ ምንም ሳብጀክት የለም በእርግጥ. ራስህን ለማብቃት ላንጉወጅ ላሻሽል ብለህ ካላልክ ድረስ የምጋብዘን ነገር የለም.

R: What measures do you think should be taken to improve health professionals' English language skills to be effective and efficient in their professional career?

HP3: ዓዎ መሆን ያለበት እነ እንደምለው ኮርስ ብሰጥ አሁን አንዳንድ ትረንጎች አሉ አንድ ትረንጎግ ብሰጥ

R: Would you like to comment or add anything?

HP3: ሀሀሀ.... ኮመንተ እኸ ነው እንደ ትረንጎግ ተደርጎ ላንጉወጅ እንድጠናከርልን ብደረግልን ነገር ብኖርየምመጡትንም ጋይድላየን ተረድተን በደንብ ዓብላይድ እድናረገውም አንሆናለን. እንግልዘኛ መልመዳችን እንደ ስልተና ብሰተን ጥሩ ነው. አብደት መሆን ትሩ ነው.

R: thank you very much!

HP3: እሺ!

Interview four: With Nursing in the Dubit Hospital

Date: 18/04/2022

Place: inside the OPD

Starting time: 04:40: 03 PM

Ending time: 04: 59: 06 PM

Method of interview: face to face

Participant/Key informant's code: HP4

Transcription of interview with HP4

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my PhD dissertation. I would like to provide me the required information concerning English language needs for health science students from your experience in delivering English courses for health science students. I have been informed that you have delivered communicative English skills II of the current course materials recently. Your voice will be recorded.

HP4: Okay.

R: From your work experience, do you think that English is important in your day to day professional activities?

HP4: Yes, because by the way, eee... we do all activities in English. For example, I listen to the patient speaking Amharic...eee.. Asking every history of the patient in Amharic, but write social history, chief complaints, case history, physical diagnosis and investigations in English. Then, based on the result, every treatment...or management and to prescription of medicine, I write in English. Eee...then, I tell the patient in Amharic. So very important.

R: Okay, do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital?

HP4: Yes, has paramount effect...I mentioned before in the previous question concerning advantages. But to add another, we often face the similar cases. We often do the same thing... that mean in one area often similar case exist, so you often treat similar cases different patient. However, eee.... Sometimes you get new...eee or unfamiliar case, so if you are in the OPD you have to understand the case by downloading YouTube for management or others...eee..m every

health related is existed in English... so you have to understand English. Even, if you get unfamiliar case you have to report to regional health bureau within English.

R: How often do you use English in your professional career?

HP4: we use always as I mentioned before. Even, I some time ask myself why it is not translated to our language like other sector.

R: Do you think that having a fluent command of English language is important to be successful in health profession?

HP4: Yes, the more you know English the more you are benefited, eee...but you have to know that fluent English without health knowledge do nothing. Good knowledge of health profession without good English has danger for the previous reasons I mentioned.

R: What do you do with English in your professional career?

HP4: Eee... as I mentioned before we do everything:

R: Can you give some example

HP4: if you want me to repeat okay. Ee...m as I mentioned before the first thing we do is history taking. Without a good history, the patient's problem will remain undiagnosed. Eee... you know eee...m 80% of diagnoses in general medical clinics are made based on the interview you make with the patient. All this written in English. We interview with Amharic, but write in English. You can't write without English knowledge. Most professionals including me do not write all. Simply, we understand and write two or three sentence because it takes time to write English because it is English and many patients are waiting you outside. Here eee... the problem is if other professionals treat your patient, it is difficult because he couldn't get full history. Others expected to be written in English are chief complaints, history of present illness, negative and positive statements...eee., past illness, person's social history,eee...family history, systemic review, ...e.eee...physical examination, and management...etc, All this written in English, but we do accordingly is other question...okay?

R: Which English language skills do you use mostly in your professional activities? (Listening, speaking, reading and writing)

HP4: eee...if it is in terms of English, we use writing, then reading, speaking and listening respectively. By the way... you have to know that listening is the most important to diagnosis patient. Eee.. You have to be good listener (emphatic listener) than speaker as health person, but we listen with our language and speak too. Writing is all in all in English and reading too

because you get any medical term written in English you have to read and update yourself as many medications are changed or updated with technology.

R: What problem do you or other colleagues encounter while using English at your work place?

HP4: very good question. Eee.. Problems...eee...okay...ee as I mentioned before we ask patient with our language...Amharic the write in English. Late I tell you my problems first. It takes time to write as told by the patient, so I write few with broken grammar. Here the problems is if other professional treat this patient, he may not understand very well and may treat without enough information this can cause medication errors. For example, there is a research made in Ethiopia. I can't remember the title now indicates 90% of medication error in Ethiopia is caused because of illegible handwriting.

In case of colleagues, let me tell you what I encountered. He was fresh. He wrote stomach ache as chief complaint. I think he said because the patient said 'hoden amemegn'. But in medical term we do not use stomach rather abdomen. Even you can't say abdomen it is too general. You have to ask the patient to show you the place where he got pain and decided as right upper quadrant, right lower quadrant, or left upper quadrant and left lower quadrant ...etc. the other for example, simply, write headache, but you have to ask whether sever or others. To rule out you have to ask specifically and describe it with what you call adjective or adverb hahaha... I forgot it.

Nurses come and asks as most of the time instead of reading what is there because of not understanding English or our problems of writing correct English.

R: what do you mean by medication error you mentioned?

HP4: haha do not you know? Do you know the famous singer, Tamirat Desta, I hope you have information he was died by medication errors. Eee.. ' bezantain yetonsile medihanit lemewugat heado, yeresa maderikiya wegach yibalal'. This may happen because of inability to read what doctor transcribed or transcription of the medicine. So medication errors mean errors made because wrong transcriptions, wrong medication administration record, wrong dose, wrong route ...etc.

R: Which English language courses did you take as a student in University or college? Are they helping you in your current profession?

HP4: uu...y I can't tell you the type of course. But it doesn't help as directly. It was just what we have learned in high school.

R: What measures do you think should be taken to improve health professionals' English language skills to be effective and efficient in their professional career?

HP4: eeee...I think I think it needs new curriculum. In university, or somewhere students should learn all how English language used in health care or hospital or we have to use our language Amharic in health sector like other sector.

R: Would you like to comment or add anything?

HP4: No, it is enough

R: thank you for giving me your time and ample information

HP4: thank you to for giving me this chance.

Interview Five

Date: 19/04/2022

Place: Dubti General Hospital Medical Wards

Starting time: 03:40: 08 PM

Ending time: 04: 15: 05 PM

Method of interview: face to face

Participant/Key informant's code: HP5

Transcription of interview with HP5

R: Let me introduce myself. I am Tessema Gilo. I am conducting research on an investigation into Health Science Students' English language needs for my PhD dissertation. I would like to provide me the required information concerning English language needs for health science students from your experience in delivering health care system.

PH5: thank you for giving me this chance. I am PH5. I am doing in Dubti genera hospital. I am BSC nurse. I graduated from Welo University, Dese Campus. Now, I am working in Dubti General Hospital Medical wards.

R: From your work experience, do you think that English is important in your day to day professional activities? Why?

HP5: English language is very...very... important to communicate in hospital. It is very important in this setting as I think.

R: Do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital? How?

HP5: English language has no effects.

R: You said everything like referral report is done in English. If it is wrongly written, may it not creat problem?

HP5: Medical term ስለምንጠቀሚ ና enterpret ስለምደረግ communicate እናደርጋለን easily

R: How often do you use English in your professional career?

HP5: አብዛኛውን ጊዜ እንጠቀማለን. Most of the time እንጠቀማለን ስራችን ላይ. We use for transcription, prescription ...etc

R; Do you think that having a fluent command of English language is important to be successful in health profession? If no, why? If yes, how?

HP5: አዎ ይጠቅማል. ሁሉም እዝ ያለው ዶክተሮች በ እንግልዘኛ ነው ያለው. ስለዝህ እንግልዘኛ ማወቃችን ስራችን የምያቀላጥፍ ና የምያሳሊጥ ስለሆነ በጣሚ ጥቃሚ ነው..

R: What do you do with English in your professional career?

HP5: eee..eeee.

R: በእንግልዘኛ ምን ትሰራላች?

HP5: አረ... በእንግልዘኛ ብዙ ነገር እንሰራለን. ለምሳሌ Order sheet. በሽተኞች ስሙጡ patient simetu k chief complain iske investigation, assessment isk diagnosis dires medication በእንግልዘኛ እንጠቀምበታለን.

R: Which English language skills do you use mostly in your professional activities? (Listening, speaking, reading and writing)

HP5: Most of the time we use writing. Everything is written in English. Every documentation is written in English.

R: Okay, thank you. What problem do you or other colleagues encounter while using English at your work place?

HP5: ብዙ ቻለንጆች ያጋጥሙናል. ለምሳሌ easily communicate ከስራ ባልደረባ ጋር ልማድረግ ያሰቸግራል. ለምሳሌ Physician order ያረገውን ነግረ አለ. ያ order የምደረገው በ እንግልዘኛ ስለሆነ ያሰቸግራል. የእንግልዘኛ እጥረት ካለ misdiagnosis ልኖር ይችላል. Misinterpretation ልኖር ይችላል. እህ ደገሞ ለጠና በጣም አሰቸጋር ነው.

R: Which English language courses did you take as a student in University or college? Are they helping you in your current profession? If no, why? If yes, how?

Sofumar English. Personally, it helped me. ከ መተዋወቅ ጀምሮ ትንሽ ተምረናል እና ትንሽ ጠቅሞኛል. ብዙ ብንማር ደግሞ ብዙ ይጠቅመን ነበረ.

R: Would you like to comment or add anything?

HP5: እነ መጨመር የምፈልገው... የዉጭ ዕድል እንካ ለማግኘት እንግልዘኛ ያሰፈልጋል. ለጠና ደግሞ በጣም ጠቃም ስለሆነ ትምህርቱ በሰፍዉ ብሰጥ ጥሩ ነዉ.

R: Thank you very much indeed

HP5: Okay.

Interview Six

Date: 19/04/2022

Place: Dubti General Hospital GYN Wards

Starting time: 04:20: 09 PM

Ending time: 04: 52: 04PM

Method of interview: face to face

Participant/Key informant's code: HP6

Transcription of interview with HP6

The researcher Introduced himself

The nurse also introduced himself

R: From your work experience, do you think that English is important in your day to day professional activities?

HP6: little... little... in this hospital eee...m patient and attendant eee... m are not English language speaker. They use their mother tongue language according to their region: Afar region uses Afaraf, Amhara uses Amharic language, Tigray region speaks Tigrigna, so eee....based on that way eee...Afaraf problem is more than English, but eee...m in medical case eee...m work there is problem ... at the nurse level also important. For example, opacity... what do you mean opacity? Just, from chest x-ray result ordered to the nurse, if the nurse doesn't understand opacity, it may cause problem. Opacity means that some air in the... ,So when the doctor says

there is opacity, the nurse must understand the meaning.

R: okay, thank you. Do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital?

HP6: No, because eee...there is a nurse, doctor, senior, doctor, so they together understand fully. They can interpret and understand it.

R: How often do you use English in your professional career?

HP6: Always, eee...m often we use. There are maximum many new medical English words, but eee...I don't construct or make a word, but understand the spoken English eee.... I can Understand, but I have problem to spea.

R: Do you think that having a fluent command of English language is important to be successful in health profession?

HP6: Eee...h at degree level, yes ...eee...m to my understanding any degree may expected to speak English here, but not.

R: What do you do with English in your professional career?

HP6: O...K...Em everything is done in English. Medication in English... Everything is written in English. Eee...eee... eeee... I can say first eee... there is no experience, there is no English speaker...

Which English language skills do you use mostly in your professional activities? (Listening, speaking, reading and writing)

R: What problem do you or other colleagues encounter while using English at your work place?

HP6: Yes, problems. Eee...m problem.... Eee...m I can say no problem at work, but eee... because...eee.. . GB, doctors and seniors will tell us. They know. Though we can't speak English because of lack of experience, eee... the doctors and seniors will tell us. We also understand to some extent. There are some technical medical words. As I told you before, there are nurses who do not know some technical medical words like Opacity I told you earlier, but doctors and seniors know it. Eee... The word I took as example "opacity" mean that when it is seen with X-ray, lung or chest filled with air. Of course now days, no problem, you can look the meaning from your mobile phone on your hand. As the doctors also know this, they do not consider as a problem. There are professionals who do not know these words all in all. I said no problem earlier because either doctors would tell us or we would see from our mobile phone on our hand. Here, our clients are Afaraf language speaker and Tigrigna language speaker. For Afaraf and

Tigre language there many people or attendant can help us in interpreting them. The problem language may be Afaraf, even it is also no a problem because most of them know Amharic. If not, we can easily get Afaraf translator.

R: Would you like to comment or add anything?

HP6: No

R: Okay, thank you very much.

Interview 7: with Midwifery in hospital

Date: 20/04/2022

Place: GYN staff office

Starting time: 2:14: 46 PM

Duration: 33 minutes

Method of interview: face to face

Participant/Key informant's code: HP7

Transcription of interview with HP7

R: Do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital?

PH7: Yes because every reading materials, guidelines and Manuals are available in English

R: How often do you use English in your professional career?

PH7: eee.. uuu.... Always during the work...uuu yes.

R: Do you think that having a fluent command of English language is important to be successful in health profession?

HP7: yes

R: why? MD: I answered in the first question

R: What do you do with English in your professional career?

HP7: to refer from internet and books, to prescribe medicine, to write on the patient chart and progress consultation history.

R: Which English language skills do you use mostly in your professional activities? (Listening, speaking, reading and writing)

HP7: eee...m reading and writing because we listen and speak with Amharic.

R: What problem do you or other colleagues encounter while using English at your work place?

HP7: It doesn't have to be fluent. Uuuy.... Gena new inde? Inde! Sijemer mallet new questionnairun lemin be Englizegna tsafekew? Be ingilizegna memelesu Rasu chenkognal. Lemindinewu inglizegna yarekew? Ihe rasu fetena new. Recordi iyarec new inde ? meche teyekegn? Ihe rasu violetion new.

Be ingilizegna itiret yemote sew alsemawum. Mesirat yalebi ye inglizegna konkowa sayhon, leloch yegna kowankowa new. Ahuni igna amarigna new yeminchilewu gin amarigna yemayichilu bizu patientoch new yemiyagatimun. Bezih yemotum alu. Astorigamiwu rasu amarigna ayichilimina be tesasate terigimo yemutun awukalewu isu lay atiseram neber inde?

R: Which English language courses did you take as a student in University or college? Are they helping you in your current profession?

HP7: Uuu..y ayalkim inde. Communicative English

R: What measures do you think should be taken to improve health professionals' English language skills to be effective and efficient in their professional career?

HP7: so far nothing

R: Would you like to comment or add anything?

HP7: not that much

Interview 8: with Clinical practitioners who taught internship students at Dubti General Hospital

Date: 21/04/2022

Place: GYN staff office

Starting time: 3:14: 46 PM

Duration: 37 minutes

Method of interview: face to face

Participant/Key informant's code: Dr.1

Transcription of interview with Dr.1

Researcher introduced himself as usual

Dr.1: also introduced himself.

R: From your work experience, do you think that English is important in your day to day professional activities?

Dr.1: of course. It is important because we are talking English in instruction eee...m we use also in history taking, in examinations, and also in investigation papers all are written in English, so it is medium of instruction in our working environment. So, English language is essential.

R: Do you think that English language has an effect on the quality of healthcare services you provide in healthcare Centre or hospital?

Dr.1: Eeee...m may not have direct impact on the patient, but since the communication is total in English among the health professionals, all verses are written, histories are written and documented in English, so it affect eee...m the healthcare profession.

R: How often do you use English in your professional career?

Dr.1: Um.....um Often day to day when we take patients' histories and evaluations registered on patients' charts in English.

R: Do you think that having a fluent command of English language is important to be successful in health profession?

Dr.1: I just see English as a language, but it might affect in the level of your understanding and expressing eee... your knowledge eee...ee...m since the issue has so many presentations and seminars that is constructed in English language, it might affect the success of the health professionals in medication uuu...m it might affect the level of your confidence that professional do that ... since the presentation, since seminars have been given totally in English. Having poor knowledge in English, would hinder you speaking in front of the clients with professionals or supervisors.

R: What do you do with English in your professional career?

Dr.1: What we do in English?

R: Yeah

Dr.1: E...m I said before every seminars, presentation, Patient clinical historyeee....m , communications with our seniors, for example, when I want to consult eee...eee... general surgery or interns, I will explain in front of the patients in English. Eee....during screening of wards for specific disease most of us use English. We communicate In English.

R: Which English language skills do you use mostly in your professional activities? (Listening, speaking, reading and writing)?

Dr.1: Ee...m mostly we use writing skills. Eee...m skills like speaking, listening are also....

R: What problem do you or other colleagues encounter while using English at your work place?

Dr.1: It is not our mother tongue it might be. We are not hundred percent confident talking in English

R: Which English language courses did you take as a student in University or college? Are they helping you in your current profession?

Dr.1: I think somehow helped. The eee.... our profession prefers intentionally ...to develop your career and it needs English to peruse this, but it doesn't help us directly to our current health professions as it had no medical related English language skills.

R: What measures do you think should be taken to improve health professionals' English language skills to be effective and efficient in their professional career?

Dr.1: I basically think that English language must be taken as a subject in our stay during our professional study in university ...we develop everything in English, so most of our English Knowledge are general English just scientific name scientific definitions, but this didn't help us to develop just communication skills of our field related grammar or medical language. So, it is better if English is given as a subject including pre- medicine courses ...eeem medical English courses. In pre-medicine courses, which is given in the first six months of eee...ee.... Education medical English should be included as a subject.

R: Would you like to comment or add anything?

Dr.1: On this topic?

R: yes, on English for health science students

Dr.1: Uu...m I have said a lot.

R: Okay, thank you very much indeed.

Interview Nine: with Clinical practitioners who taught internship students at Dubti General Hospital

Date: 21/04/2022

Place: medica staff office

Starting time: 4:21: 46 PM

Duration: 35 minutes

Method of interview: face to face

Participant/Key informant's code: Dr.2

Transcription of interview with Dr.2

The researcher introduced himself

The doctor was also introduced himself.

He is general practitioner in Dubti hospital

R: From your work experience, do you think that English is important in your day to day professional activities?

Dr.2: yes it is very important. As you know, many medical activities are done in English, so without good English skills our performance will be affected or mislead.

R: Do you think that English language has an effect on the quality of healthcare services you provide in health care Centre or hospital? How?

Dr.2: Actually, I don't think because every situation in our hands is enough to communicate with medical skills. They may not be enough to use grammatical rule, but the speech might be informal. Eeee...m Medicine by itself is a language, so we can communicate easily within a simple language. Eee....eee... communication is in a context

R: How often do you use English in your professional career?

Dr.2: Of course, all things eee... if you are in working environment, we use most of the time English language in between the member of medical teams, but eee... we...eee.. Professional individuals to use eee.... with patient, we use our first language, but with medical teams we use English language.

R: Do you think that having a fluent command of English language is important to be successful in health profession?

Dr.2: Yeah...because health profession is a teamwork, so if there is no communication easily, there will be some type of activities eee....m which leads to misunderstandings, so it is very important skill.

R: For example, what kinds of misunderstandings to be specific?

Dr.2: For example, eee... in management, actually, since all we are Ethiopian, we can communicate, or we can share any idea by using our first language, but eee... sometimes, when we don't eee... m explain by chance, someone may do things wrongly. For example, investigation, management eee...any other things that we apply on the patient, if he didn't understand us how we order what to be done for that patient, he may left for that day if that was

not done, the next day the patient is delayed in hospital without getting proper management which is a failure the patient may die even.

R: The patient may die because of misunderstanding the English language?

Dr.2: Actually, we didn't face it in our hospital. I am telling you in general.

R: What do you do with English in your professional career?

Dr.2: we write the history of a patients, we report physical examination of the patient, even, we document by using English on chart of the patient, we send investigation, we write the name of the patient in English, we connect result in English every information of the patient written and documented in English.

R: Which English language skills (Listening, speaking, reading and writing) do you use mostly in your professional activities? Just, would you put in order of frequency of use?

Dr.2: Actually all skills are functional in our profession eee... we read eee... if we don't read, we don't write. Eee...m if we read, we speak, and if we speak, we have to write All supplement each other. We cannot use only a single skill like. Yeah..eee.. When we speak, there is listening.

R: In your profession, please.

Dr.2: Yeah... in our profession. If you understand me, I mean there is a text we read. The text is written in English. There are books of medicine like Harrison, pediatrics. Always we read the text. For example, if you are my patient, and you present your symptoms severe headache, vomiting and such types symptoms. I am going to read the symptoms from these texts and understand them, Then, I share what I read to my friends in our medical teams. That means I am speaking and he is listening, and also I document what I found symptoms, headache and such that. I document that mean I am writing this is what is in health, so all the skills are used.

R: Specifically, what skills are frequently used in your professional setting?

Dr.2: eee...m writing

R: Okay, thank you. What problem do you or other colleagues encounter while using English at your work place?

Dr.2: Actually, we didn't face a problem. As I told you, since medicine has its own language, we understand each other easily.

R: For example, eee... do you get appropriately written English referral paper from other health care or hospital?

Dr.2: As I told you, in English the way of the grammatical rule of the sentences in a medical school may not be correct, but we know the message. We can understand what he wants to say. We can understand because there are meaningful terms in medical terms. Even, I hope those who are eee...eee...are fluent English speaker may not understand the medical terms, so we can understand each other.

R: How can you understand each other without knowing the English language?

Dr.2: What I want to say is knowing the language is the basic, so for example, if someone puts the diagnosis, for example, if I'm saying eee..... he have distributed tumor, this is not correct we don't use have after the singular subject he, but we need the term after this that the tumor has some progression. It is differ and sometimes he may say he has whizz, or he may say he have Whizz, but if he say wiz, we know what whizz is and understand that. We don't focus on the grammar, but eee-...if you upgrade your language, English language in Ethiopia, it is good for all of us for eee...such things, but they are not mandatory.

R: Do you think that the English language courses you took as a student in University or college have helped you in your current profession?

Dr.2: Actually, smoothly it was good to take the course, but the high school lessons are very helpful than the English common courses in university.

R: What measures do you think should be taken to improve health professionals' English language skills to be effective and efficient in their professional career?

Dr.2: Yes, eee...if there is a language college, even, if it is out of an academic practice, for example, everyone who needs to improve this language can learn or can take a class every time. For example, I hope, there is no someone who doesn't need to improve his English language eee...m, so if English language class is established, it is easy. Otherwise, the lesson that is given as a common courses in college cannot meet the language needs of the students.

R: I have finished by know. Thank you very much indeed.

Dr.2. Okay.

Appendix-R: Sample transcription of the major subject area courses instructors' interview

Interview 10: Public Health officer department instructors' interview

Date: 25/04/2022

Time: 02:55:57pm

Place: In Samara University PHO department office

Method of interview: face to face

Participant/Key informant's code: Inst 1

Transcription of interview Inst 1

The researcher began introducing himself as the previous interview' introduction above. The interview also introduced himself.

R: Do you think that English is important to your students in their academic studies and professional careers? Why?

Inst 1: Yes, very important as it is medium of instruction for all the course. I think Very impotent

R: What English language (general English/medical English) do you perceive your students need to pursue their academic study and professional careers?

Inst 1: In my opinion both are important for them. The general one and the medical one. The general one should be important for students to understand other supportive courses for these medical courses and the medical part of English help students to understand medical terms. I prefer the combination of the general as well as the medical one, but more of medical one as English language is everything for health students.

R: Okay, thank you. How satisfied are you with the English language proficiency level of your students? Why?

Inst1: Actually it is both from instructors as well as from the students' problem, so medium. So there is a need of working on that instead of medium.

R: eee.. Okay thank you. What problems of English Language do you think your students have while doing activities in their field of studies?

Inst 1: They have both grammar as well as speaking as well as most of the students can feel, can listen and can understand English, but they have problems when they speak, translate and write, so the grammar, speaking and writing part have deficit. These are the problems as well

R: For example when you say writing, what kind of writing problems have you observed?

Inst 1: In every aspects. There are words they do not write in proper way. They do not use it in proper grammatical way, so they have such problems at all.

R: I observed many classroom including yours teaching health subject matter they usually use Amharic while there are many non Amharic speaker and also the medium of instruction is English. They use words or phrases on the power point and explain in Amharic or use Amharic for discussion. WHY?

Inst 1: As I...explain in previous part, eee... as well...eee the instructor's eeee...we all instructors we have some problems of English and are speaking Amharic in the way of speaking English as well as is fluency as well we are coming to this system. We are in the system of what students are learning or the way students are learning English. We also come in the way of students are learning English now. We are also part of these. Education part, so the instructors as well as the students have deficit in that of speaking as well as writing English as well as listening that of English, so I think it is mandatory since our even if it is instruction is English most of the students cannot easily capture medical terms as well as that of the English easily. So, the instructors should support students by interpreting in Amharic for easily understanding. That is all

R: So, they lack or lack of language or to make it easy for students in using Amharic.

Inst 1: It could be both. Students can't easily understand the language and our deficit of the language.

R: It not my part of research but have you taught that non Amharic speaking students in a classroom.

Inst 1: students in some college as well as in this college, there are non-Amharic speakers even some foreigners, For foreigners it will be easy they managed it by understanding the English part, but for those non Amharic mother tongues of Ethiopians, it is not easily understandable, so the instructor should support them by using English as well as translating.

R: From your experiences of teaching major subject area courses, what are the overall benefit of English language for health science students?

Inst: Eeee...it supports for students as well as for everyone to understand the subject matter easily, but everyone is excellent speaker of English I think is support for the student not only the student, not only supportive, it is mandatory. Eee,, As we said it is medium of instruction for every courses eeee is English . If curriculum is prepared in that way, it think it supports the students to easily understand the subject matter.

R: What do you suggest for the curriculum design you suggested above general English or medical English?

Inst 1: eee... both. If the curriculum prepared for both and more of medical terms English is delivered for students by language experts or person who have English specialty delivering in the part of linguistic I think there are English medical terms in that part of linguistic I think those instructors delivered those courses, it will easy for students to understand the subsequent medical courses for student. Any way I recommend both.

R: Thank you. Would you like to comment or add anything?

Inst 1: Thank you

R: Thank you very much

Inst 1: Esh.

Interview 11: Public Health officer department instructors' interview

Date: 25/04/2022

Time: 04:05: 03pm

Place: In Samara University PHO department office

Method of interview: face to face

Participant/Key informant's code: Inst 2

Transcription of interview Inst 2

The researcher began introducing himself as the previous interview' introduction above. The interview also introduced himself.

R: Do you think that English is important to your students in their academic studies and professional careers? Why?

Inst 2: So..e eee for your first question ...my perception is English is very important for health science students because it has based on, for example, one student could have to speak fluently,

and write in a sense that writing, speaking is very important for health science students. Let say if a student has no fluently speaking, for, for example, if he is in duty, for example, he may graduate from December and have duty as health professional if we say, he may face foreigners, for example, so he or she must be or he should give treatment for the patient. As I have said earlier, foreigners, he or she may not know national language, Amharic, so English is very important in order to ask and understand the situation, the chief complaint of the patient and in all circumstance, so speaking is very important. The other is writing. As you know, that students graduate eee.... The graduation has duty that has scarcity. So, he writes patients history in English rather than in Amharic, so when he writes ... it should be clear writing or spelling of the word should be correct. That means when he writes that fluent or correct grammar, spelling must be understood by other health professional or the staff, so the staff... eee the other staff should understand clearly. For example, spelling may have an influential eee..... for the profession. For example, if he writes medication, for example, if he doesn't know the spelling may be "Chloramfnicon" if he writes unnecessary spellings or other spelling "Chlophenamine" the first is antibiotics and the second is anti-allergy. Though pharmacist understand with their dosage 250 mg and 2mg respectively, it can create confusion on professional as well as on the patient. It has an impact on the patient, it has an impact on other medical profession because he may work in that setting or sheet. So, the student or the professionals have to write perfect spelling..... Writing and speaking are very important.

R: What English language (general English/medical English) do you perceive your students need to pursue their academic study and professional careers?

Inst 2: Okay, eee... both of them are very important. General English is important that is why each and every student starts English the base line from high school and university is general English and that is the base for the medical. Already the medical English will be organized in professional language that the general English is the base for the medical English.

R: How satisfied are you with the English language proficiency level of your students? Why?

Inst 2: Okay, I am not satisfied. From the base line, may be one or two students may be created aspects. Most of the students are not.

R: What problems of English Language do you think your students have while doing activities in their field of studies?

Inst 2: okay, ... the problem ... eee...when I assigned students an assignments, the problem of the students are they cannot write the given assignments by themselves. They copy pest from internet. That is why it is the problem. They do not write by their own they copy paste from internet.

R: Is this problem is language gap or fields for study knowledge gaps.

Inst 2: I don't think it might be technology gaps. That means eee... thy did not write by their own. They search and they coy pest. So, you cannot evaluate them whether they have problem on writing pr the context

R2: Didn't they paraphrase when they copy paste?

Inst 2: Most of them did not paraphrase. Most of them did not.

R: Didn't you deduct their mark when they copy paste? Didn't you consider as plagiarism?

Inst 2: Yes, of course, already I check the references and the based on the reference, I enter google, and then if it is already direct copy paste, give them zero.

R: From your experiences of teaching major subject area courses, what do your students do with English?

Inst 2: Okay, the overall benefit of English for health science students is one it helps them to understand easily what I'm saying. The other as I have said earlier, most of those who have good English understanding may already do some assignment, while the other copy and paste from internet. they search and Paraphrase , so those who have good understanding, they know how to participate, they know how to search the assignments, and they know how to search books. So English is good input for health science students.

R: Are you happy if English language for health science students are given at first, second, third or fourth year as a major courses?

Inst 2: eeee... I don't think so. Eeee ...it is better at first year and second year, but after that they have broad professional courses. Thus, it minimizes their time, so from my propection already it is good for them to learn at first or second year.

R: Would you like to comment or add anything?

Inst 2: Okay, one comment I have is so it is better to focus specially students who are in the first year eee... I think if it focus on writing and reading skills, so it should be focused deeply not highlighted and able to speak English fluently. Most of the students do not have more

understanding of English language, so when they join University May be they should have deep understanding.

R: Thank you very much.

Inst 2: take it easy.

Interview 12: Midwifery Department Instructors' Interview

Date: 27/04/2022

Time: 02:09: 06pm

Place: In Samara University midwifery department office

Method of interview: face to face

Participant/Key informant's code: Inst 3

Transcription of interview with inst 3

Researcher introduced himself as usual

Interviewee also introduced himself. He was midwifery instructor at Samara University.

R: Do you think that English is important to your students in their academic studies and professional careers?

Inst 3: Yes, of course, it is very crucial for our student for most of the courses are just provided by English, and all the courses are provided, and all the references we have also all ...eee... the text they read, all the papers they read and all the books which are available in the library are in English and English is must and crucial for our student. In other saying because the courses are delivered by English , and all the references are in English, and students need to understand each and every thing in English of course it doesn't mean that the other language not necessary in Afar context , but they need to know about the local language context, but all the references, all the books are in English and they need to understand and they need to know as well as they need to have reading, writing and understanding skill of English language.

R: Okay, thank you. My next question is What English language (general English/medical English) do you perceive your students need to pursue their academic study and professional careers?

Inst 3: yeah I... am eee...m not be the right person to answer you or to just comment on which specific language or which specific type of English is needed because I am not from that profession, but the medical students should just eeee.... Know about or to get information on

understanding of different eee.... English language books may be or understanding English in which they can easily understanding professional ...eee... books as well as professional courses, but if possible, it would be good if you could incorporate the medical language in your just English courses because ...eee... we do have our own terminologies, and like the vocabulary you have in English, we also have our own terminologies in medical as well as the other courses, so they need to just get these are the vision of medical English. As there is medical English, but before that they need to understand how to write, how to just speak, how to read these terms.

R: Okay, thank you. How satisfied are you with the English language proficiency level of your students?

Inst 3: ...ooo....um is not as much, even, we as a lecturers or as instructors are not as much level rather than just blaming our students. We as a lecturers, we do not have the skills which is just expected from us at any university lecturer level, so the level is you know even they do not understand what just you are teaching in the class. They even may not understand what you ask in a question. When just you give them an essay question, even, a few of the students may just respond. May write on the essay question (case).

R: Why do you think they are not responding to the essay question (case)?

Inst 3: Eeee..... as to me, my judgment I mean my perception, there English level is eee...basic or below the expected

R: why do you think they are below the expected level? You also said, you as an instructor are below the expected. Why?

Inst 3: eee...the problem is from very beginning, from the scratch, because they need to just learn English at the primary school level, at high school level, so their backgrounds affect them to be like this ee...mee at university level. If I think most of the English language is not from early ee...m given at primary school and other areas. Always given as one single course, and students may not understand, even the instructors who are assigned to teach English at primary and other high school level, not as such efficient or as such eee....m professionals. So. In Just, at primary level, just before they enter into the university, the concerned body should just give focus for the students to learn English just from primary to high school to University. So, these are the way they can improve their English language.

R: eee....m thank you. You remind me one thing eee...m one question. I have observed some instructors in health major subject area classroom while they are teaching. Most of the time they

use Amharic. As I have observed, there is no instance in which the use English sentence. When they use medical words, they tell medical words in English, then explain in Amharic. Even, they use Amharic conjunction to connect word for ward. Eee....e WHY? For example, there are students whose mother tongue is not Amharic they may not understand. May be eee... those whose mother tongue is Amharic may be benefitted. So, why they do this? Have you observed such case?

Inst 3: I...aaa.... I... eee....em I'm the one. I am the one who are just using Amharic language when teaching my students. You know because eee...we as instructors are not at that level. I mean we ourselves did not understand English very well, and we do not speak English very well. It is not only the problem of student, it is also the the problem of the lecturers. We as a lecturer did not know English language. Do you know the language that we know is from the background often as the baselines at primary level or at high school level? Now a days, in just universities English language is just started I think we are improving, but instructors by himself doesn't know about English or doesn't know how to speak with his students. Of course, it may just offended the other students because eeee.... Amharic language may not be mother language of the students because all of the students are coming from different nation of Ethiopia or deferent region of Ethiopia. It may not be just the language of that person, but we are using language as we just consider as Amharic language is the national language and just we take it as everybody knows it, but it should not be the case or our issue is not in that way. We should just teach them in English because we are just saying that our most or our goal is or vision is producing competent graduate. If you are saying producing competent graduate we need to just teach them based on the curriculum because of the curriculum courses are in English and we need to fit with the international community or the other students which are just eee...similar to the level. But we are not doing that because what are not just competent with this is that the teachers should just get eee..... Supports of English language course may be like HDP or teacher should be just supported to know English very well. To teach my students in English, I must know English before that. I have to understand English. If I don't know English, I may not just teach them in English, so it is good to work on teachers to understand English very well to teach their students.

R: Okay, thank you. What problems of English Language do you think your students have while doing activities in their field of studies?

Inst 3: Most of the time just writing skill they do not have writing skill whenever just you give them an essay or a case, uu...m even if they are thirty only three to five students may respond you correctly because of the language problem eee...m they do have writing problem oo...m writing skill problem I mean also speaking problem. Some of them also have eee...m just may not understand what you say, so to say that speaking is the problem, eee...m writing is the problem and the other thing is that they may not understand also what you have been saying eee... yeah these are the major problems we are facing in the classroom

What kind of language problems do they have?

R: From your experiences of teaching major subject area courses, what are the overall benefit of English language for health science students?

Inst 3: No doubt. There is no doubt. There is no just opposition in regarding the importance of English language as it is international language or as I said from the very beginning all the books are just written English. It is also an international language it is not only for the course that they took. For example, if you want to just compete, and if you want to just be hire in one organization, English is one of the criteria to be hired and to be competent and to understand to just run to step up all the activities which are within that organization, so English language is very crucial for our students as well as for everybody. Not only for students by the way, for everybody. It is just basic. Everybody should know. I mean, I am not just saying that they shouldn't not know Amharic or the other Afan Oromo or the other Language or Afaraf or Compta or that other language, but as they are scholars they need to understand English because most of the scholar books, most of the published articles are in English. If one person doesn't understand English language very well, just read that one he cannot captured and he can't be competent in that regards, so basically, every teacher should teach their students in English language based on the criteria, particularly, for the health science students ee...these...these things I mean just like understanding, reading as well as writing skills should be just provided for students. Not only writing skill, but also speaking skills whenever eee...m just we teach them to the hospital, they need to eee...m have bedside presentation or seminar presentations. all the cases are in English, so they will eee... they need to read or they read all the book, the medical books in English and they need to understand English language that is why I recognizing for our teachers or our students.

R: What do you feel if English courses are given at third years, or fourth years?

Inst 3: Uuu...m yeahuu...m just to say, do you mean as a supportive courses or just like a major or a compulsory courses like the courses we take in medical school courses?

R: yes, Just it is language, but if it is given just like their major medical courses?

Inst 3: It would be helpful.... It would be helpful ...yeah it would be helpful for our students because in just our working industry, English language is a must you know... as we ... know in globalization there is competition. Just to compete with different people you need to be eee...just very you need to have good skill in English language, so it would be helpful for our students. Particularly, for health science student, we would have license exams. We also have coc exams and the others all these are in English and it would just help for our students. So, just it would be good if you could include it as a major courses?

R: Thank you very much! Would you like to comment or add anything?

Inst3: Thank you very much for... eee...m you ask me about English language. English language course should be just provided for both students and lecturers or the instructors because universityin university When just someone is in university people just understand that that person is scholar and he does research, and he knows everything than the other ordinary people. This is the people's perception, not my perception, by the way if we want become a researcher you need to understand English very well while you are just publishing or just sending research papers for journals, they are saying that would you please just contact with the native speaker, or would you please contact with English language professionals it says, so for as a lecturers English is mandatory and very crucial and very basic and all instructors need to get adequate information as well as knowledge and all the basic things which are just expected from the lecturers who is teaching in English in university. So all these things should be provided for teachers. Regarding students, it should start from the primary school. Student just should have minimum skill of English language reading, speaking, writing and these basic skills...eee... the four basic skills. It should be one of the competence criteria for our student to just promote or just to join the next chapter, or for the next grade. So, I would final say that English language is very crucial and particularly important for a lecturer in universities. If for example, I want to get scholarship, all the things are in English, IELTS is one of the criteria in which eee... scholarships is given, so it should be a major thing and teachers should be supported and just gutting English language as mandatory courses also for the teacher .

R: Okay, thank you very much indeed!

Inst 3: Don't mention it!

Interview 13: Midwifery Department Instructors' Interview

Date: 27/04/2022

Time: 03:20: 08pm

Place: In Samara University midwifery department office

Method of interview: face to face

Participant/Key informant's code: Inst 4

Transcription of interview with Inst 4

Researcher introduced himself.

The Interviewee instructor also introduced herself

R: Do you think that English is important to your students in their academic studies and professional careers? Why?

Inst 4: okay, thank you. UU...m I think English is important since most of the eee... material .. the teaching material and learning materials are prepared in English plus the science came from foreigner or western,so it is very important I think. Actually, we can adapt the life that the teaching learning process or the language to our eee... local language , but knowing or teaching and learning in English language that is very vital for the students. Eee... further English in eee.... our college since it is the health science college , most of the terms or medical terms are in English and like most of the terms do not have eee... like a direct meaning in Amharic or in other language, so teaching learning eee... is in English and so it is vey important.

R: What English language (general English/medical English) do you perceive your students need to pursue their academic study and professional careers?

Inst 4: Eee.....m may be both, but most of the time, they use medical English and sometimes general English. We can explain the medical English terms using the language, most of the students do not have similar back background, and their level of proficiency may be deferent, so using a general English along with the medical English might not be suitable or comfortable for them, so when we need to explain the medical terms, we use the English terms, but to explain them, we may use Amharic language or other local language. So, we use both them.

R: Okay, you remind me something though it is not a part of my research question. Most of the instructors use Amharic language than English in the classroom. The use only medical English in English, but they use all in all or almost all Amharic language. I haven't seen instructor constructing a single sentence in English.

Inst 4: eee....m...

R: I realized students came from deferent regions and have deferent mother tongue. Those whose mother tongue not Amharic may be harmed. Any way that is not my business, but why do you think they use More of Amharic? Could you tell me just its influence or may be on non-Amharic speaker students?

Inst 4: Okay, actually it is depends on language proficiency of the instructors eee....m since our mother tongue is not English and we are native speakers, some times may be using Amharic or other language may be visible for us and like to explain easily in order to make the lesson clear for the students like we may prefer the local language especially Amharic may be that is why actually these depend on the English language skills' ability of the instructor, but sometimes the students may also prefer the local language. When we try to teach them using only English language they say, "Please can you explain it in local language or Amharic?" the students also prefer that eeee...local language specifically Amharic. Eee...m sometimes some students some teachers may also use Afaraf because there are students from Afar region they know neither Amharic nor English. So, the teacher may obliged to use Afaraf in addition to Amharic.

R: What about non- Afar instructors

Inst 4: Non- Afar teachers? Yaw, we use Amharic. Sometimes the students prefer like being used by Amharic language they ask us to explain in Amharic again so that is why we use Amharic.

R: Didn't they understand the English version?

Inst 4: yeah

R: From our conversation I can understand that you have no problem of speaking English, but you why do you often use Amharic in the classroom while delivering the courses?

Inst 4: I try Eh...h... I use both actual ... students prefer Amharic

R: How satisfied are you with the English language proficiency level of your students?

Inst 4: uuu...m I am not much satisfied.

R: What problems of English Language do you think your students have while doing activities in their field of studies?

Inst 4: Actually this is depends on their background. Since we do not teach them in English here eee...m language here, most of the students did not have good English background that is why they do not hear and speak English. Not only hearing and speaking, they also have writing problems. Their writing skills in English is not so much satisfied.

What kind of language problems do they have?

R: From your experiences of teaching major subject area courses, what are the overall benefit of English language for health science students?

Inst 4: I don't think like there is much advantage like using English in our college likeeee... m actually it is good since health science is an international profession, so knowing eee....ee...m science and skills like in English is good like it is not a bad thing knowing the language eee... for being used by the foreign language, but eeee....ee.. it is crucial in all aspects. Since the science came eee... previously eee.... the science came from a western, eee... and it is not by our language. The curriculum is also not by our mother tongue, but in English. All things are available not with our mother tongue, but in English being learned it is a good thing I think.

R: Okay, thank you, I have finished my question. Would you like to comment or add anything?

Inst 4: Aaa.....m eee..... If something is designed to increase their English proficiency, for example, if something is designed, eee.... for example, they have six months before choosing this field. They took common courses, so I think it is better to invest on their writing skill and speaking skill, so they may not find difficulty in using English language, so I think we need to intervene. Incorporating English language course at any year of study is good, but like I prefer if we give them at the beginning.

R: Thank you very much.

Inst 4: Ok

Interview 14: Nursing Department Instructors' Interview

Date: 28/04/2022

Time: 10:10: 19AM

Place: In Samara University nursing department office

Method of interview: face to face

Participant/Key informant's code: Inst 5

Transcription of interview with Inst 5

The researcher introduced himself

The interviewee also introduced her self

R: Do you think that English is important to your students in their academic studies and professional careers?

Inst 5: Of course, I believe that is important since our curriculum every course has been delivered by using this language. In order to get the concepts of each courses, English is functions to understand, so they are expected to use perfectly.

R: What English language (general English/medical English) do you perceive your students need to pursue their academic study and professional careers?

Inst 5: I think both are important, but first they are expected to know general English language and then they may use some specific words in medical English, so both of them are important.

R: Thank you. How satisfied are you with the English language proficiency level of your students?

Inst 5: eee....m I have been giving assignments and there would be class discussions, so I have seen that they have been using the local language, and I see there is a problem, or there is a gap in using English language, so there is a gap I think in order to communicate perfectly with English language.

R: I have observed some major subject area of health science classroom lesson, but I haven't observed instructor even using or speaking a sentence in English language rather than code mixing. The speak only medical terms in English, but the other even connection, conjunction and everything is in Amharic

Inst 5: Sometimes the students forced us to use Amharic language because sometimes even complain that they even ask us to use Amharic language so that they can understand the concept even they consider as drawback of us using English language, so w can sometimes use Amharic language.

R: always or sometimes?

Inst 5: No, personally, I use English language and they even complain that I usually use English language so that we cannot clearly understand, but I prefer using English, and I also suggest that using English language can also strengthen their skills.

R: Doesn't it influence non- Amharic speakers?

Inst 5: It is the limitation of some instructors because I totally forbids such things personally.

R: Okay, thank you. What problems of English Language do you think your students have while doing activities in their field of studies?

Inst 5: eee....m for example, in the final exam, .students most of the question part is Essay questions so that they can explain. They are expected to explain a lot of things ..., but it is a challenging to assess. I belief that they want to say something. They may have the concepts, but due to the grammar errors, I don't understand what they want to say so that I am going to understand the m wrongly and sometimes I wish if I asked them what they want to say. Due to the grammar error problem, I don't even understand what they want to say. Hence, there is a problem in such things, and challenging for us to evaluate.

R: From your experiences of teaching major subject area courses, what are the overall benefit of English language for health science students?

Inst 5: eee....m I think not only for health science students, eee... as a general course taking an English language skills can be very crucial in every aspects because it is international language. They do have an opportunity to attach so that they need to communicate with every aspects of their world, so it is Important. Specifically, for health science students, eee... I just believe that every students need to have a basic language skills in order to communicate as much as possible.

R: Would you like to comment or add anything?

Inst 5: eee...mmm.... Okay,...it is ... it is good to provide language skills as a subject in health science class because they are learning here and even it is better if the training is given to the department staff...eee..I mean to us because English is the basic for us. Even the language teachers may use Amharic in the classroom eee..., so I recommend the department to provide us skilled instructors so that they can train as the Basic English. These are what I want to say.

Thank you

R: Thank you too

Inst 5: Okay.

Interview 15: Nursing Department Instructors' Interview

Date: 28/04/2022

Time: 03:09: 06pm

Place: In Samara University nursing department office

Method of interview: face to face

Participant/Key informant's code: Inst 6

Transcription of interview with inst 6

The researcher Introduced himself

The instructor Introduced himself

R: Do you think that English is important to your students in their academic studies and professional careers?

Inst6: Yes, indeed. That is why students eee... campus students are specially learning all courses or all subjects in English. They do literatures eee.... Students' research project in English. Especially, in our settings, in clinical hospitals, we assess all things in English, so without knowing English, even, eee... to attend their degrees even... their subjects all difficult, So English language is mandatory.

R: Okay, what English language (general English/medical English) do you perceive your students need to pursue their academic study and professional careers?

Inst 6: Eee... especially, for health science student eee... medical English is very important. You know, we teach medial science most of the times are relatives, so medical terms are different from normal English terms. For example, we can say that respiratory disease. This respiratory disease might not be normal English language for communication. It is medical English. This medical English is very important because eee... this language is eee... help for their future career.

R: Okay, thank you. How satisfied are you with the English language proficiency level of your students?

Inst 6: Ofcourse, eee ... students have different background. Some students who come from eee... city like Addis Ababa, Bahirdar and some areas of eee... twon have good English speaking habits ee....m even good communication ability, but there are some students who come from countryside. These students are even difficult to communicate within normal English let

alone medical English, So these students eee... a good..eee with communicative English as normal part of the curriculum eee... they took softer, so eee... this help the student even they practice within a term while learn these classes as the same time as possible terms, if medical terms is added to the study, they can develop their communication and they are good , especially. Eee... at the graduation level they can improve their communications.

R: What problems of English Language do you think your students have while doing activities in their field of studies?

Inst6: Eeee.....m the problem that face the students because of poor English skills eee.... even they afraid even to speak English. Even if they not some students afraid and even they determine themselves as they didn't speak such type of Latin and medical words. So, being ashamed, afraid and eee... restricting themselves in participating such problems that we face as a teacher.

R: Do you think that inability of expressing some medical terms is because of English language lacks or problems?

Inst 6: Some students, yes.

R: What about in terms of writing and grammar?

Inst 6: Even, most of the student didn't write a paragraph because as you know paragraph is such difficult English language rather than communication, so writing skills I think some students have big problems.

R: From your experiences of teaching major subject area courses, what are the overall benefit of English language for health science students?

Inst 6: yes, Specially, I teach some Courses eee..... so when thought the students this part, for example we give eee...m essay some clinical aspects of the clients we provide and then they have to write from the initial assessment up to the final management by themselves. So, as this time, the students have such problem of performing even if they know what should be done and what would be happen, they have some limitation to express in English eee....m, so they have such problem.

R: Okay, thank you. Eee....which skills (listening, speaking reading and writing) do you think most important for health science students?

Inst 6: Especially for me eee... m writing and speaking are equally important because if one student has problem with writing, even they may write miss spelling when he prescribe medications that is a critical because it dangerous for other life. For example, when one student

write eee... m ciprofloxacin if he writes other spelling, the pharmacist may give deferent medication, so in this condition, the client may face danger, so speaking and writing are such mandatory.

R: okay, thank you. Would you like to comment or add anything?

Inst 6: Yes, my comment is that especially for health science students speaking and writing skills are such mandatory, so in order to capacitate such students with this skills it should be done beginning from the lower level. At university level, they have different burden, they have no time to learn English. They take English as one subject in the first year, but for four and above years they take their major subject area course, so by taking English course for three or four months in the first yea, they may not be effective at English. Hence it should be done at... this level. I recommend to take writing skills.....

R: Thank you very much

Appendx-S: Evaluation criteria for Test of written English (TWE)

The researcher used Rogers (2011, p.388) chart to mark the TWE score as follows:

SCORE	Explanation of Score
6	Scoring indicates the ability to write a well-organized, well-developed, and logical essay. Specific examples and details support the main ideas. All the elements of the essay are unified and cohesive. A variety of sentence structures are used successfully, and sophisticated vocabulary is employed. Grammatical errors are infrequent, but a few minor mistakes may occur.
5	Indicates that the ability to write an organized, developed, and logical essay. The main ideas are adequately supported by examples and details. Sentence structure may be less varied than that of a level 6 essay, and vocabulary less sophisticated. Some grammatical errors will appear.
4	Indicates a moderate ability to write an acceptable essay. Though main ideas may be adequately supported, weakness in organization and development will be apparent. Sentence structure and vocabulary may lack sophistication or be used inappropriately. Grammatical errors may be frequent.
3	Indicates some minimal ability in writing an acceptable essay, but involves serious weaknesses in organization and development. Significant sentence structure and vocabulary problems occur, and there are frequent grammatical errors that sometimes make the writer's ideas difficult to comprehend.
2	Indicates the inability to write an acceptable essay. Organization and development are very weak and or nonexistent, lack unity and cohesion. Few if any specific details may be given in support of the writer's ideas. If

details are given, they may seem inappropriate. Significant and frequent errors in grammar occur throughout the essay. Writer may not have fully understood the essay topic.

1 Strongly indicates the inability to write an acceptable essay. No apparent development or organization. Sentences may be brief and fragmentary and unrelated to one another. Significant grammatical errors occur throughout the essay and make it difficult to understand any of the writer's idea. Writer may have completely misunderstood the essay topic.

Off Did not write on the topic assigned

INR Did not write the essay

(Rogers, 2011, P.388)

