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RESEARCH PAPER

Analysis of Health Science Students` Academic English Language Needs: The Case of Samara University

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Abstract

The objective of this study was to investigate the English language needs of health science students at Samara University. The study is significant because it looks into the English language skills that health science students require for academic success. This would help determine the type of English language instruction that health science students will require in their academic fields of study. Hence, 131 students from the Health Science College in the academic year 2021/2022 were chosen using a stratified sampling technique, along with, two English language course instructors and, six subject area instructors from Samara University, Ethiopia. To attain this purpose, a mixed-methods research approach was used. The data for this study were collected using a questionnaire, interviews and observations. The quantitative data was analyzed quantitatively by using descriptive statistics, mean and percentage via SPSS 25 version computer software, whereas qualitative data analysis was carried out using descriptive and theme-based procedures and was qualitatively interpreted. The coding and analysis were carried out using the NVivo version 10 computer software. This study found out why each English language skill is used in the health science academic field of study. The findings also showed that during their internship program, health science students prioritize Basic English language skills, specifically writing and speaking. Therefore, it is recommended that for health science students, English language courses should be designed throughout the undergraduate program taking into account students' academic field of study.

Keywords: Academic needs; health science; necessities; need analysis; wants

Background

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 programs 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.

Fortanet-Gomez and Raisanen (2008) state that students coming into higher education are assumed to have prior knowledge of the language. They emphasized that now most of the English taught at universities in Europe is English for specific purposes (ESP). Basturkmen (2010) points out that the needs analysis process can answer questions of when, where, and why language learners need their target language. Hutchinson and Waters (1987) suggest that any language course should be designed based on learner needs. Setting up an Undergraduate Medical English course program that takes into account the learner's aims and social demands, as well as organizing speaking and writing module hours and teaching material (Li, 2015). As Basturkmen (2010) indicates, most European universities, including American and English universities, deliver English for specific purposes.

Health care is a situation in which the success of the activities in every procedure is greatly influenced by the exchange of information(Orr, 1998). Healthcare professionals need good communication skills, reflective and practical skills, and an understanding of the ethical and social dimensions of healthcare practice (Basturkmen, 2010). McCorry and Mason (2011) point out that students preparing for careers in health care must be strong communicators; they must not only master the science and clinical skills necessary to provide quality patient care. Paltridge and Starfield (2013) indicate that language plays a significant role in most professions but is more significant in medicine than any other field because it is where effective communication is widely recognized as important to clinical outcomes. Students learn English not only to improve their language skills but also to get specialized skills that will allow them to perform the language in their major subject area of study(Masyhud, 2018). English is certainly necessary for medical students to learn and advance in their jobs (Wahyuni, 2021).

However, in all Ethiopian universities, two English language skills courses, locally called "communicative English language skills I" and "communicative English language skills II," are given in the first year as common courses. In Ethiopia, where English is taught as a foreign language, health science, and medical students take only common courses, most likely general English, in their first year. Hence, it might be difficult to satisfy health science or medical students' specific language and communication needs according to the language needs of their field of study. Though it is difficult to deliver ESP courses in each college or department in Ethiopia, the demands of the language in the health science field of study need to be considered.

In general, the common point among the above researchers and scholars is that in higher education institutions, English language courses should be designed to address learners' fields of study and professional needs. However, in the case of English language courses in use in Ethiopia's universities, they might be designed without considering the students' needs, as they are used for all students in all fields of study.

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 the 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 teaching at the tertiary level seeks special attention in Ethiopian higher education

institutions. However, 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 and 2020 respectively by the Ministry of Education (MoE). 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.

Basturkmen (2006) points out that ESP has functioned to help language learners cope with the features of language or to develop the competencies needed to function in a discipline, profession, or workplace. An ESP program is thus based on an assessment of the goals, demands, and functions for which English is required (Hans and Hans, 2015).

However, in light of students' English language needs as mentioned by the above scholars and researchers and the researcher's experience, the communicative English courses in use cannot meet the needs of the health science students as they do not enable the learners to function in their academic fields of study. The researcher confirmed that no English language courses have been designed to address medical or health science students' English language needs in higher education institutions in Ethiopia.
However, the researcher has not come across local studies conducted at the PhD level in the Ethiopian context, with the exception of recent Ph.D. theses conducted by Silesh and Tamene (2022), who investigated the importance of academic language in Ethiopia. This study focuses on the needs analysis of English for Academic purposes for university students in all fields of study, but the current study focuses on the English language academic needs of health science students to help develop appropriate courses. Several MA theses have been conducted on the problem area, including Yigzaw (1990) conducted a study to identify the communicative needs of high schools in Addis Abeba in terms of language skills and language activities, and discovered that language skills and language activities are the most common communicative needs of high schools. He stated that his research was only a partial effort to develop a course.

Seid (2007) conducted research to identify the English language needs of freshman diploma students in the police force. His study found that Cadets have high English language needs in the three domains (skills, activities and micro skills). He suggested emphasizing the type of English that Cadets should learn in order to advance their careers. Elias (2007) investigated the target and learning needs of electricity students at Dilla TVET College with the goal of developing criteria for designing an appropriate English course. Desta (2008) investigated the English language needs of fine art students at Mekelle College of Teacher Education (MCTE). Zerihun (2008) also sought to investigate the English language needs of construction TVET trainees with particular reference to 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.

Teka *et al.* (2015) investigated English for university students in Ethiopia, focusing on the implications of a needs analysis at Haramaya University. The study did not specify the fields of study. Mola (2015) also studied the need for ESP among adult English language learners at Sandford International School Adults' Evening EFL classes. His primary goal in conducting the research was to determine why adult students at Sandford International School drop out of their EFL courses. Both studies recommend ESP for higher education, but they did not specify the fields of study.

Tufaro Bunkure (2009) investigated the English language needs of third-year students at Shashamane Health Science College. His main objective was to identify more important

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 academic settings, with the goal of designing appropriate course materials. Gessese (2009) also conducted research on identifying students' language needs at private medical colleges in Bahir Dar. His main objective was to identify the language needs of medical students in Bahir Dar town in relation to ESP principles, existing textbooks, teacher opinions, executive bodies of the Bureau of Education, and medical colleges. However, the study did not consider the target situation needs.

As a result, none of these studies had the focus of the current investigation. The current study, on the other hand, investigate the English language needs of health science students in academic fields of study in order to develop relevant course material. As a result, this study sought to answer what Health science college students needs to function effectively in English as a means of learning their university academic studies. Then, the findings obtained from this study could help to design appropriate course materials that match the student's English language needs in the academic field of study. On the other hand, the current study investigates the academic English language needs of health science students to properly build course content. As a result, the goal of this study was to answer two key research questions:

1. Why are each of the English language skills used in the health science field of study?

2. What English language do health science students want to learn in their academic fields?

Materials and methods

Research design

The study employed a sequential explanatory mixed methods design to achieve the intended objectives. Plano Clark and Creswell (2015) point out 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 investigation in the second phase.

The participants

The study was conducted at Samara University, located in Afar National Regional State, Ethiopia, 590 km from the capital Addis Ababa. There was a 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 a 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). Kothari (2004) states that stratified sampling techniques are generally applied to obtain a representative sample if the population from which a sample is to be drawn does not constitute a homogenous group. The researcher used this sampling method because there was homogeneity within the department and heterogeneity among the departments. Systematic random sampling was applied to obtain respondents from each section and was included in filling out the questionnaire.

However, for the interview, 18 students were systematically selected. Dornyei (2007) suggests that a sample size of 6-10 people is appropriate for qualitative research. As a result, 18 students (6 from each department) from the College of Health Sciences were selected for the interview using a simple random sampling technique. However, due to data saturation, the

researchers only interviewed twelve students. According to Plano Clark and Creswell (2015), "saturation" occurs when researchers believe they are no longer obtaining new information from new informants and are instead repeating what 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. Two English language course instructors,

This study also employed two English course instructors as well as six instructors of major subject area courses. Two English instructors who were teaching English language courses to health science students were purposefully selected. Similarly, there were eight main major area course instructors. The interview and observations were purposefully conducted with six instructors who were teaching the major subject area courses during this study. Subject area course instructors were included in this study believing that they could provide necessary data regarding the English language needed for their students in their academic studies because instructors have experienced students' difficulties performing tasks and activities in English language. The researchers believed that subject area instructors can provide necessary data regarding the English language needed for their students from their experiences in teaching subject area courses.

Data collection and processing

Quantitative instruments (questionnaire) and qualitative instruments (observation and interview) were used to collect the necessary data required for this study.

The questionnaire sought students' opinions to assess their target needs and learning needs. The data obtained from the questionnaire gave a general picture of the research problems, which were later refined or elaborated through an in-depth qualitative exploration. The questions were on the Likert scale, which required respondents to rate frequencies on a scale ranging from never needed to always need, numbered (1-5), and on the Likert scale, which required respondents to rate their agreement or disagreement on a scale ranging from strongly disagree to strongly agree, numbered (1-5). The questionnaire was adapted from commonly used needs analysis models (e.g., Basturkmen, 2010; Dudley-Evans and St. John, 1998; Hutchinson and Waters, 1987) and earlier empirical studies (e.g., Abdullah, 2005; Alfehaid, 2011; Abuklaish, 2014, Chatsungnoen, 2015; Farhat, 2012; Fortanet-Gomeze and Raisanen, 2008; Long, 2005; Richards, 2001). Furthermore, the questionnaire was tested for validity in a pilot study.

Observation was the first qualitative data collection instrument used in this study. The rationale for using it was to directly observe what, how, and why the English language was used in health science subject area courses depending on the general picture of the results obtained by quantitative data and results.

The interview was another qualitative data-gathering instrument used in this study. It was also used to confirm the data collected through observation. The type of interview used was a semi-structured interview.

Data Collection Procedures

For ethical issues, the researcher discussed this with the concerned university's administrators and university staff and asked for their willingness. The university's academic president expressed his willingness to assist the researcher with the data collected from their college.

The researcher went to Dubti General Hospital with a letter written by the university. Then, he discussed the concern with the chief executive director of the hospital. The director expressed his willingness and wrote a letter of consent to the chief clinical director. The clinical director informed the inpatient director. The inpatient director also told other case managers to cooperate in conducting the study. The researchers obtained the following information with permission after obtaining ethical clearance and receiving informed verbal consent from the participants.

First, the questionnaire was administered. The student participants were given some instructions regarding the purpose of the study, and they were requested to respond to all the questions genuinely. They were also told that they could ask any question they wanted about any ambiguity. All 131 students completed and returned the questionnaire.

After analyzing the quantitative data, the qualitative data were shaped based on the results. From the qualitative data, observations were conducted first. The observations preceded the interview for two main reasons. Firstly, the researcher thought that if the interviews were conducted first, the instructors might modify themselves after getting the clues from the interview. The second was that the researcher wanted to add probing questions to the semi-structured interview for new behaviors observed.

Then, the interviews were conducted with a health professional after the observation was completed. Then, major subject area courses' instructors were interviewed. The next section describes the method of analysis regarding both data collection instruments.

Data analysis

In the first phase, the quantitative data (questionnaires) were collected and analyzed. Then, the qualitative data were shaped to obtain in-depth information regarding health science students' English language needs. 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 helps to plan the second phase and then collect and analyze qualitative data in the second phase to help explain or elaborates on the quantitative results (Creswell, 2014; Plano Clark and Creswell, 2015). Then, the data were collected and analyzed accordingly.

Students' responses to questionnaires were analyzed quantitatively by using SPSS 25 computer software to determine the individual responses for each of the items in the questionnaire. Using the SPSS 25 computer software, data were analyzed using descriptive statistics (mean, standard deviation and percentage). The findings from the quantitative data were discussed with the findings from the qualitative data vis-à-vis the research questions. The qualitative data were analyzed using the following procedure: First, the audio-recorded interviews and the observations were transcribed. Then, the transcripts were coded and grouped thematically. Analyses were made based on the thematic category. In the present study, computer assisted qualitative data analysis softer (CAQDA) NVivo version 10 was used. This software assisted the researchers in coding the interview and transcription of the audio-recorded classroom observations in the form of free and tree nodes. The free node can be coded in parallel with the open (initial) node, whereas the tree node is coded in axial order. NVivo version 10 was used to supplement open coding procedures, with the primary goal of creating models and visualizing data presentation in this study.

The data from the three instruments were then triangulated in order to support or validate one another. The sample quotes were also chosen and presented in the subsequent results and discussion section.

In order to maintain anonymity, the findings were analysed without revealing the names 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), and etc. In this study, we made a rigorous effort to carefully define the research questions and conduct a methodical review of the literature in accordance with the study's purpose to ensure data dependability. Similarly, to ensure the study's possible transferability, the researchers attempted to provide information about the study's participants as well as the research setting.

Results

This section includes the findings and relevant discussion. The presentation was created in response to the research questions. The quantitative results were given first in tables, followed by the qualitative results, which were then analyzed utilizing sample extracts from the data. As a result, the section that follows explains why each of the English language skills is required when performing activities in the target situation of health science, as well as what English language and skills health science students need for their academic careers.

Students' Experiences of Why are each of the English language skill used in the health science field of study

In part one of the questionnaires, respondents were asked to rate the frequency of each type of English language skill needed to do activities in their academic field of study.

Reading Skills in the Academic Field of Study

Items Q1A-Q1H were designed to find out the types of reading activities frequently needed in the health sciences field of study. Hence, health science students were assigned to indicate how often they needed reading activities in their field of study. Table 1 below shows their responses.

Table 1. Health science students' experiences regarding reading activities is frequently needed in their field of study

No.	Activities	Frequencies in %					mean	SD
		NN	RN	SN	ON	AN		
Q1A	Reading textbooks	0	13.3	60.0	17.8	8.9	3	.795
Q1B	Reading course handout	0	6.7	8.9	35.6	48.9	4.27	.89
Q1C	Reading instructions for Assignments	0	6.7	13.3	24.4	55.6	4.29	.9
Q1D	Reading study notes	0	6.7	20.0	35.6	37.8	4.04	.93
Q1E	Reading instructions for labs	2.2	4.4	17.8	28.9	46.7	4.13	1.01
Q1F	Reading test and exam questions	2.2	6.7	0	20.0	71.1	4.51	.97
Q1G	Reading newspapers and magazines	2.2	17.8	11.1	24.4	44.4	3.91	1.22
Q1H	Reading manual guide	2..2	11.1	13.3	35.6	37.8	3.96	1.09
	Total						4.01	

Note: NN=never needed, RN= rarely needed, SN= sometimes needed, ON= often needed, AN= always needed, SD= standard deviation

As shown in the table above, the majority of health science students seemed to believe that they frequently needed reading test and exam questions, reading instruction for assignments, reading course hand out, and reading instruction for labs respectively. As the responses to item Q1F above indicates 71.1% always needed reading test and exam questions and 20% of them often needed them with a mean of 4.51. The next reading they frequently needed in English was item Q1C 48.9% and 35.65% of them were always needed and often needed consequently with the mean of 4.29. Items Q1B and Q1E are also frequently needed with a mean of 4.27 and 4.13 respectively. Hence, it can be concluded that the types of reading that were often needed in the health science field of study were reading tests and

exam questions, reading instructions for assignments, reading course handouts, and reading instructions for labs, respectively.

Writing Skills in Health Science Academic Field of Study

In items Q1J-Q1Q in the following table, students were asked to rate the types of writing for which health science students always needed to do activities in English in their field of study. This could assist the researcher in identifying the writing-related activities that are always required for the health science field of study.

Table 2. Health science students' experiences regarding writing skills frequently needed in English in their field of study

No.	Activities	Frequencies in %					Mean	SD
		NN	RN	SN	ON	AN		
Q1J	writing notes from lecture notes	0	6.7	13.3	20.0	60.0	4.33	.95
Q1K	writing a note from the course books	0	2.3	29.5	25.0	43.2	4.09	.91
Q1L	Writing project reports/term papers	0	4.4	11.1	24.4	60.0	4.40	.86
Q1M	Writing lab/field reports	0	15.6	17.8	20.0	46.7	3.98	1.12
Q1N	Writing summaries	4.4	8.9	35.6	28.9	22.2	3.56	1.08
Q1O	Writing personal letters	33.3	31.1	11.1	2.2	22.2	2.49	1.53
Q1P	writing business letters or job application letters	11.1	31.1	26.7	13.3	17.8	2.96	1.28
Q1Q	Writing paragraphs or essays on a variety of issues	2.2	11.1	33.3	37.8	15.6	3.53	.97
Q1R	Writing research papers	0	8.9	13.3	22.2	55.6	4.24	1.00

In the table 2 above, the respondents were asked to indicate information concerning the type of activities they always needed, they often needed, they sometimes needed, and they rarely needed or never needed in English in doing activities throughout their educational study in the health science field. Accordingly, an equal number of respondents, 60% of them indicated that they always needed to write project reports/term papers and write notes from lecture notes while 24% and 20% of them often needed and no students rated under never needed. On item Q1R, 56.6% indicated that they always needed to write a research paper and 22.2% indicated they often needed, 13.3% sometimes needed, 8.9% rarely needed and no student indicated never needed. The next always-needed writing activity was writing a note from the course book, which is rated by 43.2% as always needed, 25.0% often needed, 29.5 sometimes needed, 2.3% as rarely needed, and no students rated for never needed. On the other hand, writing personal letters, writing business letters or job applications, and writing summaries were rarely or never needed.

As a result of the information in the table above, writing skills in English were always required in the health science field to write project reports, term papers, lecture notes, and research papers. Personal letters, business letters, job applications, and summaries, on the other hand, were not frequently required by students.

Speaking Skills in Health Science Academic Field of Study

In items Q1T-Q1Z in the following table, students were asked to rate the speaking activities that they need in their learning of the health science field of study to improve their English language speaking skills. This could help a researcher identify the speaking skills that are necessary for health science fields of study.

Table 3. Health science students' experiences regarding speaking skills frequently needed in English in their health science field of study

Activities	Frequencies in %						
	NN	RN	SN	ON	AN	Mean	SD
Q1T) Asking and answering a question in class	0	8.9	48.9	24.4	17.8	3.51	.9
Q1U) Participating in class discussion	0	6.7	42.2	28.9	22.2	3.67	.91
Q1V) Giving a presentation	0	6.7	13.3	22.2	57.8	4.31	.93
Q1W) Introducing yourself and others in different situations	0	26.7	33.3	20.0	20.0	3.33	1.09
Q1X) Stating opinions or ideas on a variety of topics in the class	0	31.1	15.6	33.3	20.0	3.42	1.14
Q1Y) Requesting to obtain different information	4.4	22.2	42.2	17.8	13.3	3.13	1.06
Q1Z) Making a telephone call	64.4	4.4	11.1	15.6	4.4	1.91	1.35

Table 3 above reveals that the speaking skills activities frequently needed in English in the health science field when giving a presentation (mean= 4.1), Participating in Class discussion (mean= 3.67), and Asking and answering questions in class(mean= 3.5), whereas stating opinions or ideas in a variety of topics(mean=3.42),introducing oneself and others in different situations (mean=3.33) and making a request to obtain different information(mean= 3.13) were sometimes needed, but did not need making a telephone call in English(mean=1.35). Thus, from these data, it can be concluded that the speaking skills in English needed in the health science field were always needed to give presentations, participate in class discussions, and ask and answer questions in class.

Listening Skills Needed in Health Science Academic Field of Study

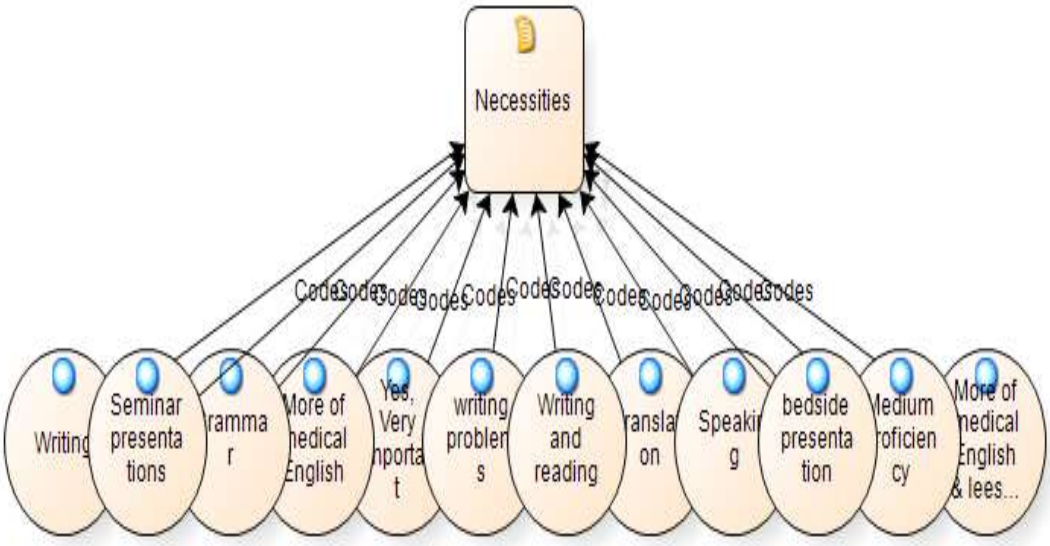
In items Q1Z2–Q1Z5 in the following table, the students were asked to rate the listening activities that health science students needed in their learning of the health science field of study in English. This could help the researcher identify the activities related to listening skills that are very necessary for the health sciences field of study.

Table 4. Health science students' experiences regarding listening skills' activities needed in English in their health science field of study

No.	Items	Frequencies in %					mean	SD
		NN	RN	SN	ON	AN		
Q1Z2	Listening to lecture	4.4	4.4	4.4	13.5	73.3	4.47	1.08
Q1Z3	Listening to class discussion	4.4	31.1	24	0.4	40.1	4	0.95
Q1Z4	Listening to the radio, TV programs, or films about health sciences	2.3	8.9	15.6	17.8	55.6	4.16	1.13
Q1Z5	Listening to instructions and explanations in labs	0	6.7	8.9	22.2	62.2	4.4	0.92

The table above reveals the health science students' opinions regarding the type of listening activities they needed in their learning of their fields of study. The finding indicated that the majority of students (86.6%) of them indicated that listening to lectures in English was frequently needed. The next most needed listening activity was listening to instructions and explanations in labs which were rated by 84.4% of the respondents. Listening to the radio, TV programs, or films about health sciences was the third listening activity that learners often needed to listen to in English as rated by 73.4% of the respondent. The mean value of each item (Mean= 4 and above) can also show that all of the listening activities mentioned were frequently needed though their degree was different. Accordingly, depending on the degree of recurrence, listening to lectures, listening to instructions and explanations in labs, listening to radio or TV programs or films about health sciences, and listening to the class discussion are listening activities frequently needed in English listening skills in the health science field of study.

Furthermore, the following models summarize why each English language skill is used in the health science field of study, based on the qualitative findings of the current study. In their semi-structured interviews, the participants of this study articulated the demands of each English language skill for the academic English language needs of health science students.



Modell 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, 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.

Health Science Students' English Language Learning Preferences

Part three of the questionnaire was aimed to identify health science students' wants, so they were asked to rate what they wished to learn or the English language they preferred to learn. Table 5 illustrates their ratings.

Table 5. Health science Students' English language learning preferences

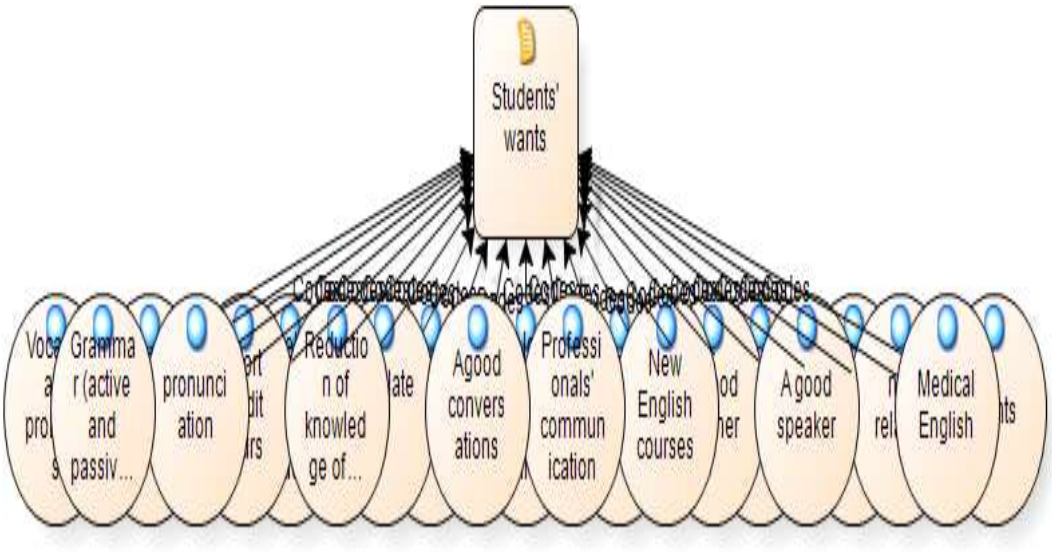
Descriptive Statistics

Items	N	Mean	Std. Deviation
Q3A. I like English for medical purposes more than general English	131	3.89	1.210
Q3B.Technical vocabulary (Vocabulary taken from health science/ the medical field is important for my academic study	131	4.51	0.727
Q3C. I prefer if the activities in the health science English language skills course materials are relevant to the health science field	131	4.24	0.981
Q3D. I want to learn English to help me in my academic study	131	4.49	0.757
Q3E. I want to learn English to be successful in my health profession	131	4.44	0.813
Q3F. I want to learn English to enjoy English culture	131	2.47	1.358
Q3G. I want to learn English just to obtain my degree	131	2.69	0.996
Q3H. I want to learn English because I enjoy learning it	131	3.02	1.234
Q3I.I like topics, activities, and content concerning health science to be included in English language skills courses	131	4.16	1.043
Q3J. I like health science vocabulary to be included in the English language skills courses	131	4.27	1.053
Q3K. I like the general vocabulary to be included in the English language skills course materials	131	3.47	.919
Valid N (listwise)	131		

The descriptive statistics in the table above show students' preference for learning the English language. The items of Q3B, Q3D, Q3E, and Q3J in the table above within the mean value (M= 4.5, 4.49, 4.44, and 4.27) respectively indicate that the respondents strongly agreed to these items. These revealed that they highly preferred technical vocabulary (Vocabulary taken from the 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 course materials (mean= 4.16), and they

preferred English for medical purposes to general English (mean= 3.89). However, as items Q3H, Q3G, and Q3F in the above table indicate, Students did not decide whether they learned English for personal interest (M=3.02) and they learned to obtain their degree, but they did not learn English to join English culture (M=2.47).

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



Modell 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 medical English and less general English, pronunciation, professional communication, and 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 the pronunciation of all medical English. If I know the 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 makes it easy for the students to understand their study.”

Discussion

As indicated in the findings section, all the data collected through questionnaires, observations, and interviews were carefully analyzed, and the results were presented and carefully discussed. Investigating health science students’ English language needs through a need analysis for the target situation, significant findings were obtained. This study investigated why the English language and skills needed to do activities in academic settings to include in future English language courses. Besides, health science students’ English language learning preferences, which help to include suitable content in the course materials, were found out. In this section, therefore, the results are elaborated in line with answering the research questions based on the findings.

The study 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. The result of the observations also indicated highly technical medical English terms are used in academic study of health science students. These findings seem consistent with Karimnia and 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 net, 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. Gylys and Wedding (2009) claim that the language of Medicine is a specialized vocabulary used by healthcare practitioners.

the study also found that English writing skills were always required 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. These findings are to some extent inconsistent with Karimnia and Khodashenas (2018). They found that writing articles were the most important and frequently used English sub-skills.

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 for a successful professional exchange without the language barrier. Popa (2013) also found that students' tasks and activities in the class include ordinary communication in EMP like evaluation and opinion formation, expressing points of view and discussing particular patient-nurse issues to more complex simulations and role-play that are implemented to different medical situations. Hashim et al. (2014) also discovered that acquiring and developing English-speaking skills to become effective communicators in tertiary education and the workplace is very important. However, this finding is a little bit deviate from Antic and Milosavljevic (2016) who discovered health professionals need oral skills more closely related to communicating with foreign colleagues and medical staff on strictly medical topics. This difference may be due to the lack of foreign colleagues in the staff and often use of Amharic with the patients, and others in oral communications in Ethiopia.

As the findings indicated, learner thought that in the academic field of health sciences, listening skills were needed to listen to: lectures, instructions and explanations in labs, radio or TV programs or films about health sciences, and class discussions in their order of degree of recurrence 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 Amharic, not in English. Karimnia and Khodashenas (2018) also found that listening to medical lectures and listening to the presentation in conferences were the most important and frequently used English sub-skills.

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 jargon. However, in Ethiopian higher education, health science or medical students studied English as a common course just like any other student.

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 according to the frequency of need, 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. Abuklaish, (2014) also discovered that science students prefer a flexible ESP curriculum that includes practice in both receptive and productive skills, 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 was 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 disparity may exist because, in the current research environment, Amharic is more commonly employed than English while conversing.

As a result, the findings of this study will assist educators and policymakers in designing effective English language courses that can improve the communication skills of health science students. The study also aims to assist students in performing effective activities in their field of study despite language barriers, as well as functioning and communicating effectively in their future profession. Furthermore, it can increase learners' interest in taking English language courses and help them improve their English skills. These can provide health sciences students with insights into the skills they will need in their academic study, allowing them to equip themselves with the necessary English language backgrounds before beginning their careers in a hospital or healthcare setting.

Conclusion

This study identified the English language skills that health science students require to perform activities related to their academic field of study. 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. The findings indicated that health science students' English language skills needed for their academic studies should be integrated into the course materials. As displayed in the discussion section, the findings revealed that the students did not learn English language skills needed in their academic field of study rather than the two English language skills courses, locally called "communicative English language skills I" and "communicative English language skills II," which are given in the first year as common courses. However, the language skills they learned from these courses never address the language demands in their academic field of study. The finding also revealed that reading skills, writing skills, speaking skills, and listening skills are consequently needed in the health science field of study according to the frequency of needs from most needed to least needed. Therefore, different English language courses that help students to pursue their academic study throughout their university education years, particularly, during their

internship programs need to be designed. The result also indicated that highly technical medical English terms are used in health science academic fields of study. Thus, it can also be suggested based on the findings that the course materials should incorporate these highly technical medical English terms. Lastly, it can also be suggested that ESP courses that incorporate teaching and learning activities, which the students need and prefer to learn from the English courses, should be designed.

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