Effects of Attitudinal Factors on Language Performance among Sudanese EAP Medical Students

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Received: November 14, 2015 Accepted: December 14, 2015 Online Published: December 15, 2015
doi:10.5430/elr.v4n4p69 URL: http://dx.doi.org/10.5430/elr.v4n4p69

Abstract
Attitudes and motivation are regarded as cardinal factors influencing language learning and language success. The present study is hence undertaken to investigate students’ attitudes and motivations towards EAP course materials and the extent to which these satisfy students' needs, and the impact of such courses on enhancing students' performance. The study population comprises 150 students from the faculties of Medicine in three Sudanese universities. Two tools have been used to collect data: a questionnaire to investigate students' attitudes and motivation and a test to measure students' performance. The researchers have employed a descriptive analytical approach and SPSS programs to analyze the data of the questionnaire and test. The findings indicate that, the vast majority of students are aware both of the position of English as the unrivalled global communicative language and the exigency of mastering that language to excel in their studies and future profession. Yet, a discrepancy exists between students' initial positive attitudes and actual performance marked by unsatisfactory results on all language components. It seems that students are held back by such negative pedagogical realities as the common core nature of the materials that are not relevant to the disciplinary and generic requirements of the medical field, as well as the teacher-centered mode of instruction that hardly utilizes the felicities of multi-media and finally, teachers’ apparent inattention to students’ opinions about their needs and preferences. Given their lack of personal involvement, most of the students resort to short-term instrumental motivation to pass examinations while leaving their actual language issues unresolved. It is recommended that, when designing their home-made EAP courses, teachers should strive to furnish varied and interesting materials to attract students and engender higher levels of intrinsic motivations.

Keywords: EAP, Attitude, Motivation, Medicine, Home-made Materials, Sudan

1. Introduction
The unprecedented rise of ESP/EAP in the latter part of the 20th century relates to the development of English as a global language. One in every five of the world's population now speaks English with reasonable competence (Crystal, 2003). This is undoubtedly due to the economic strength of the Anglophone countries notwithstanding the fact that English ranks fourth in terms of numbers of native speakers. Moreover, English is now established as the world's language of research and publication (Graddol, 1997; Hyland, 2006, 2009) and more universities and institutes of learning are using it as the language of instruction. Indeed, English is considered by prestigious institutions to be the global language of Science, and many academicians, researchers and publishers unconsciously regard English as the default language of knowledge dissemination (Lillis and Curry, 2010: 1). This being so, there has been an understandable parallel growth in the preparation of non-native speakers for studying in English. This is taking place first in English speaking countries such as the United States, Great Britain and Canada. But, according to Flowerdew (2001), this is equally manifest in both nascent world powers such as China and Russia as well as post-colonial territories such as South Africa, Zimbabwe, Hong Kong (and, arguably, Sudan) where English, though not the national language, is retained as an effective lingua franca for dissemination of scientific knowledge.

The inception of ESP in the University of Khartoum, Sudan’s oldest institution of higher education, was in 1970 under the umbrella of English Language Servicing Unit (ELSU) following the Arabicization of Secondary education in 1965. That was ten years after the country’s independence from British colonialism throughout which all secular
education was conducted in English (Al Busairy, 1991). Following Pitia (2003), three phases can be distinguished in the process.

The first one extended from 1970 - 1990, during which ESP courses were mandatory for all faculties, except faculties Education and Arts which had their own English language programmes. All students studied a one-year course totaling 60-90 hours per academic year (three hours weekly). All the preliminary students were given a one-year course totaling 60 hours before embarking on their respective studies excepting the faculty of Science where ESP was taught in a two-year course with a total of 100 hours. In terms of materials, the ELSU was abreast with the world, and hence used functional- notional ESP textbooks such as the Focus Series (Widdowson, 1974) and the Nucleus Series (Dudley-Evans, 1976). A great impetus to the Unit was the presence in the University of Khartoum of British instructors led by the prominent ESP author John Swales, as well as the publishing of ESPMENA journal. However, in 1983 the Council of University of Khartoum adopted Arabicization in the faculties of Law, Arts and Education, while the other faculties were instructed to follow suit as of the 1984 academic year (Braima, 2004).

The second stage (1991-1998) was characterized by mass Arabicization in 1991 following the political and cultural upheaval brought about by the Islamists reaching power in 1989 and the subsequent massive increase in numbers of universities. Abrupt educational changes followed: the entrance exam was cancelled in 1990, and a new four-year General English-oriented course totaling 120 credit hours was introduced despite the haste in preparation and resistance by teachers who continued to work with the old materials. Even worse, English was relegated to a university requirement on a par with the newly introduced subjects such as Arabic and Islamic studies. Pitia (2003) mentions that ESP teaching deteriorated as it became more teacher-centered and emphasized common core structural approaches to classes whose students more than doubled in number.

The final phase started in 1998. In that year, an English department responsible for teaching ESP replaced the ELSU, and together with other university-required subjects, were transferred to the Administration for University Requirements (AUR). More importantly, a two-year syllabus with a total of 90 hours, partly General English-based and partly ESP-based was introduced. This syllabus, or its equivalent, to the researchers’ best knowledge, is still in use now (October, 2015) in many Sudanese EAP contexts. Yet, the question remains of whether these successive abrupt changes were accompanied by adequate research into the educational outcome and, more significantly, the learner, his perspective, prejudices and predilections regarding the English language. It is with two terms most intertwined with the affective aspect of learning that this research is concerned, namely attitude and motivation.

2. Literature Review

The following section will be devoted to providing highlights on the nature and basic taxonomies of the two key terms in this study, namely attitude and motivation.

2.1 Definition and Classification of Attitudes

Attitude is one of the central factors which is associated with and influences foreign language learning (Gardner 1985: 10). Eagly and Chaiken (1993) define attitude as a learned evaluation of a particular person, behavior, belief or emotion. Attitude is hence seen as a tendency to react favorably or unfavorably towards a designated class of stimuli. Moreover, Wenden (1991: 52) sees attitude in terms of three components: (affective component, cognitive, and conative or behavioral component). This has become conventional in the field, as exemplified by this definition for attitude which includes these three components in addition to a new fourth one (behavioral intentions), has been suggested by Zimbardo and Leippe (1991: 15):

Attitude is an evaluative disposition toward some object based upon cognitions, effective reactions, behavioral intentions, and past behaviors ... that can influence cognitions, affective responses, and future intentions and behaviors.

Attitudes can be classified into various types, depending mainly on the object of attitude, as well as the way through which attitude is measured. Following are the most common classifications. 'Explicit attitude' has been defined as a person's conscious views towards something, i.e. the person is aware of his feelings in a certain context (Fazio and Olson 2003). This definition implies the traditional concept of attitude (the one with conscious state towards an object). The second, 'implicit attitude', is viewed by Greenwald and Banaji (1995: 8) as introspectively unidentified (or inaccurately identified) traces of past experience that mediate favourable or unfavourable feeling, thought or action. Additionally, the two psychologists apply the terms deliberate for explicit attitudes and automatic function for implicit attitudes. More akin to linguistics, Gardner (1985: 10) categorizes attitudes into two groups in terms of specificity or generality parameters depending on the way attitude object is classified. It is specific when the attitude
object is geared towards a certain activity in the learning process are required. This stands in contrast to the broader general attitudes towards foreign languages learning, and the attitudes towards English language learning. Another typology is social as opposed to educational attitudes for language learners. The first type refers to attitudes towards the community of language being learnt, and the second one attitude towards the elements that are related directly to the process of learning a language, such as the learner's attitudes regarding the course materials, the teacher or the language itself.

2.2 The Importance of Attitudes in Language Achievement

Attitudes play an effective and important role in learning and teaching process. The study of attitudes in relation to language learning directly concerns the three main components of language teaching-learning process; students, teacher and the curriculum. Sauvignon (1976: 295) expresses the view that attitude is the single most important factor in language learning. Learners' attitude towards language learning is regarded by Zainol Abidin, et al. (2012) as one of the main reasons which gravitate learners to study a language. Likewise, Karahan (2007: 84) contends that positive language attitudes draw learners to have positive orientation towards learning English. Attitude can facilitate language learning process and improve students language success. Furthermore, Fakeye (2010) stresses the existence of positive relationship between students attitude and their English language achievement. While positive attitudes ease language learning and are indispensable in language success, in contrast, negative attitudes may hamper language success because it works as one of student's psychological barriers. This point of view was explained by Krashen (2006: 15) when he claims that, negative attitudes would block students' affective filter, so that students cannot understand the input, and this causes failure in language learning.

In addition, it can be claimed that, students' attitudes towards the specific language group are bound to influence how successful they will be in incorporating new aspects of language. Abu-Rabia (1997: 126) also, confirms the role of integrative attitudes in advancing successful language learning, students who possess sympathetic attitudes toward the target language speakers and their culture were found to be more successful in acquiring the second language than were those with negative attitudes. This is ascribable to the reciprocal and inextricably intertwined relation between language and culture, Indeed, Bergman et al., (2007: 526) cement this view by regarding language as the repository of human culture, our identities, ideologies and discourses. The significance of psychological factors to language learning now indisputably established.

2.3 The Concept of Motivation

On a par with attitude, motivation is one of the cardinal concepts and factors which influence language learning and language success. According to Hall (2011: 134) it is difficult to conceive of anyone learning a language without some degree of motivation. Though the term motivation seems easy to define and understand, many researchers in psycholinguistics agree that motivation is a highly nuanced term that is difficult to be recognized. For instance, Arnold (2000: 13) regards motivation as a cluster of factors that energize the behavior and give it direction. Richards et al (1992: 238) define motivation as the factors that determine a person's desire to do something. Similarly, Loewen and Reinders (2011:119) define motivation as “a psychological construct that refers to the desire and incentive that an individual has to engage in a specific activity”. This implies that motivation is something that triggers people to act or do things in order to fulfill certain needs. This definition is synonymous with another which describes motivation as "determinant and controller" of human actions, is included in Encyclopedia of Applied Psychology (2004 :626) "More directly, motivation is often defined as that which determines the form, direction, intensity, and duration of one’s actions." Hence, motivation is a catalyst energizing us, providing a sense of purpose, and helping us to choose the appropriate behavior and exerting the necessary effort for achieving goals.

2.3.1 Motivation in Language Learning

The relationship between motivation and language learning has been investigated a great deal in the field of psycholinguistics. There is a consensus among researchers that motivation is one of the main effective factors which influences language learning and language achievement. Some of these researchers, have even made a comparison between motivation and other effective variables on language learning such as intelligence and aptitude. Regarding the role of motivation in language success, Dornyei (2001: 2) states that motivation is related to one of the most basic aspects of the human mind, and most teachers and researchers would agree that it has a very important role in determining success or failure in any learning situation. Similarly, Lifrieri (2005: 4) explains this idea as follows: when asked about the factors which influence individual levels of success in language learning, most people would certainly mention motivation among them. According to McDonough (1983: 142), "motivation of the students is one of the most important factors influencing their success or failure in learning the language". Results of scholarly research are corroborated by the common observation among educators that the highest level of achievement in
foreign language learning is attained by students with the greatest impetus to excel in language. Finally, as Morgan (1993: 63) points out, the close correspondence between attitudes and motivation needs to be stressed. When a learner has positive social attitudes to learn the language, that means he likes the society of such a language, and wants to know much more about the speakers and their cultures, or even to behave like and integrates with them. This intention, of course, culminates in reinforcing the learner's motivation to learn the language, and promotes language success.

2.3.2 Motivation Typologies

Motivation has been broadly classified according to different criteria. The designations of the first two types of motivation are intrinsic and extrinsic motivation, the former being one that is generated inside the classroom through the choice of instructional activities", while extrinsic motivation is defined as the type of motivation that students bring to the language classroom (Ellis, 2004: 536). Those who are extrinsically motivated behave or act in order to “receive some extrinsic rewards", but the intrinsically motivated ones work for internal rewards; to enjoy or to satisfy curiosity. More substantially, however, the most commonly discussed duality is between integrative and instrumental types of motivation. According to Dornyei, (2001: 16) a student who is integratively motivated, has a desire to learn a language because he intends to move to a country where this language is spoken. Alternatively, the learner wishes to familiarize himself to the culture of such group (favorable attitudes toward the language's speakers and their society). In contrast, in instrumental motivation, learners study the language in order to benefit from it. This signifies that language is used as an instrument to achieve some goals. One is led to learn the language on the grounds of its utilitarian value (Brown, 2000: 162).

2.4 Related Studies

Due to constraints of space, the review of related literature will be confined to an outline of studies conducted on attitude and motivation in Arab settings due to the oscillation between Arabic and English in higher education as well as the affinity in cultural norms and ambivalent views of Western communities. Related available Sudanese literature will be allotted more detailed discussion.

There have been two strands of Arab research into students’ attitudes and motivation towards study of English in relation to language proficiency. Some studies (e.g. Al-Quadi, 2000; Qashoa, 2006; Al-Zubeiry, 2012; Sase et al, 2014; Al-Samadani and Ibnian, 2015; Al-Sohbani, 2015) have investigated the prevalent mode of motivation among students specializing in English, based on Gardner’s’ duality as well as factors of level, age and gender. All in all, these types of studies seemed to suggest a strong link between linguistic excellence and positive cultural attitudes towards the English community in the form of integrative motivation. The other group of Arab studies (e.g. Akram, 2015; Abu- Ghazaleh and Hijazi, 2011; Yousef et al, 2013; Al-Tamimi and Shuib, 2009) concerned itself with the motivation intensity of students learning English as an EAP subject. In all the studies we have reviewed, students have expressed a high degree both of awareness about the role of English in their personal and professional life as well as a resultant fervent desire to master it due to its utilitarian value. The accompanying cultural attitudes were generally favourable and the degree of proficiency reasonably high. Indeed, some of the studies involving arts and science students indicated that the instrumental motivation dominant among the latter corresponded with higher levels of achievement.

In the Sudanese context, the studies have been few and far between. Like the Arab studies, those related to students majoring in English will be dealt with first. For instance, Abdallah and Ahmed (2014) investigated the impact of the related feature of self-confidence on EFL Sudanese English majors. The sample consisted of 221 from two Sudanese universities. The study focused on the relationship between students' self-confidence, academic performance and oral communication. The correlative design involved students’ questionnaire on communicative competence as well as a teachers’ interview. The findings underlined a positive, significant correlation between self-confidence, oral communication proficiency and academic performance. The students who scored high in the self-confidence questionnaire also had high scores in oral communication test and academic performance.

Humaida (2012) undertook a study to examine the level of significance between intensity of motivation and such factors as students’ level and age. His sample comprised 140 male students studying at the faculty of Arts, Omdurman Islamic university. An unspecified motivation scale was administered together with a T. test and Pearson correlation. The results indicated that while motivation scores corresponded to language proficiency, class level and age seemed to play an insignificant role in relation to motivation.

Another study has been undertaken by Ishag et.al (2015) attempted to investigate the significance of motivational and attitudinal factors in learning foreign languages, namely English and German among Sudanese undergraduate
students. The sample consisted of 221 students studying English and German at the university of Khartoum. The study explored motivational and attitudinal factors based on Gardner’s scale. The results indicate that English language learners are integratively motivated. However, there are no differences along the variables of academic grade and study level.

The other type of research dealt with learning English in an EAP context, mainly medicine. The first one is by Elsanousi (2006) who investigated attitudes and motivation of university students towards English language learning. In the review of literature, a clear and detailed presentation has been given to attitude and motivation, but the area of ESP was barely treated. Generally, the researcher has reached the following findings. Students are not interested in learning English as university required courses. Teachers have no motivation to teach such courses. University policy has a major role in these negative attitudes and motivation. In many ways, this study is reminiscent of the research by Braima (2004) which explored the situation of English EAP courses at the university of Khartoum. While this study shed light on many shortcomings in syllabuses, strategies and training, it has restricted itself to the view of teachers and the perspective of the learners is, unfortunately, lacking.

Yousif (2002) analyzed the major factors affecting ESP teaching and learning in the Sudanese college of medicine. From the title it seems that there is a relation between this study and the present one, nevertheless attitudes and motivation as psychological factors have not received attention in this study. The researcher has considered two related educational factors; the first one includes ‘course materials and course design’, and the second one concerns ‘evaluation and testing’. In collecting data for this study, the researcher has also used questionnaire for students and teachers. The two questionnaires comprised a good selection of related items. The results of this study revealed that learners are inadequately motivated, and neither efforts nor attention are given to learn the courses, teachers of ESP are not trained, excessively overloaded and lack motivation. Additionally, methods are quite traditional, the emphasis is on writing and listening skills and the audio-visual aids are rarely used, materials are repeated, boring and irrelevant to students’ specialization, finally, the assigned textbooks are not available and fail to cover the students’ needs.

The most recent study is by Daffa Allah (2015) who investigated ESP learners’ needs at some Sudanese universities, specifically medical students taught through the medium of the English language. Learners’ needs were divided into three categories: general purposes, academic purposes and job purposes. A students’ questionnaire was utilized to gather data at some target universities. Findings indicated that, generally speaking, students equally ranked these three types of needs. On one hand, there was an urgent need for English to savor daily activities like watching films or browsing the content of the internet. No less important was the need to appreciate medical lectures and take notes. Finally, students overwhelmingly deemed English crucial for future professional advancement.

Having briefly surveyed Sudanese literature on attitude and motivation in relation to learning English, certain comments need to be made to prepare the ground for the current study. To start with, one can instantly note the dearth of attitudinal studies in Sudan. Secondly, building on the pioneering work of the Sudanese researcher Al Busairy (1991), such studies have almost exclusively concentrated on English majors, and the objective has been to determine which of Gardner’s constructs guarantees more language success. As narrated in the introduction, Arabicization has been more or less established in Sudanese science domains, yet all of the studies outlined above are more concerned with assessing the conditions of EAP teaching rather than providing an in-depth account of this duality of instruction in Sudanese universities from the perspective of the learner. The current study aims to address this gap by building on the model of the Arab EAP motivational studies. That essentially involves combing an analysis of attitudes and motivations employing insights from Gardner’s taxonomy that has hitherto been reserved for students majoring in English in Sudan.

2.5 Questions of the Study

In investigating the research problem, the following questions will be posed:

1. What type of relation exists between students’ attitudes and their language performance?
2. To what extent are students aware of their personal and professional needs for English language?
3. Which kind of motivation is the primary source of impetus for medical students?
4. How do the findings of the present study compare with related investigations regarding nature and intensity of attitudes and motivations?
2.6 Limitations of the Study

The present study is intended to investigate students' attitudes and motivation in relation to English language performance in Sudanese universities. The study was confined to 150 second year males and females medical students in the academic year 2013-2014 at three universities, the selected sample regarded as a whole. Moreover, the population were drawn from different regions in Sudan in order to permit a reasonable degree of generalizability. A questionnaire and a proficiency test were utilized to collect data for this study, finally, it was not feasible to analyze factors of age or gender for their potential relation to intensity of attitudes and motivation.

3. Research Methodology

3.1 Population

The target population of this study represents second-year medicine students in Sudanese universities who studied English language for two years. The sampling was based on simple random selection to include a total of 150 second-year students, from three universities (50 from each university). Care was taken to include males and females in this homogeneous sampling who belong to the same age range, field of specialization, academic and language knowledge background. In addition to learning English as one of school subjects in secondary schools, at present (the academic year 2013/2014) they have already finished the fourth course of English language. Individuals in the selected sample are expected to answer the test as well as voluntarily response to questionnaire's items. The three universities, on the other hand, were deliberately selected to represent, the country's metropolis (Khartoum university), a central-area regional university (Gezira university) and a peripheral region (Kasala university). Based on this variation, the final findings of the study could be generalized to all Sudanese universities.

3.2 Instruments

The data of this research has been elicited through two instruments. A questionnaire and a test for students.

3.2.1 Questionnaire

A structured questionnaire was designed and written as a basic tool in collecting data for this study (Appendix A). It investigates students' attitudes and motivation towards English language courses in the Faculties of Medicine. The questionnaire comprised two sections; the first part (statements 1 to 19) are about attitudes towards different variables, such as, English course as general, materials, teachers and time of teaching. The second section (from 20 to 30) investigated students' various types of motivation (instrumental, integrative, internal, etc.). Every item in this questionnaire was explicitly designed to directly address the research problem.

3.2.1.1 Reliability and Validity of the Questionnaire

In order to obtain more verified and accurate information, the researchers revised this questionnaire many times over and consulted a panel of experts for proof reading. Moreover, the researchers employed a wildly used method for instructing questionnaires developed by Gardner (1985), namely, "Attitude/Motivation Test Battery (AMTB)". Referring to the reliability of the Test, Gardner (ibid) states that the Cronbach Coefficient assesses the degree of homogeneity of the items and indicates the extent to which each scale is internally consistent. His detailed calculations reveal that the Cronbach for all scales substantially exceeds .70 and that the median reliability for the total items is .85. Yet, it was imperative to calculate the reliability of our test based on Gardner and designed for a Sudanese context, as detailed below.

i. Reliability

Reliability is a term that is used when the assessment tool has the capacity to perform accurately its intended purpose when it is applied again over time. The basic idea of reliability, as stated by Huck and Cornier (1996:76), is summed up by world consistency. The same thought on reliability has also granted before by Black and Champion (1976: 232) as "ability to measure consistently". The consistency here, is simply used to denote that the same questionnaire gives same outcome when it is repeated again, so it is a consistency of the results. A number of methods have been adopted in measuring reliability of which the researchers decided on the “Split-half reliability” method. First, the common measure of correlation “Pearson’s Correlation Coefficient” is applied with its following formula:

\[ R_{xy} = \frac{N \sum XY - \sum X \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}} \]

Where: N = Number of items.
X = Odd numbers. 
Y = Even numbers. 
N = 30

\[\sum X = 1647\]
\[\sum Y = 2843\]
\[\sum X^2 = 92527\]
\[\sum Y^2 = 271507\]
\[\sum XY = 157933\]
\[\sum X \sum Y = 4682421\]

When applying the above formula to show the correlation between the two halves (split-half reliability), the following result has been obtained:

\[R_{xy} = 0.88\]

Assume that \(R_{xy} = C\).

Then, after attaining this correlation, the widely used formula of “Spearman-Brown” is applied to calculate the total reliability (r) of the test, as follows:

\[r = \frac{2C}{1+C}\]
\[r = \frac{2 \times 0.88}{1+0.88} = 0.936 = 0.94\]

Based on this statistical result, it is clear that the questionnaire has a satisfactory level of reliability.

ii. Validity

While reliability refers to stability of measured results in other repeated application, validity is used to mean the degree to which a questionnaire reflects reality. According to Joppe (2000: 1) validity determines "whether the research truly measures that which it was intended to measure or how truthful the research results are". This study used a questionnaire to investigate attitudes and motivation. The items it contained were designed to directly assess these two variables, thus ensuring an appropriateness known as 'content validity'. Content validity cannot be measured statistically, rather, it was created by the researchers and approved by referees who amended the questionnaire. The questionnaire was classified into two main sections with different subdivisions related to the independent variables. The questions, moreover, formed a harmonious chain. Also, each group corresponded to its respective domain and, hence, guaranteeing that the questionnaire has 'internally valid'. Since the questions were designed to obtain results to be generalized to all population and other related populations within the same area, it is reasonable to assume that this questionnaire is 'externally valid'.

The implementation of validity is based on the presence of reliability; that is, if a questionnaire is unreliable, it is not possible to prove its validity. "Reliability analysis is often viewed as a first-step in the test validation process" (Wells and Wollack, 2003: 3). “Spearman-Brown” constitute a formula which is applied (based on the calculation of reliability) to calculate the validity (v), it is simply:

\[v = \sqrt{r}\]
\[v = \sqrt{0.94} = 0.96\]

This statistical result reflects an ideal questionnaire validity.
3.2.2 Test

A test is essentially one of the procedures that are utilized to attain a response on certain subject. It is one of the important measurements associated with teaching and learning process. Test is defined by Brown (2000: 219) as "a method of measuring person's ability or knowledge in a given area". It usually consists of some questions for examinees to answer, and sometimes it may contain activities to be achieved. The present EAP test was a performance test assessing the language ability and knowledge of the specialist field, it was designed to examine Medicine students' English language performance. It attempted to reflect their abilities of using language within the level and the context they study in. Testing students' performance, as well as improving both instruction and learning, was used to reveal the efficiency of the textbook materials in uncovering students language needs and determines whether there is a flaw.

The three participant groups of the study were given the same test, containing three sections. The first one was reading comprehension to test students' ability of understanding what they read (a text related to medicine extracts and revised from education.com). The passage was followed by short questions, and vocabulary questions (medical terminology) including antonyms and synonyms. The second section was about grammar regarding different aspects such as conjunctions, prepositions, passivisation and affixation. The last section tested participants' writing skills through paragraph development. Different techniques such as multiple choice questions, short answers, odd word out and matching were used to test these skills. The selected text and the paragraph topic were related to students' field of specialization. In addition, the grammar included was also taught in the curriculum and students were, therefore, expected to perform well.

3.3 Procedures

The final English version of the questionnaire was distributed among the students in the lecture room. Due to limitations of time, it was not possible to conduct a pilot test. Students were asked to tick (✓) on one of the five options in front of each statement, including: strongly agree, agree, not sure, disagree and strongly disagree. The whole process (for each group) took about fifteen minutes. The subjects seemed to be in a good mood and carefully answered the questions, though some inquired about a few points for further clarification.

The test was also amended many times to ensure clarity in its layout and that the manner of questions corresponded to students' educational and language background. Since the exams papers were distributed to students, the total time consumed in answering the questions and collecting papers was about 80 minutes. Before they started answering the questions, students were again reminded that their participation was of great merit in collecting data for the study and that would be used only for the purpose of this research. To determine students' results, the responses were marked and revised by the researchers and two other English language teachers.

4. Findings of the Study

This part presents the collected data, analysis and discussion. Two tools have been used to collect the data; a questionnaire and a test for students.

4.1 Analysis and Discussion of the Questionnaire

The quantitative data of the questionnaire was analyzed using SPSS computer program. In descriptive analysis, basic numerical summary of data is presented in a form of frequencies and percentages to probe the participants' responses.

Statement One: "I get many benefits in my study from English requirement courses". The purpose of this statement is to reveal the extent to which students benefited from English courses they have studied. The responses are summarized in the table (Appendix A). This result indicates that (40%) acknowledge reaping many benefits from the courses, though about (51.3%) of the students disagree with this point. This result shows that half of the participants do not gain much from the EAP courses.

Statement Two: "I attend seriously all the lectures of English courses". This statement is about the degree of attendance and the results are displayed in the table appended: This table reveals that (50%) of the sample attend the lectures seriously, whereas (40%) are not keen on presence. Even though the attendance is about half of the total number, the absence or irregular attendance of (40%) of the class can undermine the very learning process. Subsequently, the low performance may be the final result of this intermittent attendance.

Statement Three: "I always ask my teacher when I do not understand something". It is intended to see the students' attitudes towards one of the types of classroom participation and asking the teacher some illustrative questions. According to this table (63.3%) of the students disagree with this statement, while only (22%) of them agree. The
result of this statement reveals that about two thirds of the students do not ask the teacher illustrative questions when they do not understand something. So these students are not involved in this type of classroom participation.

**Statement Four:** "I revise what I learn regularly at home". Statement four is designed to evaluate the 'domestic environment, being one factor that shapes attitudes towards language learning and used here to signal conducive home facilities and atmosphere. The results are summarized in the table attached. The table reveals that (67%) of the students do not regularly study and revise English lessons at home, and only (21.6%) undertake this activity, including language skills practice as well as doing homework and exercises. This result may be attributed to two reasons, the first being that students essentially embrace negative attitudes towards learning or practicing the English language, or, alternatively, their home environment does not encourage them in doing so.

**Statement Five:** "If English courses were optional, I would never study them". This statement blatantly reflects, students’ attitudes towards the English language courses they learn. Based on this table, (58%) would not study English courses if such courses were elective, whereas 31% enjoy learning these courses even if they are non-compulsory. This result confirm that the majority of students do not like taking the English courses they are assigned. The end result reflects students' superficial views, since they regard the courses as burden imposed upon them.

**Statement Six:** "I think the materials in English courses are sufficient to meet our needs". The objective of this statement is to investigate the sufficiency of English courses materials for students’ needs. The results are presented in table (Appendix A) below. It is clear that (78.6%) of the learners declare that the English materials are not enough to satisfy their needs. Only (11.4%) agree to the opposite proposition. Based on this result, it could be concluded that the present teachers’ made materials are not enough to meet students’ needs. When designing a course for academic purposes, it is necessary to bear in mind learners’ actual needs as a point of departure.

**Statement Seven:** "The materials are very traditional and repeated". Like the previous one, this statement is included to measure students’ attitudes toward the course book materials. The results are summarized as follows: the majority of the respondents (82.6%) concur that the materials are conventional and hackneyed, whereas only (12.7%) of the students adopt the converse idea. Given how important language learning materials are, only little attention has been paid to materials evaluation and development as a part of this study. Material systematic modification is apparently useful in both enlightening and familiarizing teachers about strengths and weaknesses of the course book. Unlike generic materials, tailored materials can enhance students’ motivation and interest through furnishing opportunities for using authentic and current language to foster real communicative language use.

**Statement Eight:** "The materials help me more in using language outside the classroom". This statement was meant to verify if students are capable of utilizing language in real life communication. It is obvious from the results illustrated above that (72%) of students are unable to use language outside the classroom, while (17.3%) are able to function in everyday situations. One of the basic needs and aims of EAP course, is to instill in the students the confidence communicate freely in the target language. Therefore, when designing a course for medical purpose, practitioners need to consider how materials effectively achieve communicative purposes in both, medical, and everyday settings.

**Statement Nine:** "The language I learn help me more in reading English books and magazines". While the above statement gauged the use of language for oral communication, this one is used to assess the role of language in facilitating reading books and magazines of general interest. From the table (Appendix A) it is obvious that it is not feasible for the greater part of the sample (67.3%) to employ classroom language in reading English magazines and newspapers and only (20%) agree to this statement. To enable students to use the language in genuine communication as well as reading published materials, authenticity should be guaranteed. Authentic materials enhance students’ attitudes and motivation and develop the sense of purpose, inasmuch as such materials are considered as a real benchmark for simulating the concrete language of the native speakers.

**Statement Ten:** "There is no direct relation between the content (topics and terminology) in English course and what is found in the references of medicine". This statement considers the terminology included in the course books and their adherence to those found in medicine references. It is clear that 48% of the subjects refuted this claim, i.e. they testify to the existence of such direct relation. On the other hand, 36% denied the absence of direct relation between the content in English course and what is found in the references of medicine. Relevancy in terms of topics and terminology, as mentioned earlier, is one of EAP course book fundamental characteristics. To meet their intended purpose, such topics and terminology should be varied, well-graded and appropriate to students’ needs.
Statement Eleven: "The course needs more additions and modification to satisfy our needs". While the previous statement investigates the relevancy, this one endeavors to examine the sufficiency and regularity of the students' needs. The result of this statement is shown as follows: the majority of the sample (90.6%) agree or strongly agree that, in order to fulfill their needs, extra tailored materials should be added to the course. In addition to usual reading texts, course book modification can be achieved by applying verities of appropriate discourse (dialogues, conversations, discussions, etc.), and designing interesting language activities and tasks. To guarantee its efficiency, constant evaluation and development should be implemented regularly.

Statement Twelve: "The language and terminology in the running courses will help me afterward in my work". This statement concerns the terminology and language included in the running English courses. Considering this table, it is clear that (56%) of the subjects expect to reap benefit from the terminology and language found in the current course, i.e. it will help them in practicing the medical profession. Only (30%) of students regard such components as ineffectual in health care communication contexts and writing medical reports. This finding lends support to statement ten above, and potentially indicates that students are aware of what is termed remote needs.

Statement Thirteen: "The timetable is not suitable". The aim of this statement is to explore students attitudes towards the time in which lectures are normally taught. According to this table it is clear that (92%) of the students agree or strongly agree with this statement, whereas only (6%) of them disagree. The time or 'timig' (the time of teaching during the day) is one of the factors which determine students’ attitudes, and makes a difference to what can be achieved in the lecture room. The result shown above reflects that the majority of the participants believe that the time of the English lectures is unpropitious.

Statement Fourteen: "The teacher uses different types of teaching-aids and up-to-date multi-media". This statement concerns the aids or the tools which are used by the teacher to facilitate teaching and comprehension. This table illustrates that, only (13%) of the students agree with this statement, whereas the majority of the them (85%) do not believe that the teacher employs varied types of teaching-aids and up-to-date multi-modalities. Audio visual aids are used as psychological factors to motivate students, they draw students' attention and thereby facilitate learning process and language performance. Furthermore, multi-media could help in ameliorating student' understanding and create a felicitous and motivating teaching-learning environment through presenting materials in more engaging forms.

Statement Fifteen: "The teacher spends the lecture' time just talking and writing on the board". The aim of this statement is to delve into the students' point of view regarding how teachers spend the span of the lecture. The result is as follows: (59.4%) of the participants agree with this statement, while (30%) of them disagree. Thus, it be gleaned from the responses that the teacher spends the time of the lecture almost wholly speaking and writing on the board. whereas (30%) are in disagreement. When the teacher speak and or write for a long time, there will be a perceptible lapse in students’ attention. To motivate students and sustain their interest, teachers should give them the concurrent opportunity to listen, take notes, digest what has been said and to participate in the lecture.

Statement Sixteen: "We regularly practise the four skills with our teacher in the classroom". The objective of this statement is to investigate whether the teacher integrates the four language skills. As represented by the table, the greatest proportion of subjects (75.4%) disagree, and (14%) agree with this statement. Accordingly, based on the answers of three quarter of the participants, the four language skills are not practiced simultaneously in the classroom. This result underpins the lack of activities enhancing the variety and spirit of the lecture, as well as inefficient classroom interaction which compromises students motivation and negatively impact their language performance.

Statement Seventeen: "The method used by the teacher is good and attractive". Like the three previous statements, this one also investigates students' attitudes towards teachers, through judging their teaching practices. The figures prove that (44%) of the students believe that this way of teaching is fruitful and attractive. On the other hand, (46.7%) do not agree with the statement. According to roughly half of the subject it is evident that the methods applied by teachers were not engaging and judged as unacceptable by students. When losing confidence in the method, students will become demotivated, on the strength of the fact that the teaching method is one of the factors which influence motivation and facilitates learning process and consequently, improve students' performance.

Statement Eighteen: "I learn English language because it is a required course". The eighteenth statement is used to reiterate the idea of statement 'five' above; (students' self-determination in deciding to study English as a required course). Again, as presented in the above table it is clear that (60%) learn English language because it is required by the university system compared to (37.4%) who disagree with this statement. As well as reflecting the superficial view of the subjects (negative attitude) towards English language, this statement also reveals that two-third of the students are intrinsically demotivated. This result again confirms the findings of statement five above.
Statement Nineteen: "I read and revise English courses merely to get high marks". This statement investigates the reason of studying and revising English language. The table shows that (65.4%) of the selected sample care for English as one of academic subjects (merely as school subject) merely to attain high marks, while (30.7%) disagree with the above statement. This type of consideration reflects a disinterest towards the language per se. The main objective of learning and practicing English, like another languages, is to accomplish and use its skills efficiently (receptive and productive) as a means of communication. For the overwhelming majority of students, the primary motivation here is instrumental i.e. language is considered a means to an end (for utilitarian purpose which is merely, attaining high marks).

Statement Twenty: "English language is a source of social prestige and respect". This statement is designed to uncover another type of students' attitudes, i.e. attitudes towards language speaking society and culture (social attitude). The table below represents the attained result: As has been displayed in this table, (55.4%) of the subject believe that English language has a symbolic power as a source of social prestige and respect, while (34.4%) do not think so. The prestige here, is not a mark of the language itself but rather the features of the people who speak such language. This feature has been reflected in various cultural aspects of the society. To have positive attitudes towards language society, is to respect, appreciate and like the speakers of such language and their culture. The result of this statement reflect a predominantly positive social attitude towards language learning.

Statement Twenty one: "I wish I was born and lived in the English community". This statement is equally employed to probe students' social attitude towards English community. It is clear that (38%) of the selected sample wish if they were members of English population, on the other hand, (48.7%) do not subscribe to this. Unlike the previous statement, this one reflects that nearly half of the sample are not in favour of living in English native countries, i.e. they have negative attitude towards the English community.

Statement Twenty two: "English people are very tolerant and brilliant". Similar to the two preceding statements, this one is also used to investigate students' social attitudes towards English native speakers. Based on the above findings, it is obvious that (37.3%) believe that English native speakers are very tolerant and brilliant, while (40.7%) do not agree with this claim. Such kinds of belief and admiration represent one type of acculturation which influences language learning, i.e. towards language native speakers (social attitudes). It is clear that, the result of this statement reveals that this type of attitude is not much in evidence among the sample.

Statement Twenty Three: "I learn English to help me finish my study". The purpose of this statement is to uncover one of the reasons that stimulate students learn English language. Based on the results attained in this table, three quarters of the sample, (75%) learn English language as a tool or requirement to finish a B.A. degree, (20%) disagree with the statement. Learning English language as a means to attain certain goal is ostensibly the aim of instrumental motivation, so it can be presumed that, most of the target learners here, are energized by instrumental motivation.

Statement Twenty four: "I learn English to help me in my future career". While the above statement reveals the present purpose of studying a language, this one investigates another future aim for doing so. Table (Appendix A) reveals that, compared to a fraction (9%) of the attained responses, most of the students (87%) learn English language to be used for future occupational purposes. This type of interest in language learning for such pragmatic purpose, as in the preceding statement, reveals the prevalence of instrumental motivation among students.

Statement Twenty five: "I learn English to help me study in English speaking country". Again, like the preceding statements, this statement exposes a predictable goal achieved through studying English language. As shown in the table, (83%) of the subjects desire to study English language in order to complete their studies overseas (in English speaking countries). Only (12.7%) who learn this language for other purposes or may have no aspiration to learn abroad. Once more, this statement reflects another type of practical consideration for language learning (for postgraduate studies). Accordingly, the majority of the students are instrumentally motivated to learn English language for an ulterior motive.

Statement Twenty six: "I revise and learn English to pass the final exam". This statement replicates the idea of why some students revise English language only in the days of the exams (in statement nineteen). The following table summarizes the attained results. It is clear that about (51.3%) of the students review English language at the end of the term for the sake of passing the final exam, whereas (42.7%) do not agree with this proposition. English language is not learnt and acquired merely through studying and memorizing vocabulary lists and rules of grammar, but rather through continual practice of the four language skills. This result vindicates a shallow view towards English language learning, as well as students' instrumental motivation.
**Statement Twenty seven**: "I should study hard and improve my language to get my teacher's and classmates' appreciation". This statement aims at exploring another type of motivation which influences language learning, i.e. 'esteem needs' motivation (the desire for respect, importance, and appreciation). The following table explains the result. It is evident that (52%) of the learners believe that they should strive to work hard and improve English language abilities in order to secure teacher and classmates approval, while a mere (38.6%) disagree with this statement. Based on this result, more than half of students try to achieve and enhance their levels energized by the so called "esteem need"; the fourth-level need in Maslow's motivation needs hierarchy (a need or a desire for recognition, attention and appreciation from others). That is, they are "extrinsically" motivated to learn the language in order to receive some extrinsic rewards.

**Statement Twenty eight**: "I always voluntarily answer the questions asked by the teacher in the lecture". In a similar vein to the third statement, this statement exposes another type of classroom interaction, the results are as follows: Table above indicates that (59.4%) of the subjects do not always participate in responding to the teacher's questions, while (31.3%) do agree that they respond to these questions of their own accord. The result reveals that about two-third of the students are not involved in much of classroom interaction which implies that they are either apathetic or lack self-confidence to so this. This type of demotivation, in turn, influences language learning and subsequently results in low performance.

**Statement Twenty nine**: "I am not studying English very hard because I do not expect to develop my English language in the future". This statement also investigates another type of motivation which impinges on language learning (expectation). As shown in this table, only (34%) of the selected subjects do not take up the task of study seriously in order to improve their language levels. On the other hand, more than half of the subjects (55.4%) persist to study hard because they expect future language development. Students will be motivated to work hard and study to perform well only if they expect that lucrative work prospects will ensue. Based on the present figures, students are motivated to learn English language because they expect future development.

**Statement thirty**: "I feel confused when I read or speak in front of my teacher or classmates". The last statement of this questionnaire is intended to examine students’ attitudes towards classroom environment. The table reveals that about (58.7%) of students are confused when they read or speak in the classroom. Whereas, (37.3%) are confident enough as to experience no such feelings. "Safety needs" which creates relaxed classroom atmosphere, is a psychological trait that influences learning motivation. It is evident that more than half of the students feel consternation when attempting to participate in the classroom because they lack the sense of security, being one of the pivotal factors in attaining self-confidence and, consequently, consolidating language performance.

### 4.2 Test Analysis and Discussion

Regarding test marks, they were assigned as 5-10 points for sub-skills included into the main three test sections. The test was scored out of total 100 marks, 40 for each of the first and second sections (reading and grammar), and 20 for section three. The scoring procedure for questions in sections one and two is transparent and straightforward: the responses are regarded as either right or wrong. In section three (writing) on the other hand, the marks were assigned to the entire written text as a whole (holistic scoring).

To determine the actual level, the researchers used the exact mean which was obtained by the summation of the whole attained results divided by the total number of students. The pass mark is different in the three universities, depending on the system of each one. The actual calculated arithmetic mean, on the other hand, is based on the actual results of students in each university, so it was considered to be the de facto pass mark for this test. A pass mark here was used to signify the score regarded as ambivalent cases between those who perform well (pass the test), and those with low performance (do not pass). The following table describes the mean and variance of the marks in the three universities.

|             | N  | Mean  | Variance |
|-------------|----|-------|----------|
| Khartoum    | 50 | 52.92 | 226.647  |
| Gezira      | 50 | 47.96 | 217.386  |
| Kasala      | 50 | 45.84 | 217.402  |

Based on this table the mean in Khartoum university is (52.92), so the pass mark (53) represents the average. According to students' results in this university, (22) students (out of 50) scored above the average (one of them
gained the exact average mark), while the other (28) scored below the required level. Table 2 below represents the frequencies and percentages of the final result.

Table 2. The final result of Khartoum university

| Standard        | Frequency | Percent |
|-----------------|-----------|---------|
| Above average   | 22        | 44%     |
| Below average   | 28        | 56%     |
| Total           | 50        | 100%    |

It is obvious from this table that about 44% of the sample in Khartoum university obtained the average and above the average, while 56% of them are below the average.

In Gezira university, the pass mark is (48). According to the results (20) students scored above the pass mark, whereas the other (30) scored below the required level. The final result has been displayed in the following table.

Table 3. The final result of Gezira university

| Standard        | Frequency | Percent |
|-----------------|-----------|---------|
| Above average   | 20        | 40%     |
| Below average   | 30        | 60%     |
| Total           | 50        | 100%    |

Table 3 above, reveals that (40%) of the students in Gezira university got above the average, and (60%) of them are below the average.

In Kasala university, the attained mean is about (46). Based on the results, (21) students scored above the average and (2) of them secured the average. The rest (27) scored below the required level. Table 4 illustrates the percentages.

Table 4. The final result of Kasala university

| Standard       | Frequency | Percent |
|----------------|-----------|---------|
| above average  | 23        | 46%     |
| below average  | 27        | 54%     |
| Total          | 50        | 100%    |

This table shows that (46%) of the students in Kasala university attained the average and above the average, while (54%) are below the average.

Table 5. Statistic description of the marks for all selected samples

| N   | Mean | Variance |
|-----|------|----------|
| 150 | 48.90| 226.380  |

Much the same result has been attained when the selected sample is considered as a whole. As shown in table 5 above, the mean reached by applying the same above procedure was (48.90), so, the considered average for all results is 49. Table 6 below represents the frequencies and percentages of the final result.

Table 6. The final result of the three universities

| Standard     | Frequency | Percent |
|--------------|-----------|---------|
| above average| 67        | 44.6%   |
| below average| 83        | 55.4%   |
| Total        | 150       | 100%    |

This table shows that 44.6% (67 students) of the total sample attained the average or above the average, while 55.4% (83 students) are below the average.

The following table describes the correlation between results and attitudes.
Table 7. The Correlation of the results and attitudes

| Items                        | N  | Correlation | Sig. |
|------------------------------|----|-------------|------|
| results & attitudes          | 150| .988        | .000 |

According to this table, the results indicate the existence of a statistical significance between the two variables. This result indicates the presence of considerable positive correlation between students' attitudes and the results of the test.

Eventually, paired sample t-test was applied as a procedure to determine the statistical significance between students' results and their attitudes. To ensure that the significance level is ($\alpha = 0.05$), the table significance level in the 'paired samples test' is computed and found to exceed the assumption, indicating that the items are statistically significant.

Table 8. Paired Samples Test of the results and attitudes

| Paired Differences | Mean   | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | T     | Df   | Sig. (2-tailed) |
|--------------------|--------|----------------|-----------------|------------------------------------------|-------|------|----------------|
| Pair 1 results – attitudes | -2.26000E0 | 10.15153     | 1.43564         | -5.14503-62503                           | -1.574 | 149  | .122           |

Building on the above assumption, the table significant level (0.122) is more than the assumption. Hence, this result establishes the presence of statistical significance between the results and attitudes.

Concerning motivation, it was observed that medicine students are more energized by instrumental motivation (extrinsic motivation) than the other type (intrinsic motivation). According to the discussion above, English language was considered as a means to an end, i.e., for utilitarian purposes. It has been uncovered that students learn English in order to attain high marks in the final exam, to finish their studies and to be used for future-occupational purposes. Even though instrumental motivation is important in language learning, it was stated that the most successful learners are those who are intrinsically motivated. In more details, it was claimed that students with intrinsic motivation have stronger desire and exert more effort than extrinsically motivated students, and consequently, they are better in learning, and achieving a high level (Lei, 2010). Moreover, it has been proved that merely one type of motivation is inadequate to improve language learning and guarantee language success. In the present case, the absence of integrative impulses and the prevalence of instrumental motivation have apparently contributed to students' low performance.

5. Discussion

The findings of this study are predictable in some ways and idiosyncratic in others. For one thing, like their peers in both specialized and EAP English, the present sample overwhelmingly enunciate the view of the importance of English in every domain of contemporary life. In fact, this has become a platitude of attitudinal factors research, and in none of the extant literature have a significant proportion of students held the opposite view. This conviction is most accentuated when coupled with the specialty of English language and literature where, naturally enough, some students would love English and American values to the extent of identifying with them, and striving to master the language. It seems in many of the Arab and Sudanese studies (e.g. Al Busiary, 1991) above that the more integratively English majors are, the more proficient they will be. Yet, like many science-based students in the Arab world, the Sudanese medical sample held an ambivalent attitude towards the English-speaking community and its culture. The ideal vision seems to be fusing the boons of modern science and conservative Islamic thinking, a dilemma most easily resolved through resorting to instrumental motivation, in which the end of educational endeavor justifies the need to learn English. The current study also confirmed the widely- held view that positive attitudes towards the role of English strongly correlated with proficiency levels, though the factor of gender was not included in this study. But the most significant divergence from previous Arab studies with a similar predicament is that in the case of our sample the convictions have only led to a parochial type of instrumental motivation, almost wholly preoccupied with the formalities of passing examinations. In contrast, the majority of Arab learners suffering from the same duality (e.g. Saudi Arabia, Kuwait, Yemen, Oman and Jordan) have used this very need for English as a springboard for striving to master this global language. In other words, while much hope and aspiration pervade the Arab young scientists, there is a deep sense of pessimism and disillusionment among the Sudanese medical students. It is true that both group endeavor to learn English, the former with view to gaining all personal and disciplinary advantages English opens up in a global village, and the latter with the mere prospect of passing examinations. The
apathy to learning English goes to great lengths, and this raises grave pedagogical issues. One might inquire about surrounding factors as the instructors, the syllabus and the philosophy of teaching. One might wonder if the medical syllabus embraces contemporary notions such as genre analysis, discipline-specific EAP and ethnographic research (Hyland, 2006) or whether teachers still adhere to a common core monolithic view of academic discourse as a strain of dominant characteristics. Another legitimate question is the training the teachers have received and their status within the Department. It is common knowledge that EAP teachers are regarded as less proficient than their peers in the Departments of English (Braima, 2004). This relegation might be reflected in their motivations to teach and instill enthusiasm in their students. Moreover, the type of uncreative, unimaginative and unauthentic teaching stressed by students might be the corollary, coupled with a lack of training that deprives them of the fruits of modern ethnographically-inspired pedagogy which places the student at the heart of the learning process. Finally, the divorce in the questionnaire between students’ convictions about the importance of English and their wish to learn it will lead to a consideration of teaching technologies involving multi-modalities and its integration with the printed material. Once more, that entails rewarding and appreciating EAP teachers who will, in turn, inoculate their student so much so that students’ conviction about English language are translated as concrete efforts.

6. Conclusion

The present study has purported to analyze students’ attitudes and motivation towards EAP courses in the faculties of medicine in three different Sudanese universities, and the impact of these two variables on students’ performance. The study was undertaken with the goal of applying fine-grained categories of attitude and motivation to the new research field of medicine within the context of Arabicization. Based on the responses to students’ questionnaire and the corresponding language test, it was discerned that, medical students are aware of the importance of English language in general and of its immense potential to enhance professional prospects. The most striking conclusion of this research is the stark contrast between students’ initial enthusiasm for the English language and their sheer distaste for the type of instruction that they receive in it. This result clearly differs from the findings of most comparable studies where interest in English led students to exert much more effort. Since the sample comprises three different faculties and involve medical students deemed to be the best students in Sudan, it is fair to assume that this is a representative study of the psychological traits of Sudanese EAP communities well after Arabicization. Taking into account students’ narrow version of instrumental motivation, regarding English as a mere hurdle to be surmounted, educational authorities should take swift measures to evaluate the outcome of the duality in medium of instruction in Sudanese science and social science faculties so that students would graduate with sufficient command of English to aid them in their professional and disciplinary domains.

7. Suggestions for Future Research

The current study has analyzed features of motivation and attitude with regards to learning English as a university requirement and the relation thereof to language achievement. Future research can complement this study through conducting discourse-based interviews with teachers, and students’ questionnaires can be strengthened by comparisons with transcripts of lectures so as to gain a thicker understanding of the learning context. Equally, this type of study can be contrasted with the courses in other disciplines in pure sciences and social sciences. Moreover, a better understanding of the EAP context is never complete without rigorous analysis of the syllabus and its satisfaction of personal, professional and disciplinary requirements. Finally, Sudanese postgraduate science students writing in English might be investigated for the generic difficulties they face when writing research in English, and their attitudes and motivations can be compared to the present study.

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Appendix (A): Statistics of Students’ Questionnaire

| Statement                                                                 | Frequency | Strongly agree | Agree | Not sure | Disagree | Strongly disagree | Total |
|---------------------------------------------------------------------------|-----------|----------------|-------|----------|-----------|--------------------|-------|
| 1. I get many benefits from studying English requirement courses.         | Frequency | 18             | 42    | 13       | 60        | 17                 | 150   |
|                                                                            | Percentage| 12             | 28    | 8.7      | 40        | 11.3               | 100   |
| 2. I attend seriously all the lectures of English courses.               | Frequency | 27             | 48    | 15       | 50        | 10                 | 150   |
|                                                                            | Percentage| 18             | 32    | 10       | 33.3      | 6.7                | 100   |
| 3. I always ask my teacher when I do not understand something.          | Frequency | 8              | 25    | 16       | 56        | 36                 | 150   |
|                                                                            | Percentage| 5.3            | 16.7  | 10.7     | 43.3      | 24                 | 100   |
| 4. I revise what I learn regularly at home.                              | Frequency | 5              | 26    | 18       | 58        | 43                 | 150   |
|                                                                            | Percentage| 3.3            | 17.3  | 12       | 38.7      | 28.7               | 100   |
| 5. If English courses were optional, I would never study them.          | Frequency | 33             | 54    | 16       | 34        | 13                 | 150   |
|                                                                            | Percentage| 22             | 36    | 10.7     | 22.7      | 8.6                | 100   |
| 6. I think the materials in English courses are sufficient to meet our   | Frequency | 7              | 10    | 15       | 83        | 35                 | 150   |
| needs.                                                                   | Percentage| 4.7            | 6.7   | 10       | 55.3      | 23.3               | 100   |
| 7. The materials in the English course are very traditional and repeated. | Frequency | 41             | 83    | 7        | 10        | 9                  | 150   |
|                                                                            | Percentage| 27.3           | 55.3  | 4.7      | 6.7       | 6                  | 100   |
| 8. The materials I learn help me more in using language outside the lecture room. | Frequency | 2              | 24    | 16       | 73        | 35                 | 150   |
|                                                                            | Percentage| 1.3            | 16    | 10.7     | 48.7      | 23.3               | 100   |
| 9. The language I learn help me more in reading English books and        | Frequency | 7              | 23    | 19       | 78        | 23                 | 150   |
| magazines.                                                               | Percentage| 4.7            | 15.3  | 12.7     | 52        | 15.3               | 100   |
| 10. There is no direct relation between the content in English course and what is found in the references of medicine. | Frequency | 21             | 33    | 24       | 55        | 17                 | 150   |
|                                                                            | Percentage| 14             | 22    | 16       | 36.7      | 11.3               | 100   |
| 11. The courses need more additions and modification to satisfy our needs.| Frequency | 68             | 68    | 2        | 9         | 3                  | 150   |
|                                                                            | Percentage| 45.3           | 45.3  | 1.3      | 6         | 2                  | 100   |
| 12. The language and terminology in the running courses will help me later in my work. | Frequency | 35             | 49    | 21       | 34        | 11                 | 150   |
|                                                                            | Percentage| 23.3           | 32.7  | 14       | 22.7      | 7.3                | 100   |
| 13. The timetable is not suitable.                                       | Frequency | 65             | 73    | 3        | 8         | 1                  | 150   |
|                                                                            | Percentage| 43.3           | 48.7  | 2        | 5.3       | .7                 | 100   |
| 14. The teacher uses different types of teaching-aids and up-to-date multi-media. | Frequency | 1              | 18    | 3        | 77        | 51                 | 150   |
|                                                                            | Percentage| .7             | 12    | 2        | 51.3      | 34                 | 100   |
| 15. The teacher spends the lecture’ time just talking and writing on the board. | Frequency | 22             | 67    | 16       | 32        | 13                 | 150   |
|                                                                            | Percentage| 14.7           | 44.7  | 10.7     | 21.3      | 8.7                | 100   |
|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 16. We regularly practise the four skills with our teacher in the classroom. | Frequency | 4 | 17 | 16 | 85 | 28 | 150 |
|   | Percentage | 2.7 | 11.3 | 10.7 | 56.7 | 18.7 | 100 |
| 17. The method used by the teacher is good and attractive. | Frequency | 10 | 56 | 14 | 51 | 19 | 150 |
|   | Percentage | 6.7 | 37.3 | 9.3 | 34 | 12.7 | 100 |
| 18. I learn English language because it is a required course. | Frequency | 28 | 62 | 4 | 46 | 10 | 150 |
|   | Percentage | 18.7 | 41.3 | 2.7 | 30.7 | 6.7 | 100 |
| 19. I read and revise English courses merely to get high marks. | Frequency | 28 | 70 | 6 | 31 | 15 | 150 |
|   | Percentage | 18.7 | 46.7 | 4 | 20.7 | 10 | 100 |
| 20. English language is a source of social prestige and respect. | Frequency | 31 | 52 | 15 | 41 | 11 | 150 |
|   | Percentage | 20.7 | 34.7 | 10 | 27.3 | 7.3 | 100 |
| 21. I wish I was born and has lived in English community. | Frequency | 27 | 40 | 10 | 49 | 24 | 150 |
|   | Percentage | 18 | 26.7 | 6.7 | 32.7 | 16 | 100 |
| 22. English people are very tolerant and brilliant. | Frequency | 18 | 38 | 33 | 51 | 10 | 150 |
|   | Percentage | 12 | 25.3 | 22 | 34 | 6.7 | 100 |
| 23. I learn English to help me finish my study. | Frequency | 42 | 71 | 7 | 25 | 5 | 150 |
|   | Percentage | 28 | 47.3 | 4.7 | 16.7 | 3.3 | 100 |
| 24. I learn English to help me in my future career. | Frequency | 54 | 77 | 5 | 12 | 2 | 150 |
|   | Percentage | 36 | 51.3 | 3.3 | 8 | 1.3 | 100 |
| 25. I learn English to help me study in English speaking country. | Frequency | 55 | 70 | 6 | 19 | 0 | 150 |
|   | Percentage | 36.7 | 46.7 | 4 | 12.7 | 0 | 100 |
| 26. I revise and learn English just to pass the final exam. | Frequency | 23 | 54 | 9 | 46 | 18 | 150 |
|   | Percentage | 12.3 | 36 | 6 | 30.7 | 12 | 100 |
| 27. I should study hard and improve my language to get my teacher's and classmates' appreciation. | Frequency | 14 | 64 | 14 | 44 | 14 | 150 |
|   | Percentage | 9.3 | 42.7 | 9.3 | 29.3 | 9.3 | 100 |
| 28. I always voluntarily answer the questions asked by the teacher in the lecture. | Frequency | 11 | 36 | 14 | 67 | 22 | 150 |
|   | Percentage | 7.3 | 24 | 9.3 | 44.7 | 1.7 | 100 |
| 29. I am not studying English very hard because I do not expect to develop my English language in the future. | Frequency | 7 | 44 | 16 | 55 | 28 | 150 |
|   | Percentage | 4.7 | 29.3 | 10.7 | 36.7 | 18.7 | 100 |
| 30. I feel confused when I read or speak in front of my teacher or classmates. | Frequency | 22 | 66 | 6 | 45 | 11 | 150 |
|   | Percentage | 14.7 | 44 | 4 | 30 | 7.3 | 100 |