

## Assessing health science students' English language lacks: learners' needs analysis

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### Abstract

English language courses are provided in universities throughout the majority of the world where English is used as a second or first language to address students' English language needs in the target-situation use. However, at all Ethiopian Universities where English is taught as a foreign language, two English language skills courses, dubbed "communicative English language skills I" and "communicative English language skills II," are offered as standard courses in the first year. Large language gaps have been noted, particularly in health science academic and professional settings where English is largely expected. Hence, this study aimed to identify Health Science students' English language gaps so that English language courses are designed accordingly. This study employed a mixed-methods research design. It was conducted via tests, observations, and interviews. The findings revealed that participant students had good proficiency in grammar and usage as well as reading skills. However, they had poor proficiency in listening skills, which in turn indicated that the students had difficulty understanding spoken English. The findings also indicated that these students demonstrated an inability to write an acceptable essay. The study further revealed that students' failure to describe a patient, the case, the complaints, and the drugs in medical terminology was partially due to a lack of English language skills. As a result, while developing English language course materials for health science students, course designers and practitioners should address these English language gaps existing in students' academic studies and future professions.

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## INTRODUCTION

The growing need for detailed analyses of learner needs as a precursor to good course design is one of the numerous prerequisites for efficient course design in foreign and second language education (Long, 2005). (Hyland, 2006) defines need analysis as the procedures for acquiring and evaluating information relevant to course design, and it is the method for determining the how and what of the course. To compete at the international level, students must have at least three language skills: Basic English, work-related language skills, and academic-related language abilities (Yansyah et al., 2019).

According to Nation and Macalister (2010), numerous elements should be addressed while building a course. These are learners' current knowledge and gaps, accessible resources such as time and teachers' expertise, the curriculum designer's strengths and limits, and teaching and learning principles. According to Basturkmen (2010), language is learned not for its own sake or to obtain a broad education, but to smooth the way for admission or to improve linguistic efficiency in specific situations. It is not required to teach a linguistic object just because it exists in the language (Nunan, 2004). Acceptable language course material and possible advantages may be discovered if students, sponsors, and teachers understand why students need English (Hutchinson & Waters, 1987). In conclusion, (Basturkmen, 2010; Hutchinson & Waters, 1987; Long, 2005; Nation & Macalister, 2010; Nunan, 2004) all argue that English language course material should be designed to fit students' academic and professional needs.

Teachers must always do needs analyses, such as determining if the subject is too difficult for their students, whether there is anything new for them to learn in this activity, and whether everyone in the class understands it (Nation & Macalister, 2010). They emphasized that completing a need analysis is analogous to conducting research or assessment since a good need analysis is credible, valid, and practical. Designing skill-based resources will aid students in developing skills that they will need for future work or education (Yansyah et al., 2019).

ESP is a movement that addresses the language needs of learners who require English to perform specific roles (e.g., students, engineers, nurses) and who need to acquire content and real-world skills through the medium of English rather than mastering the language for its own sake (Richards & Rodgers, 2010). Richards (2001) states needs in terms of a linguistic deficiency as the difference between what a learner can currently do in a language and what he or she should be able to do. According to McCorry & Mason (2011), a healthcare worker with excellent communication skills will always be more effective in treating patients. We believe that Medical English should be taught at increasingly difficult levels over the course of a five-year undergraduate degree (Li, 2015).

Language tests are instructional tools used during the second step of corporate language audits (Long, 2005). He lists four stages of an audit: identification of the foreign language skills that employees need to complete their communications tasks; determination of the employees' foreign language proficiency; association of the existing level of command with the required level; and an indicator of educational language policies that the company can implement to improve their employees' foreign language proficiency. Determining where the learners are presently (lacks) is an important component of needs analysis (Nation & Macalister, 2010). As a result, English language proficiency tests were administered to students in order to determine their present level of English language ability.

The researcher believes that English language gaps exist in the classroom and in the health professions. Harmer (2001) states that communication can suffer if grammatical rules are carelessly violated. In Ethiopia, all health science or medical students study all courses in English. Hence, in Ethiopia, the English language plays a more significant role in the health professions than in any other field. Paltridge & Starfield (2013) argue that it is definitely possible to build an EMP course around a sequence of relevant language items learning materials based on semantic feature analysis (SFA) significantly develop the acquisition of English medical terminology among nursing students (Putri et al., 2023).

Karimnia & Khodashenas (2018) found that the English language abilities provided in the current ESP book for medical students, as well as the time allocated for this course, are incompatible with the students' English language learning wants and wishes at Islamic Azad University in Iran. This might suggest that the majority of countries have already implemented ESP courses for medical students and are studying their efficiency in meeting students' English language demands.

However, communicative English language skills are given as common courses for all first-year university students in Ethiopia. Even the activities in the modules do not address the English language needs of health science students in particular or natural science in general. The objectives

of the module themselves indicate big gaps to address in terms of academic or professional needs. The researcher attempted to locate international and local studies on the subject. Some Ph.D. studies were undertaken overseas, whereas just a few MA programs were conducted locally.

Some instances of Ph.D. research done overseas include Abdullah's (2005) work, which focuses on sociolinguistic needs rather than target needs. Alfehaid (2011) studied the importance of skills rather than learners' English language needs. Farhat (2012) explored the function of English as a foreign language in doctor identity construction and the process of becoming a doctor. According to Abuklaish (2014), English is generally required in a scientific setting. Chatsungnoen (2015) investigated the English language needs of students and related stakeholders for an English for Specific Purposes (ESP) program for students studying food science and technology at Thailand's Agriculture University. However, with the exception of a few MA theses, the researcher has not come across any local studies undertaken in an Ethiopian setting at the PhD level. For example, Abiy (1990) did research to determine the communication demands of high schools, and he proposed that his study be only a partial job to build a course. Belachew (2008) also attempted to investigate the English language needs of construction TVET trainees, with a focus on Entoto TVET College. Tufaro (2008) conducted research to assess the English language needs of third-year students at Shashamane Health Science College. His major goal was to find more vital language skills for third-year students to be successful in their academic context, future jobs, and private and social lives.

Thus, none of these studies has captured the essence of the current study. The current study, on the other hand, investigates health science students' English language gaps in academic and future professional activities in order to design appropriate course material. As a result, this study aimed to address three fundamental questions: What are health science students' current English language abilities and language use?; what are the English language gaps that existed in health science students' writing?; and what professional communication gaps are there in the target situation?

## **METHODS**

This study used a sequential explanatory mixed-methods design. Plano Clark & Creswell (2015) suggest that the best mixed method design is a sequential explanatory design in which quantitative results are obtained in the first phase to provide a general picture of the research problem, and then these findings are refined or elaborated through an in-depth qualitative exploration in the second phase.

Researchers can adopt a pragmatic approach if they want to choose the research method they think is best for their study (Dornyei, 2007). Creswell (2014) also reveals that the pragmatic paradigm allows researchers to feel free to select procedures or methods that can meet their needs in collecting various types of data to answer their research questions. According to pragmatism, new paradigms generate new sets of beliefs that lead to new types of behaviors (Morgan, 2014).

The conceptual framework of this study depends on the rationale of language descriptions and theories of learning. A basic framework for the present study is outlined mainly depending on Hutchinson & Waters (1987) needs analysis framework.

In general, the context of examining students' English language lacks in light of course design is described in Figure 1.

In the figure, the framework shows 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 lack to function in their academic and future professions) are identified. These identifications of the target needs are done through identifying lacks (students' language difficulties). Analyzing the language in target situations helps identify the language skills and knowledge needed in the target situation. 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 by learning situation analysis. Then, the 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 relevant to students' academic fields of study and future professions will be designed.

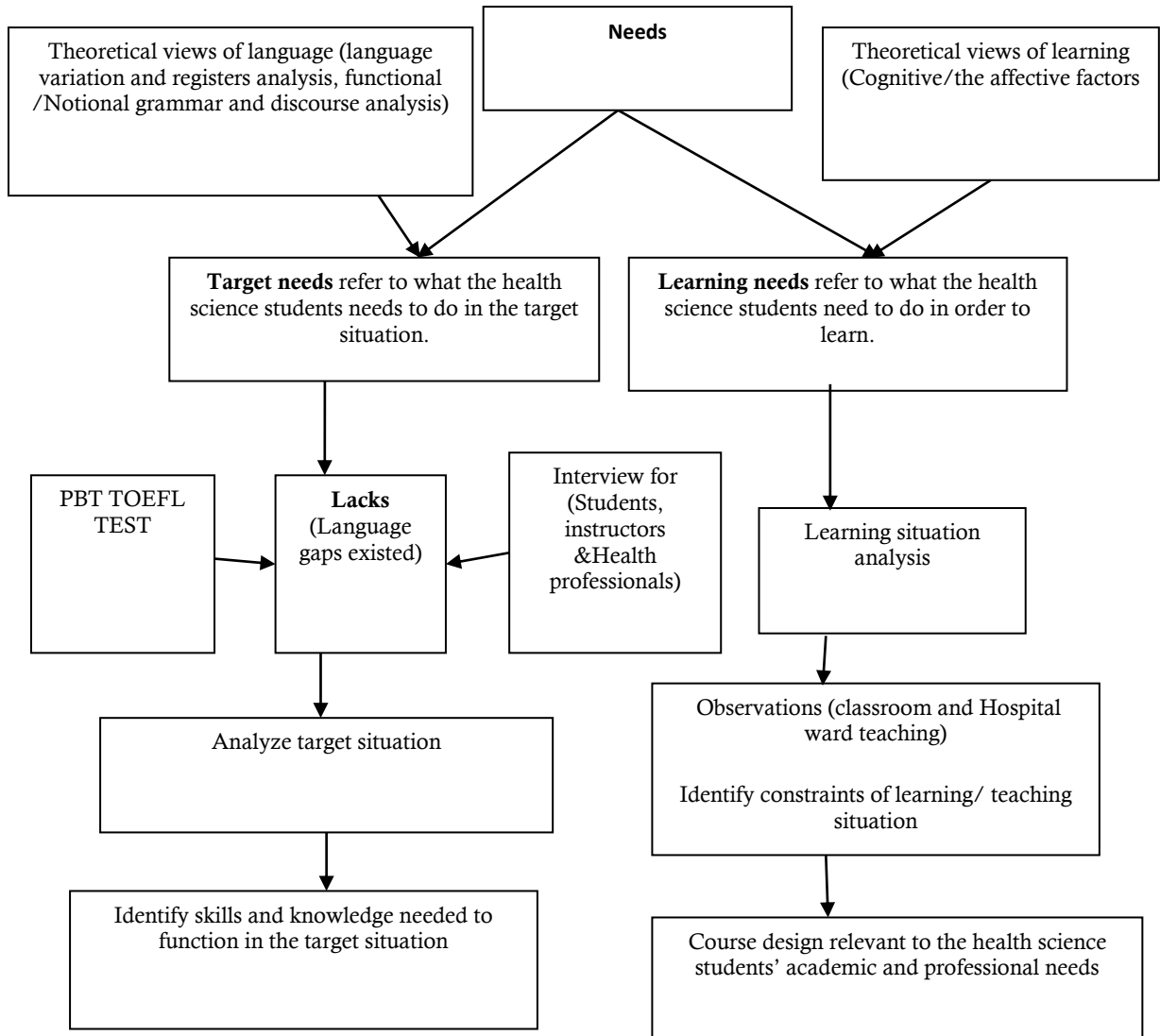


Figure 1. Conceptual framework of the study (adapted from Hutchinson and Waters, 1987)

**Respondents**

A total of 131 second and fourth-year students in the college of Health Sciences at Samara University were selected from a target population of 199. 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. The students' samples were chosen based on a stratified sampling technique. Kothari (2004) states that stratified sampling techniques are generally applied in order to obtain a representative sample of the population from which a sample to be drawn does not constitute a homogenous group. Thus, to obtain sample students from each department, stratified sampling was used. 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 in to 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 was 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 public 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 1. Student participants for the quantitative data**

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

Six students who can give ample information were chosen purposefully for the interview based on their instructors' recommendations. The researcher was aimed to interview 12 students, but stopped on six because he got the information obtained redundant. Plano Clark & Creswell (2015) state 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.

Five subject area instructors from the college and six health professionals from Dubt Hospital were selected for the interview by available sampling techniques. There were five major subject area instructors and six health professional who directly concern this study. Hence, all of the major subject area courses' instructors who were delivering the courses under the study and health professionals were selected for the interview. Three subjects, who are course instructors, and three health professionals were also observed. These instructors and professional were selected based on their work experience and their availability during the moment of data collection for the observation.

### **Instruments**

Data were collected through quantitative instruments (tests) and qualitative instruments (observation and interview).

According to Nation and Macalister (2010), students' scores on standardized proficiency tests like the TOEFL exam or the IELTS test can be a helpful source of information, especially when they contain information on several components of language ability like writing or speaking.

Observation was the first qualitative data collection instrument used in this study. It was utilized to directly observe the English language target-situation use. When case study researchers study bounded systems like classrooms, clinics, or programs, observations are a common type of data (Plano Clark & Creswell, 2015). In this study, the interview was also another qualitative data gathering instrument used for elaborating or extending the data and results obtained by the PBT TOEFL test. Besides, it was also used to confirm the data collected by observation. The interview questions were adapted from questions of need analysis found in Richards (2001). Each item was then adapted in a health science context based on need analysis questions found in Basturkmen (2010) and Paltridge & Starfield (2013) because the researcher thought they matched his research objectives. The type of interview used was a semi-structured interview.

### **Data collection procedures**

The data for this study was gathered using quantitative instruments and qualitative instruments in accordance with the techniques outlined below. First, the researcher spoke with concerned university executives and university workers to gauge their interest. Accordingly, the academic president of the institution stated his willingness.

Then, he sent the researcher letters of support to the appropriate bodies in order to aid the researcher with data collection from their college. The researcher then discussed the issue with the concerned faculty and vowed to protect their privacy. The participants then provided the researcher with complete assistance throughout the course of the study.

First, the PBT TOEFL test was administered to the student participants. Test was delivered to 131 selected students in Samara University's hall by the researcher and by the assistance of two major subject area instructors. Before administering the test, the researcher gave the students some

instruction and alertness regarding time. Then, the test was administered just according to the procedure and time of the ETS in PBT TOEFL test. All students had done and gave the paper except one who was sick and did not complete all the questions. As a result, it was rejected and the results of 130 students were used for this study. Having analyzed the quantitative data, then the qualitative data were shaped based on the results.

From the qualitative data, observations were conducted first. The observations preceded the interview intentionally for the fear that the teachers may adjust themselves based on the information gleaned from the interviews. Generally, twelve classroom observations were conducted in three departments to obtain students' English language gaps in their academic field of study. Each class was audio-recorded from the beginning to the end of the observed lesson. Then, it was transformed into textual data through transcription. Field notes were also used for unrecorded behaviors.

The researcher also observed 12 session of internship students in hospital wards to investigate the English language that health science students lack and expected to know in their future professional careers. Here, the researcher observed internship students learning at hospital wards. The researcher observed all activities happened because the nature of the observation was shadowing. He was following all the activities of the participants for a certain time based on their convenience on duty. (Dudley-Evan & St. John, 1998, p. 135) state that "to shadow" someone is to follow everything that they do for a block of time, such as a day, several consecutive days, or one day a month." Hence, observation began on December 14, 2021, and end on February 2, 2022. The students first clerked for the patient. Clerking entails taking a case history, performing a physical examination, and speculating on possible differential diagnoses and treatments. It was observed that the internship students were expected to do three things, mainly after clerking the patient. They were giving presentations at the bedside, in rounds, and seminar. Thus, the researcher observed, recorded and transcribed to textual data.

### **Data analysis**

As mentioned earlier, the test was administered to collect data in order to identify students' present knowledge at that time. Then, the test was corrected, and the results were changed into scale scores used by ETS in determining a student's PBT TOEFL test result. For the alternative items, the researcher corrected using the answer key given by Rogers (2011). The raw test results (listening comprehension, structure and writing expression, and reading comprehension) were then scaled. Each of these sections' total number of correct answers was converted into a scaled score. Scaled scores for listening comprehension, structure, and written expression range from 31 to 68, while scaled scores for reading comprehension range from 31 to 67.

The PBT total score, according to ETS, is the sum of these three sectional scores multiplied by ten and divided by three, in the range of 310 to 677. The Test of Written English (TWE) score, on the other hand, is shown separately from the overall result. They are scaled from 1-6 in half-point increments: off if they did not compose the subject and INR if they did not write the essay; the projected average TWE score is between 3.5 and 4.0. (Rogers, 2011).

ETS has supplied the mean scores of all students who take the TOEFL PBT for each section. They are 53.1 for listening comprehension, 52.1 for structure and written expression, 51.9 for reading comprehension, and 524 for the overall score, with TWE ranging from 3.5 to 4.00. According to Rogers (2011), most undergraduate programs demand scores between 500 and 550, while each university has its own admissions norms.

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 the standardized TOEFL test score scale. Besides, the test questions for which the majority of students fail to get the correct answer indicate a lack, whereas those for which they get it right indicate their present knowledge.

The qualitative data was analyzed as the recorded interviews and observations were transcribed. First, the transcripts were coded and grouped thematically. Then, the analyses were made based on the thematic category. The sample quotes were also selected and presented in the results and discussion sections.

## FINDINGS AND DISCUSSION

This section presents the results and provides brief discussions to find the English language gaps that exist in health science students' target situations.

### Health science students' current English language abilities and language use

As stated in the methodology section of this study, looking at where the learners are at present, which helps to identify their deficiencies, is an important aspect of need analysis (Nation & Macalister, 2010). They claim that students' scores on standardized proficiency tests such as the TOEFL or IELTS can be a valuable source of information. Therefore, the TOEFL test was given to identify the students' present English language proficiency level. Then, it was corrected and analyzed as follows:

Table 2. The mean score of students' listening, structure and written expression and reading skills

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

According to table 2, the average listening skills score was 42.51, which is less than the standard ETS score of 53.1, while 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. As a result of these findings, it is possible to conclude 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), these students were unable to write an acceptable essay, had weak organization and progress, and lacked consistency and cohesion.

Good proficiency in structure and written expression, on the other hand, may indicate that students were competent in grammatical structure, Reading score, on the other hand, may show students' reading ability is good. This seems similar to the findings of Ibrahim (2020), who revealed that medical students at the faculty experienced issues such as a lack of basic abilities, including 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. As shown in Table 1, however, learners in the current study showed no challenges with grammatical structure, although they did have difficulties understanding spoken English. The results of the classroom observations also reveals 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 which is the national language of Ethiopia as indicated in the following observation results.

Extract 3: A sample of classroom observation  
The Daily Lesson was Acute Sinusitis

Inst 2: okay, we will see a clinical diagnosis. To begin with symptoms, they have major symptoms and minor symptoms. Major symptoms are facial pain ... 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 condition is purulent yehone nasal discharge yinorachewal teblo yitasebal. Other type hyposomia or anosmia ... Hyposomia decreased sense of smelling ina anosmia absence of sense of smelling eee... chief complaint stitsifu characterize mareg alebachu hyposomia or anosmia bilachu ... bitaregu yeteshale yihanal mallet new...

The observed teacher in the nursing department 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. "Pain ina congestion yileyayal ayidel?" he asked. When translated into English, it signifies that the pain and congestion are distinct. 'Ina' is an Amharic term that implies and, yet every student understands the Amharic version. The researcher was perplexed as to why she utilized Amharic in such way.'

The following medical English terms were used in the preceding extract: diagnostic, symptoms, nasal obstruction, hyposmia, anosmia, and chief complaint. According to what the researcher observed in the classroom, the word sign and symptoms, are distinct in health science or medical terminology but appear to be synonyms in everyday English. The language of Medicine is a specialized vocabulary used by healthcare practitioners (Gyls & Wedding, 2009).

Major subject area course interviews also disclosed 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, one of 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 parts have deficits. These are the problems as well."

They were also asked to describe the kind of difficulties they observed. They then responded in all areas. T1 stated, "In every aspect, there are words they do not write properly." They don't utilize it properly grammatically, thus they have no issues." As a result, these replies may imply that students had significant English language gaps when performing tasks and activities in their primary subject area courses, and their teachers were aware of the language gaps.

The researcher also posed probing questions based on the findings of the observations, such as why major subject area teachers 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 then indicated that they, too, were having 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 understandable for students. They also stated that every health science or medical instructor employs such approach ("Using Amharic in the way of speaking English") as part of their educational advancement. They also had come in similar way with the current system the students are learning. T1 responded as follows:

"As I... explain in the 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. ... 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 ... So, the instructors should support students by interpreting in Amharic for easily understanding," That is all (T1).

The subject area course instructor's replies in the preceding extract stated that they had entered the system of what students were studying English at the time. He intended to indicate that the students were learning general English in high school and a supported course at university. There is no alternative way of acquiring English language connected to health or medical language in their educational system. Gaffas (2019) also revealed that students' biggest problem was identifying the meanings of technical words, which resulted in low performance in all four English skills.



### Analysis of students' total scores on writing test

As previously noted, writing is graded independently in the PBT TOEFL test, and the average result for each student is 3.5–4.00, according to ETS. As a result, table 2 shows that the average writing score of students was 2.88, which is lower than the normal level (3.5–4.00), indicating that students' writing skills were low. This finding was consistent with the findings of Pratiwi (2021) which indicate that the results of Universitas Internasional Batam college students' writing were not adequate.

Table 3. Students' score on writing test

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

Semi-structured interviews were done with students to get detailed information about the difficulties encountered in learning major subject area courses due to a lack of required English writing skills and knowledge. Respondents addressed English language issues in general. They mentioned that it was difficult to complete or deliver assignments and interact with instructors. For example, S2 said:

It is difficult to present or do assignments and to communicate with teachers because medical English words are 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 are pronunciation problems that make me stressed. When you are stressed, you get problems to learn academically.

Therefore, the results indicate that the health science students had no problems of grammatical structure, but had problem of listening and understanding the message in English-speaking. This is against the language needed in the academic and professional settings. 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). Recognizing English lectures, taking efficient notes, asking for repeat or clarifications, identifying extensive explanations and directions in English, recognizing diverse accents and pronunciation, and expanding their vocabulary are all requirements for students' listening comprehension (Sudewi, 2021). 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 (Worthington & Bodie, 2020). As a result of these considerations, it is possible to infer that developing medical English or English for health science students is required according to the language gaps existed.

### English language gaps that existed in health science students' writing

Writing is possibly the core action of instructions, on which complex social activities such as instructing students, keeping records, connecting with clients, selling items, displaying learning, and distributing ideas rely heavily (Hyland, 2022). Hence, Table 4 aimed to identify health science student' English language gaps in their writing and analyzed as follows.

Table 4. Gaps existed in students' essay writing score in %

		Writing score		Valid Percent	Sum in Percent
		Frequency	Percent		
Valid	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		

Table 4 above shows the students' writing scores and interpretation. 9.1% of the students scored off. This means 9.2% of the students did not write on the topic assigned. 10% and 21.5% of the students' writing results show strong 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 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 means the participant student had the ability to write a well-organized, well-developed, and logical essay. Their specific examples and details supported the main ideas. All the elements of the essay were unified and cohesive. A variety of sentence structures were used successfully, and sophisticated vocabulary was employed. Grammatical errors were infrequent, but a few minor mistakes may occur.

In general, table 3 above shows 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 growth were very poor or nonexistent, and their papers lacked consistency and cohesiveness. This conclusion is congruent with the findings of the Chatsungnoen (2015) study, which revealed that students had inadequate writing skills in both academic and vocational contexts. Many students complained about a lack of writing instruction and practice because it was the least stressed in their English classes (Gaffas, 2019). In Ethiopia, as there are no writing courses for health science and medical students though the problem is boldly existing.

Instructors also replied that their students had problems of writing skills. The instructor replied that their students did not write any assignments though they know the subject matter very well. He also added that from high school background, they may be good at grammar, but they cannot write a paragraph.

“Okay, from their high school background they may be good at grammar. Their result in English national exam was very good. 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 paste from internet. That is why it is the problem. They do not write by their own they copy paste from internet,” T2.

### Professional communication gaps in the target situation

Table 5. Analysis of students computed scale score among grade level

Report			
Computed scaled score level	Mean	N	Std. Deviation
second year	505.7197	88	37.77310
4th year	485.1587	42	64.75387
Total	499.0769	130	48.86836

Table 5 above indicates the computed mean score of second-year students was 505.22, while the fourth-year score was 485.159. 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.

S3 revealed that he had no English issues before enrolling in college, but that he did have English challenges after enrolling. He reasoned 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. According to the exam results, second-year students outperformed fourth-year students. The following is information obtained from S3.

“Before I joined the college, there were no problems in speaking English, but after I joined the college, I faced problems with English because you can’t use English with others or with your friends because it is specified. The lectures cannot teach in English because they are exposed or intervene in speaking in Amharic which may affect you to speak English.”

The respondents’ responses indicate that they 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 the English course 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 content.

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, while producing English materials for university students in Ethiopia, course designers must give special attention to the demands of the students (Chemir & Kitila, 2022).

The previous quantitative data given with the test result revealed students' current status at that moment and deficiencies. This section summarizes the results of the health science major subject area class and the hospital observation supplemented by interviews. The three departments (public health officer, nursing, and midwifery) classes were observed in the first phase of the observation. The data were utilized to English language gaps that existed in the academic subject of health science. The hospital observation then offers statistics on the English language abilities required in students' future professional careers. As a result, the analysis and findings of both observations and interview are reported in this section.

The researcher observed internship students in hospital wards to investigate the English language that the health science students are expected to know in their future professional careers. The students first clerked the patient. Clerk means taking case history, conducting a physical examination, hypothesis the possible differential diagnoses, and management.

As the researcher noticed from the observation, presenting bedside means one of the internship students’ team cleric the patient and presents each and every step of the problem of the patient starting from taking the demographic history of the patient, finding the problem, and to the management of the problem or the disease and then presents to the supervising doctor. In a round presentation, every member of the group had a bed in the ward on which they cleric and present for supervisor. Different from bedside, in round presentation students conduct diagnoses practically and discuss pertinent findings. Thus, the researcher observed and audio-recorded all the activities. However, the researcher used bedside for the analysis of this study because it was inclusive.

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 management of the case in English to present to the clinical instructor. Writing, reading, speaking, listening, interviewing, and translation abilities were all required. However, as evidenced by the instruction session, learners lack these abilities. The following sample extract clearly indicates some of the situations.

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 indicate that the students still did not understand what the chief complaint meant. The instructor asked the meaning of chief complaint and gave them a brief definition that **chief complaint means the reason why the patient sick care or came to the hospital.** In almost all their discourse, the instructor spent much time explaining the meaning of technical language. Again, in the above example, the instructor asked the student how he diagnosed preeclampsia. Then, the students replied with blood pressure. The instructor guided the students saying, "okay, rise BP.) Here, the instructor added the verb 'Rise' while the student replied to the phrase blood pressure without indicating the action.

As a result of the above, it is possible to conclude that the students have difficulty using verb tenses, describing examination processes using medical terminology, and expressing temporal occurrences using frequency adverbs. From the observations, the researcher concluded that health science students lacked essential English language skills and knowledge.

Health professionals were also interviewed to provide the necessary information regarding the English language required for health science students' future professional careers via the problems they frequently face as a result of a lack of necessary English language background in their day-to-day professional activities.

As a result, respondents were interviewed to determine whether the English language has an impact on the quality of health care services provided. The questions were designed to identify gaps that arose due to a lack of essential English language skills. They replied:

"It depends. If you are perfect in speaking or taking orders 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. .. 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 the health profession without good English is dangerous for the previous reasons I mentioned," (HP2).

Both health professionals' responses had a similar viewpoint. They responded by comparing and contrasting their knowledge of the English language with their knowledge of the health profession. In short, both respondents felt that they complemented each other. According to the comments, English language gaps might cause healthcare delivery problems.

As noted by the second respondent above, a good understanding of the health profession without fluent English is dangerous, and vice versa, but they disclosed the language difficulties in the health profession. As a result, one can see how crucial English is in the medical field. These concerns were also validated by researchers in their investigations. English is clearly in great demand not only for learning but also for pursuing a medical profession (Wahyuni, 2021). 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 (Hans & Hans, 2015). Li et al. (2020) also found that the books did not include information concerning how a student should learn in their academic study.

## CONCLUSIONS

The study showed students' present situation during the time of study. Participant students had good proficiency in structure and written expression, which means 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 the interview. 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 as the health science lesson is full of medical terms written in English. The findings also demonstrated that health science students required English language abilities in order to describe a patient, a case, ailments, and treatments in medical terminology. To specify differential diagnosis, each case was represented in terms of events occurring chronologically. The observation data 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. Therefore, depending on the current findings, ESP courses that incorporate these English language gaps and necessities that help health science students perform well in both academic studies and their future profession should be designed. Finally, it is recommended that further research be conducted at Ethiopian higher education institutions in order to address students' English language needs in all fields of study.

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