Motivation And Attitudes Towards Learning English: A Study Of Petroleum Engineering Undergraduates At Hadhramout University Of Sciences And Technology

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Abstract

This paper outlines the results of a survey which was carried out, to identify Petroleum Engineering students’ motivation and attitudes towards learning the English language. The study investigated students’ motivation in terms of three motivational constructs: instrumental motivation, integrative motivation and personal motivation based on Gardner’s (1985) and Cooper and Fishman’s (1977) works. Learners’ attitudes, on the other hand, regarding 1) the use of English in the Yemeni social context, 2) the use of English in the Yemeni educational context, 3) the English language and 4) the culture of the English speaking world were identified. The study sample consisted of 81 petroleum engineering students at Hadhramout University of Sciences and Technology (HUST). A questionnaire and interviews were used for data collection. For the students’ motivation, the findings showed the subjects’ greater support of instrumental reasons for learning the English language including utilitarian and academic reasons. Personal reasons were also regarded as important motives by the students. However, regarding the integrative reasons, the results provided evidence that learning English as a part of the culture of its people had the least impact in students’ English language motivation. On the other hand, data for the students’ attitudes revealed that most of students had positive attitudes towards the social value and educational status of English. In addition, the findings showed the students’ positive orientation toward the English language. Interestingly enough, the results indicated that a high number of the students showed their interest in the culture of the English speaking world as represented by English-language films. Finally, some pedagogical implications that would help tap the students’ motivation and attitudes were presented.

Keywords: motivation, attitudes, English for Specific Purposes (ESP), EFL context, Petroleum Engineering students.

Introduction

Previous research in the field of engineering showed that English language is of paramount importance in the academic and professional lives of the engineering students
(Basturkman, 1998; Pendergrass et al., 2001; Pritchard & Nasr, 2004; Joseba, 2005; Sidek et al., 2006; Hui, 2007; Venkatraman & Prema, 2007). For example, Pendergrass et al. (2001) point out that English is an essential tool in the engineering education and, therefore, integrating English into engineering, science and math courses is an effective way to improve the performance of engineering students in oral and written communication (p.1).

However, at Hadhramout University for Science and Technology (HUST) its petroleum engineering students have been described as low-competent in the English language (Al-Tamimi & Munir Shuib, 2008). Al-Tamimi and Munir Shuib's views were based on preliminary interviews with some English language teachers at HUST and some petroleum students and graduates, from the Faculty of Petroleum and Engineering (FPE) at HUST, in which they opined that the petroleum students faced a lot of difficulties in using the language. As a result of their poor performance in English, most of the petroleum graduates have been rejected when applying to work at the oil companies. In this regard, the former Yemeni Minister of Oil and Minerals Mr. Khaled Bahah stated that applicants, who graduated from the FPE, always found it difficult to join the oil companies because of their language problems and therefore advised these graduates to improve their English skills to increase their opportunities in getting the job (http://www.mom.gov.ye/ar/news_53.htm).

There are many factors that might cause the students’ low proficiency in English. One might be attributed to petroleum engineering students’ motivation towards the English language. This is because learners’ motivation has been widely accepted as a key factor which influences the rate and success of second/foreign language learning (McDonough, 1983; Ellis, 1994). McDonough (1983, p.142) states that “motivation of the students is one of the most important factors influencing their success or failure in learning the language”. Another factor is learners’ attitudes. This is because an ESL/EFL learner's motivation in language learning is affected by his/her attitudes towards learning the language. The relation between motivation and attitudes has been considered a prime concern in language learning research. Gardner and Lambert (1972, p.3) state that “his [the learner] motivation to learn is thought to be determined by his attitudes towards the other group in particular and by his orientation towards the learning task itself”. In addition, Lifrieri (2005, p.14) assert that “attitudes are necessary but insufficient indirect conditions for linguistic attainment. Only when paired up with motivation proper do attitudinal tendencies relate to the levels of student engagement in language learning, and to attainment”. All in all, a better understanding of students' motivation and attitudes may assist ESL/EFL curriculum and instruction designers to devise language teaching programs that generate the attitudes and motivation most conducive to the production of more successful ESL/EFL learners (Gardner & Lambert, 1972; Midraj, 1998; 2003). Additionally, it can help material writers create and teachers select activities and tasks that tap students' motivation and attitudes (Midraj et al., 2008).

Given the importance of identifying learners’ motivation and attitudes towards learning the English language, this paper reports a study which had been conducted to investigate petroleum engineering students’ motivation and attitudes towards the English language.
Besides the significant role of learners’ motivation and attitudes in the learning process, the lack in the literature regarding studies on engineering students’ motivation and attitudes in the Arab World has been another motive to conduct the present study.

More importantly, in the Yemeni EFL context, the only related study which has been carried out among Yemeni undergraduates was that of Al-Quyadi (2002) who looked at Sana’a University English majors’ motivation and attitudes towards learning English. However, to the best of the researchers’ knowledge, no study has been conducted to investigate language learning motivation and attitudes of Yemeni English for Specific Purposes (ESP) learners in general and HUST ESP learners in particular. As these types of learners might have their specific motives and attitudes towards learning English, the present investigation would contribute to understand such issues with regard to petroleum engineering students at HUST, Yemen. This could also serve as a reference for instructors and syllabus designers at HUST to improve the situation of English language teaching with respect to students’ motivation and attitudes.

Objectives of the Study

This study aims at investigating petroleum engineering students’ motivation and attitudes towards learning the English language. The objectives are as follows:

- To determine which of the three types of motivation (instrumental, integrative and personal) could be the primary source of petroleum engineering students’ motivation towards learning the English language.
- To determine the type of attitude that petroleum engineering students have towards learning the English language.

Literature Review

This section provides a review of the literature deemed relevant to the research objectives. This includes a brief overview of the concepts of motivation and attitudes and a review of the related studies.

Motivation

Motivation is very hard to define. As Gardner (2006, p.242) states “motivation is a very complex phenomenon with many facets...Thus, it is not possible to give a simple definition”. This is because the term motivation has been viewed differently by different schools of thought. From the behaviouristic perspective, motivation is "quite simply the anticipation of reward" (Brown, 2000, p.160). However, the cognitivists view the term motivation as being more related to the learner's decisions as Keller (1983, p.389), quoted by Brown (ibid, p.160), stated, "the choices people make as to what experiences or goals they will approach or avoid, and the degree of effort they exert in that respect". However, in the constructivists' definition of motivation, they place "further emphasis on social contexts as well as the individual's decisions" (ibid). Despite the differences, in all the definitions of motivation given by the three schools of thought the concept of "needs" is
emphasized, that is, "the fulfilment of needs is rewarding, requires choices, and in many
cases must be interpreted in a social context" (ibid, p.161).

The importance of motivation in enhancing second/foreign language learning is
undeniable. Lifrieri (2005, p. 4) points out that “when asked about the factors which
influence individual levels of success in any activity – such as language learning –, most
people would certainly mention motivation among them”. Brown (2000, p.160) states
that "it is easy in second language learning to claim that a learner will be successful with
the proper motivation". With similar views, Gardner (2006, p. 241) posits that “students
with higher levels of motivation will do better than students with lower levels”. He
further adds that “if one is motivated, he/she has reasons (motives) for engaging in the
relevant activities, expends effort, persists in the activities, attends to the tasks, shows
desire to achieve the goal, enjoys the activities, etc” (Gardner, 2006, p. 243).

Brown (2000) asserts that studies of motivation of second/foreign language learners often
refer to a distinction between two types of motivation namely, instrumental versus
"learning a language because of someone or less clearly perceived utility it might have
for the learner". More specifically, a learner is instrumentally motivated when he/she
wants to learn a language "to pass an examination, to use it in one's job, to use it in
holiday in the country, as a change from watching television, because the educational
system requires it" (Wilkins, 1972, p.184).

On the other hand, integrative motivation was defined as "learning a language because
the learner wishes to identify himself with or become integrated into the society” of the
target language (Gardner, 1983, p.203). Therefore, a learner is integratively motivated
when he/she learns a language because he/she wants to "know more of the culture and
values of the foreign language group… to make contact with the speakers of the
languages… to live in the country concerned" (Wilkins, 1972, p.184).

Besides Gardner’s integrative and instrumental constructs, Cooper and Fishman (1977)
mentioned a third type of motivation which they termed "developmental". Developmental
or personal motivation, according to them, refers to motivation relating to “personal
development or personal satisfaction” (Cooper & Fishman, 1977, p.243). This includes
such activities as watching movies and reading books in English (ibid).

The researchers concur with Spolsky (1989, p.160) in that “a language may be learned
for any one or any collection of practical reasons”. As such, identifying the petroleum
engineering students’ motivation will be related to the reasons for which they learn the
English language. In other words, instrumental, integrative and personal reasons will be
considered as far as the students’ motivation is concerned. This view is also supported by
Crookes and Schmidt (1991) who consider motivation in learning a second/foreign
language as “the learner’s orientation with regard to the goal of learning a second
language” (p. 10).
Attitudes

Likert (1932, p.9), cited in Gardner (1980, p.267), defines the term attitude as "an inference which is made on the basis of a complex of beliefs about the attitude object". Gardner (1980, p.267) elaborates on Likert's definition by defining attitude as "the sum total of a man's instincts and feelings, prejudice or bias, preconceived notions, fears, threats, and convictions about any specified topic". Ajza (1988, p.4) considers attitudes as "a disposition to respond favourably or unfavourably to an object, person, institution, or event". Baker (1992, p.10) defines attitudes as "a hypothetical construct used to explain the direction and persistence of human behaviour".

Gardner (1985) considers attitudes as components of motivation in language learning. According to him, “motivation ... refers to the combination of effort plus desire to achieve the goal of learning the language plus favourable attitudes toward learning the language” (p. 10). However, Wenden (1991) proposed a broader definition of the concept “attitudes”. He states that the term attitudes includes three components namely, cognitive, affective and behavioural. A cognitive component is made up of the beliefs and ideas or opinions about the object of the attitude. The affective one refers to the feeling and emotions that one has towards an object, 'likes' or 'dislikes', 'with' or 'against'. Finally, the behavioural component refers to one's consisting actions or behavioural intentions towards the object (ibid).

From a different angle, McGuire (1969, p.157), cited in Oscamp, (1977, p.10) suggests that it is possible that the three components are so closely interrelated, “that theorists who insist on distinguishing them should bear the burden of providing that the distinction is worthwhile”. This made Van Els et al. (1984, p.116) to suggest that “it does not really matter whether all or only one of the three components are measured; the relationship between the components is so close that sufficient information on an attitude can be obtained by measuring only one component, no matter which”.

Learning a language is closely related to the attitudes towards the languages (Starks & Paltridge, 1996). Karahan (2007, p.84) avers that “positive language attitudes let learner have positive orientation towards learning English”. As such, attitudes may play a very crucial role in language learning as they would appear to influence students’ success or failure in their learning.

Related Studies

There is a plethora of research that has been carried out internationally to investigate learners’ motivation and attitudes towards the English language. In Malaysia, for example, Vijchulata and Lee (1985) reported on a study that investigated the students’ motivation for learning English in Universiti Putra Malaysia (UPM). Based on Gardner and Lambert’s research (1972), the researchers developed a questionnaire to elicit the data required. The questionnaire was administered on approximately a thousand students from all the different faculties in UPM. The findings revealed that UPM students are both integratively and instrumentally oriented towards learning the English language.
Another study by Sarjit (1993) attempted to explore the language needs of consultants at a company. The name of the organisation was not mentioned as the consultants did not allow the researcher to expose their identities. Learners’ motivation was of concern in the study. The research sample consisted of 26 consultants, 4 directors and one instructor. In her study, Sarjit (1993) employed different techniques to gather information, such as questionnaire, interviews and field observation. For the subjects’ motivation, the study found that instrumental motivation was the main reason for learning the language followed by personal motivation.

In Japan, learners’ motivation and attitudes towards the English language were also of concern for many researchers. One of the most relevant studies was that of Benson (1991) who surveyed over 300 freshmen to assess their motivation towards learning English. The results demonstrated the importance of integrative and personal goals as factors in motivation among Japanese college students as he stated, “integrative and personal reasons for learning English were preferred over instrumental ones” (Benson, 1991, p. 34).

In Papua New Guinea (PNG), a related study was undertaken by Buschenhofen (1998). He sought to assess the attitudes towards English among year 12 and final-year university students. To collect the data, he administered a questionnaire on approximately 50% of year 12 and first-year university students in PNG. Both groups were contrasted in terms of their tolerance towards the use of English in a variety of contexts. The results indicated (1) a generally positive attitude by both groups towards English and (2) some significant attitudinal differences in relation to specific English language contexts. Buschenhofen attributed such differences to the changing social, educational, and linguistic conditions which characterize the transition from year 12 to university education.

Arani (2004) investigated in Iran the language learning needs of medical students at Kashan University of Medical Sciences. One of the primary objectives of the study was to identify the students’ attitudes towards learning English as a school subject i.e. prior entering the university. The research sample consisted of 45 medical students who enrolled in the first and second year of study. To collect the data, different types of questionnaires were administered to the sample at the beginning, in the middle and at the end of the English for Medical Purposes (EMP) courses. The results showed that most of the subjects had positive attitudes towards both learning English and the English language teacher.

A more recent study has been carried out by Karahan (2007) in the Turkish EFL context. The motive of his study arose from the complaints raised by learners, teachers, administrators, and parents about why most of Turkish EFL students cannot attain the desired level of proficiency in English. Therefore, he conducted a study to find out the relation between language attitudes and language learning which is a missing point of discussions on the problems of teaching English in Turkey. More specifically, Karahan tried to identify the interlaced relationship among language attitudes, the starting age of language learning, and the place where the individual started to learn language within Turkey EFL context. The only method of inquiry used was a questionnaire adapted from
previous studies on language attitudes. The sample included 190 (94 females and 96 males) eighth grade students of a private primary school in Adana, Turkey, where English was intensively taught. The findings indicated that although the students were exposed to English in a school environment more frequently than other students at public schools, they had only mildly positive attitudes; especially female students had higher rates. In addition, the subjects recognized the importance of the English language but interestingly did not reveal high level orientation towards learning the language. On the other hand, the results revealed that the subjects had mildly positive attitudes towards the English based culture but they were not tolerant to Turkish people speaking English among themselves.

With regard to Arab EFL learners, some studies have been undertaken to investigate learners’ motivation and attitudes towards the English language. For instance, Qashoa (2006) conducted a study among secondary school students in Dubai. The study aimed at 1) examining the students’ instrumental and integrative motivation for learning English, and 2) recognizing the factors affecting learners’ motivation. Two research tools were used: questionnaire and interviews. The sample, for the questionnaire, consisted of 100 students. For the interviews, on the other hand, the sample included 20 students, 10 Arab English teachers and 3 supervisors. The results revealed that students have a higher degree of instrumentality than integrativeness. In addition, the findings indicated that difficulties with the subject (English) aspects such as vocabulary, structures and spelling were found to be the most demotivating factors for the students.

In the Yemeni Arabic EFL context, Al-Quyadi (2002) carried out a comprehensive study to investigate the psycho-sociological variables in the learning of English in the faculties of Sana’a in Yemen. One of the main objectives of his study was to study the nature of the psychological variables of learning English by Yemeni EFL learners in terms of attitudes and motivation as measured by English majors at the Department of English, Faculties of Education at Sana’a University. The only research tool used was a questionnaire. The study sample consisted of 518 students representing seven Faculties of Education. Generally, the results showed that the students had a high level of both instrumental and integrative motivation toward the English language. With regard to their attitudes, the findings indicated that the students had positive attitudes towards the English language and the use of English in the Yemeni social and educational contexts.

To sum up, the following may be said about the past studies discussed in this section:

- All the above-mentioned studies reconfirmed the importance of identifying learners’ motivation and attitudes towards the English language.
- Some studies have been carried out to investigate second/foreign language learners’ motivation. These studies help the researchers to understand the how to identify learners’ motivation. As a result, to assess petroleum engineering students’ motivation, some questions were adapted from Benson (1991), Sarjit Kaur (1993) and Qashoa (2006).
- Other studies focused on learners’ attitudes (Buschenhofen, 1998; Al-Quyadi, 2000; Karahan, 2007). Besides adapting questions to investigate the students’ attitudes, these studies help the researchers to build their idea on how to identify
the petroleum engineering students’ attitudes towards the English language. That is, the term attitudes in the present study includes four main categories: attitudes toward the use of English in the Yemeni educational context, attitudes toward the use of English in the Yemeni social context, attitudes toward the English language and attitudes toward the culture of the English Speaking World.

- The issues of learners’ motivation and attitudes have not been sufficiently discussed with regard to Arab engineering students. In other words, no study has been conducted to explore the types of motivation and attitudes that engineering students in the Arab World might have toward learning the English language. Therefore, this study would help understand these important issues with regard to Yemeni petroleum engineering students in the Arabic context.

Given the situation that highlighted the gap in the literature with regard to engineering students’ motivation and attitudes in the Arab World, the next section presents how the current study was carried out.

Methodology

This study was conducted to identify petroleum engineering students’ motivational and attitudinal orientations in learning the English language. To achieve this objective, two research tools were used namely, questionnaire and interviews. This type of design, that uses different research methods to investigate the same issue, is called a triangulation mixed method design (Creswell, 2002). The need for triangulation arises from the ethical need to confirm the validity and reliability of the process (Tellis, 1997). In addition, using multiple methods in a research design would also help to “give a fuller picture and address many different aspects of phenomena” (Silverman, 2000, p.50).

Participants

The target students’ population in this study was all the students who studied in the academic year 2006-2007 in the Department of Petroleum Engineering (DPE) at HUST, Yemen. The total number of the students was 191 males. There were no female students in the department.

The system in the DPE provides five years of instruction that qualifies the students to graduate with a BA degree in petroleum engineering. English language is the medium of instruction in the department. In addition, one English language course is taught for all the petroleum engineering students over two semesters in their first year.

A non-probability judgment sampling technique was employed by the researcher to select a representative sampling of the subjects in this study. Choosing the subjects using the judgment (purposive) sampling is based on the researcher's own judgment (Milroy, 1987). Given this, out of the 191 students in the DPE, only 81 third, fourth and fifth year petroleum engineering students, aged from 21 to 26 years old, were selected as a sample to fill in the questionnaire. On the other hand, only 10 of these students were involved in
the interview. 3 of them were in the third year, 4 in the fourth level and 3 were final year students in the academic year 2006-2007.

Instruments
The primary method of inquiry used in this study was a questionnaire. It consisted of three sections: A, B and C. In Section A, 3 items were used to collect information regarding the students’ background. Section B consisted of two parts which included questions to identify students’ motivation to learn the English language. The researchers adapted these questions from Benson (1991), Sarjit (1993) and Qashoa (2006) based on two scales of Gardner’s (1985) Attitude/Motivation Test Battery (AMTB) (the instrumental and integrative orientation scales) and Cooper and Fishman’s (1977) personal motivational construct. These reasons represented the three motivational constructs namely, instrumental motivation (items 1, 2, 3, and 4), integrative motivation (item 7) and personal motivation (items 5 and 6). It might be worth indicating that Gardner’s instrumental and integrative types of motivation were adopted because such a classification offers “an impetus to the study of language attitudes and motivation that had previously been lacking” (Benson, 1991, p.35). For the personal construct of motivation, it was included because it has been incorporated by some researchers such as Benson (1991), Sarjit (1993) and Shimizu (2000) when they investigated ESL/EFL learners’ motivation towards the English language.

In the second part of Section B of the questionnaire, on the other hand, the students were asked to answer a question on whether or not they are interested in attending more English language training courses to improve their proficiency in the English language. Answering such a question is of great importance to know about their desire for learning the language which is considered one of the main components of language learning motivation (Gardner, 2006).

Section C of the questionnaire was developed to elicit information regarding the students’ attitudes towards the English language. In this section, the students were given 8 statements (items) , adapted from Buschenhofen (1998), Al-Quyadi (2000) and Karahan (2007), for which they were requested to specify their responses by choosing any of the three alternatives provided, namely, agree, disagree and don’t know. The items were divided into four main categories: attitudes towards the use of English in the Yemeni educational context (items 3, 4, 5 and 6), attitudes towards the use of English in the Yemeni social context (items 1 and 2), attitudes towards the English language (item 7) and attitudes towards the culture of the English Speaking World (item 8).

It is worthwhile mentioning that the researchers translated the questionnaire into Arabic and then it was submitted to the Language Centre at HUST to check the translation. To ensure its validity, the questionnaire was piloted prior to carrying out the main study. On the basis of the outcome from the pilot study, the questionnaire was amended and the final draft was prepared for the main study.

Besides the questionnaire, interviews were used to obtain data to supplement and cross-validate the students’ responses to the questionnaire. The students were asked questions
related to their motivation and attitudes towards the English language. The interviewees were asked about 1) their reasons for learning English, 2) their interest to attend more training courses in English, and 3) their attitudes towards the English language and towards the culture of the English speaking world.

Data collection procedures
Given the description of the questionnaire and interviews, this sub-section presents the procedures used in the administration process.

In May, 2007, the researchers started carrying out the main study at the DPE in the FPE at HUST. Before administering the questionnaire, permission was sought from the FPE and the time was arranged with two lecturers at the DPE. Prior to distributing the questionnaire, the students were informed of the objectives and significance of the research. They were also requested to state their true and honest responses. In addition, the subjects were informed to ask for any clarifications they might have. Then, the questionnaire was distributed. Once they finished answering the questionnaire, they were requested to check their responses for incompleteness or missing answers.

Before conducting the interviews, the subjects were briefed on the aims and procedures of the interview sessions. To reduce their fear of exposing their honest views and to ensure better and valid results, the interviewees were informed that their answers would be treated with complete confidentiality. Moreover, ethical issues related to the culture and nature of the interviewees and the policy of the environment were taken into consideration when conducting the interviews. To record the interviewees, an MP4 and a notebook were used.

Data Analysis Procedures
The data collected in the present study was of two types i.e. quantitative and qualitative. The quantitative data of the questionnaires were analysed in terms of means, using the Statistical Package for Social Sciences (SPSS) and percentages. For analysing the qualitative part of the data, on the other hand, a content analysis method was used. In the analysis process, the interviewees’ responses for each question were firstly translated into English and then transcribed. After that, the responses were analysed in terms of themes related to the study objectives.

Limitations of the Study
There were a number of limitations to the present study which should be highlighted so as to avoid any overgeneralizations and misinterpretations of the results. First, due to financial and time concerns, the present study was confined to 81 petroleum engineering students in the academic year 2006-2007 at the FPE at HUST. Although the minimum sample size recommended by many researchers (Cohen et al., 2006) is thirty subjects, the findings might be a reflective of the motivation and attitudes of those participated in this
study. Second, all the participated subjects (n=81) were males as there were no female students in the department. Therefore, the generalisation from the findings should be made with caution. Finally, the pedagogical implications of this study are limited to those which can be based on the participants’ responses.

Results

This section is divided into two main sub-sections: the students’ motivation to learn English and their attitudes toward the English language. In presenting the results in each sub-section, data obtained from both the questionnaire and interviews were used.

Motivation to learn English

This sub-section presents the questionnaire and interview findings related to the students’ motivation to learn the English language.

Questionnaire results

To identify the students’ motivation towards learning the English language, they were asked to first, rank a list of six reasons in terms of importance in enhancing their learning of the English language and second, they were requested to answer a question on whether or not they are interested in attending more English language training courses to improve their English proficiency. Table 1 depicts mean values representing the subjects’ responses to the former question. The means are simply arithmetic average of the responses with 1 point assigned for “not important”, 2 for “of little importance”, 3 for “of some importance”, 4 for “important” and 5 for “very important”. On the other hand, Table 2 shows percentages representing the subjects’ responses to the latter question.

Table 1: The students’ results on their motivation for learning English

<table>
<thead>
<tr>
<th>Motivational Constructs</th>
<th>Reasons for Learning English</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>Overall mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumental motivation</td>
<td>1) Because it will enable me to carry my tasks more efficiently</td>
<td>81</td>
<td>4.7037</td>
<td>.53489</td>
<td>4.5000</td>
</tr>
<tr>
<td></td>
<td>2) Because it will enable me to get a job easily</td>
<td>81</td>
<td>4.7778</td>
<td>.47434</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Because I hope to further my education</td>
<td>81</td>
<td>4.2346</td>
<td>.93904</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4) Because it is a university requirement</td>
<td>81</td>
<td>4.2840</td>
<td>1.18569</td>
<td></td>
</tr>
<tr>
<td>Personal motivation</td>
<td>5) For a personal development</td>
<td>81</td>
<td>4.4938</td>
<td>.82346</td>
<td>4.1666</td>
</tr>
<tr>
<td></td>
<td>6) Because it will enhance my status among my friends</td>
<td>81</td>
<td>3.8395</td>
<td>1.30821</td>
<td></td>
</tr>
<tr>
<td>Integrative motivation</td>
<td>7) To integrate with the western culture</td>
<td>81</td>
<td>2.5802</td>
<td>1.37717</td>
<td>2.5802</td>
</tr>
<tr>
<td></td>
<td>8) Others (please specify)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
From the three motivational constructs namely, instrumental motivation, integrative motivation and personal motivation that have been the focus of the present study, instrumental motivation (items 1, 2, 3, and 4) received the highest mean scores, of all the subjects' results, (overall mean=4.5000) as shown in Table 1. For example, the students highly favoured learning English for the purpose of getting a job as this reason had received the highest mean score i.e. 4.7778. Learning English to enable them to carry their tasks more efficiently was followed next in order (mean=4.7037). The remaining instrumental motives i.e. as it is a university requirement and to further their education were also considered as important reasons to the students with mean scores 4.2840 and 4.2346 respectively.

Next to the instrumental motives, personal reasons (items 5 and 6) come as the second source of motivation of the students with overall mean 4.1666. The subjects admitted that learning the English language for a personal development (mean=4.4938) and to enhance their status among friends (mean=3.8395) are important motives to learn the English language.

For the integrative type of motivation, the results in Table 1 indicate that it had the least impact on students’ English language learning. That is, the least number of the subjects (mean=2.5802) had the view that they would like to learn English “to integrate with the western culture”.

Given the subjects’ reasons to learn the English language, these subjects were further asked to specify their own opinions to the idea of attending more English language training courses that would help improve their proficiency. The results in Table 2 below indicate that 97.5% of them responded positively.

<table>
<thead>
<tr>
<th>Questionnaire item</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would like to attend more English language training courses which will help you to</td>
<td>79</td>
<td>2</td>
<td>81</td>
</tr>
<tr>
<td>improve your proficiency in the language?</td>
<td>97.5</td>
<td>2.4</td>
<td>100</td>
</tr>
</tbody>
</table>

**Interview results**

Consistent with the questionnaire results, the majority of the interviewees agreed that their motivation arises from "more functional or external needs, such as the need to pass examinations, or for possibly, career opportunities" (Skehan, 1989, p.50). In other words, instrumental reasons were considered the primary source of the students’ motivation towards learning the English language. The following direct quotes, from the interviewees’ responses, illustrate these reasons:
Because the English language is an essential requirement at the workplace (a fifth year student).
To get a job easily because if you are not good enough in English it will be a reasonable cause to reject your application to any oil company (a third year student).

They are many reasons such as: you can communicate well with foreigners in the oil company, understand the western cunning, and to meet the academic requirements (a fifth year student).

Because it is the language of sciences and technologies (a fifth year student).

Want or not, the real life force you to study English (a fourth year student).

Because it is a society’s and job’s requirement… and it would help me talking with others in the workplace (a fourth year student).

English is the first international language in the world today. No one can deny the importance of English and its pervasive use in international affairs and as the language of sciences and technologies. Therefore, learning the English language can guarantee the availability of opportunities to employment, travelling, higher education, and even better life (a fifth year student).

As English language is very important in our engineering education and at the workplace, therefore, we should learn it so as to be successful learners and workers (a third year student).

The second motivational construct namely, personal or developmental motivation, which refers to motivation relating to personal development or personal satisfaction, comes next in the subjects' views. This includes the students' interests in doing some activities such as watching movies and reading books in English (Cooper & Fishman, 1977). Such reasons for learning a language were clearly articulated by some of the informants. As a fifth year student said:

......I am very interested in reading English books, even those not related to my field of study....and I feel happy when my friends praised me as talking like native speakers. This is why I should learn English.

On the other hand, learning English to be a part of the culture of its people was regarded by all the interviewees as having the least impact on their English language motivation as one of the subjects clearly said,

I don't like to be a part of the West and their culture...no... no... it is not a reason [to learn English] at all (a fourth year student).
Given the informants' results regarding their motivation towards the English language, the following sub-section deals with their respective results regarding their attitudes towards the English language.

**Attitudes toward the English Language**

This sub-section presents the questionnaire and interview findings related to the students’ attitudes toward the English language.

**Questionnaire results**

It might be worth indicating that the analysis of the data was based on the students' responses to eight statements, for which they were required to tick any of the three alternatives, namely agree, disagree and don't know. Percentages were given to enhance the data analysis as can be shown in Table 3 below.

<table>
<thead>
<tr>
<th>Questionnaire item</th>
<th>Agree</th>
<th>Disagree</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total (n=81)</td>
<td>%</td>
<td>Total (n=81)</td>
</tr>
<tr>
<td>1) The development of our country is possible mainly by educated people who know English well.</td>
<td>64</td>
<td>79</td>
<td>12</td>
</tr>
<tr>
<td>2) The use of English in government and business offices helps in getting things done easily.</td>
<td>29</td>
<td>35.8</td>
<td>45</td>
</tr>
<tr>
<td>3) English should not be a compulsory subject in secondary schools in Yemen.</td>
<td>10</td>
<td>12.3</td>
<td>71</td>
</tr>
<tr>
<td>4) English should be the medium of instruction in the secondary schools in Yemen.</td>
<td>66</td>
<td>81.4</td>
<td>12</td>
</tr>
<tr>
<td>5) At least some subjects like Physics and Chemistry should be taught in English at the secondary level in Yemen.</td>
<td>67</td>
<td>82.7</td>
<td>12</td>
</tr>
<tr>
<td>6) The teaching of English should start as early as the first grade in the Yemeni schools.</td>
<td>50</td>
<td>61.7</td>
<td>27</td>
</tr>
<tr>
<td>7) English films are more enjoyable than films in any other language.</td>
<td>45</td>
<td>55.5</td>
<td>23</td>
</tr>
<tr>
<td>8) When I hear someone speaks English well, I wish I could speak like him.</td>
<td>77</td>
<td>95</td>
<td>3</td>
</tr>
</tbody>
</table>
The findings in Table 3 show that the majority of the subjects (95%) had great desires towards speaking English well like fluent speakers. In addition, the subjects' agreement about teaching English in Yemeni schools was obvious as 82.7%, 81.4% and 61.7% of them responded actively to items 5, 4 and 6 respectively. Moreover, the stipulation of English as a compulsory subject in the secondary schools in Yemen was well favoured by the students as 87.6% of them showed their disagreement to the idea of cancelling this subject from the educational syllabus of the secondary schools.

Regarding the degree of agreement among the students to the idea that educated people, who could speak English, could be the instrument of developing the country was very high (79%). In contrast, the least percentage (35.8%) was in the subjects' support of "the use of English in government and business offices helps in getting things done easily". Finally, in responding to the item "English films are more enjoyable than films in any other language", more than half (55.5%) of the subjects responded positively, 28.3% responded negatively and 14.8% gave neutral responses.

Interview results

In line with the questionnaire results, the interview findings showed that the students have positive attitudes towards learning the English language and negative attitudes toward the culture of the English speaking world as some of them said:

- "I don’t like the western culture. I am very proud of my own. However, I like the western language [English] very much and more than you can expect (a fifth year student).

- English language is the key to open the closed doors for employment particularly at the oil companies. Therefore, we should grasp it and be able to speak exactly as native speakers (a fourth year student).

- I like the English language since I was in Grade 4 at the primary school. However, no one likes to integrate in the culture of the west. Therefore, the English language must not be connected to the western culture (a fourth year student).

- Now, we like it [the English language] after understanding its importance and significance that we have not realized before. We like to know about the culture of the west and not to integrate and be a part of them [the western people] (a fourth year student).

- In my opinion, English language should be the medium of instruction in the secondary schools. So, the student enters the university with a good level in language and communication skills that enables him to overcome any difficulties that he might face (a third year student).

Interestingly enough, three of the students have another different view regarding the culture of the English people as they stated that:
As most of the oil companies that we would like to work at after graduating are from the West such as Canadian Nexen Oil Company, TOTAL Oil Company, Calvalley Oil Company, Halliburton Oil Company and Det Norske Oljeselskap (DNO) Oil Company therefore it is a must to understand the culture of the western people to ease understanding and communication (a fifth year student).

Frankly speaking, I like learning the English language as it is one of the necessities. In addition, I like the culture of the English language speakers because if you understand the language of a people and a culture, you can never be harmed by it. Therefore, we should understand the language, culture and psyche of the western people (a fourth year student).

As they have studied our culture, customs and traditions we should study theirs. For me, I read for William Shakespeare, Lawrence and T. S. Elliot. I like the western canon very much...it is really interesting (a third year student).

Given the petroleum engineering students’ results regarding their motivation and attitudes towards the English language, a discussion of these results is presented in the next section.

**Discussion of the Findings**

This section presents a discussion of the study findings. For ease of reference, the findings are discussed according to the order of the survey objectives. In other words, the results with regard to 1) the petroleum engineering students’ motivation towards learning English and 2) attitudes towards English language learning are discussed separately.

**Students’ motivation toward learning English**

This study was conducted to determine which of the three types of motivation - instrumental, integrative and personal - could be the primary source of petroleum engineering students’ motivation towards learning the English language. The findings show the students’ demonstrated greater emphasis on instrumental reasons for learning the English language including utilitarian (e.g. enable me to get a job easily) and academic reasons (e.g. enable me to carry my tasks more efficiently, it is a university requirement and to further my education). This apparently reinforces the idea that the students see English as playing a vital role in their lives, either currently or in the future. This finding is consistent with Joseba’s (2005) view pertaining to the current need of engineering students as far as English is concerned. Emphasising the significant role of English as a lingua franca in the engineering community, Joseba (2005) states that as English has become *de facto* the international language of science and technology, engineering students have to face this fact since books, papers, handbooks, journals, etc. written in English are included in their reading lists. Furthermore, the English language is one of their most valuable resources in the labour market.

Personal reasons (e.g. for a personal development and to enhance their status among friends) were also regarded as important motives by the students. However, for the last
motivational construct namely, integrative motivation, the students’ results provide evidence that learning English was part of the culture of its people had the least impact on their English language motivation. This might be caused by the general negative attitudes that Arab, in general, and Yemenis in particular have regarded the British and Americans as colonizers of some parts of the Arab World. Additionally, a growing feeling of national confidence may well be another cause of the students’ rejection of any other culture except their own. All in all, the results indicate that petroleum engineering students would like to be bilingual but not bicultural. This accords with Badaroos’s (1988) argumentation that the apprehensive attitude toward English as the language associated with the occupation and westernization has been replaced by a positive attitude that looks at English as a tool for modernization and a prerequisite for finding jobs, particularly in the private sector, and for entering some English-medium faculties in the Yemeni context.

In addition, the results show that almost all the students were interested in attending more English language training courses to improve their proficiency in the English language. The most reasonable explanation for this might be that the students lacked the language skills that would enable them to function effectively in both their academic and professional settings. Having great desires for learning the language is considered to be one of the main components of language learning motivation (Gardner, 2006). It might be worth mentioning that the questionnaire results have been confirmed and thoroughly explained by those obtained from the students’ interviews as presented in the previous section.

With reference to previous research, it was noted that while the present findings were consistent with some studies, they are at variance with others. For example, the present study showed that instrumental reasons for learning English were preferred over personal and integrative ones. This is in harmony with those results of Sarjit Kaur (1993), Al-Quyadi (2002) and Qashoa (2006). On the other hand, the findings of this study were different from those of researchers in other countries (Vijchulata & Lee, 1985; Benson, 1991) as the findings of the latter studies showed that integrative reasons were preferred over instrumental ones.

Students’ attitudes toward learning English
Concerning the students’ English language attitudes, on the other hand, interesting findings were obtained. With regard to their attitudes towards the social value of English, the findings reveal that whilst most of the students responded positively to the idea that “the development of our country is possible mainly by educated people who know English well”, the majority of them responded negatively to "the use of English in government and business offices helps in getting things done easily".

It is not surprising that the students agreed that English language is very important to the development of the country. This is because, they might be aware of the international role English language has been playing on the world arena as the language of technology and science (Al-Haq & Smadi, 1996, Al-Issa, 2002; Zughoul, 2003), business, banking, industry and commerce, transportation, tourism, international diplomacy, advertising
(Enyedi & Medgyes, 1996; Zughoul, 2003), communication (Strevens, 1992; Fonzari, 1999; Pakir, 1999; Hasman, 2000; Zughoul, 2003), telecommunication, mass communication and the Internet (Strevens, 1992; Pakir, 1999; Zughoul, 2003). Zughoul (2003), for example, states that despite the hegemonic and imperialistic nature of English, it is still badly needed in the Arab world for the purposes of communicating with the world, education, acquisition of technology and development at large. With regard to the Yemeni context, Bose (1999) points out that Yemeni businessmen need English to advertise their goods and transact business in the international market, if they are importing and exporting goods. As industrialists they need English in order to promote their business in the international market, to do business partnership with international companies, to recruit men and women from non-Arabic speaking countries and supervise their work.

On the other hand, most of the students, in the present study, had negative attitudes toward the importance of using the English language in government and business offices might be a reflection of the rare use of English in these places as Arabic is the dominant language in the Yemeni context.

In regards to the students’ attitudes towards the educational status of English, the results revealed that besides supporting the idea that English should be the medium of instruction in the secondary schools and at least some subjects like Physics and Chemistry should be taught in English, they were of the view that the teaching of English should start as early as the first grade in the Yemeni schools. Such results revealed that petroleum engineering students wished to see English as a medium of instruction in Yemeni primary and secondary schools. This might stem from the students’ needs, particularly in scientific sections like engineering, to be equipped with a good level in English prior to entering higher education. For example, one student during the interview clearly admitted that because they finished secondary schooling with poor level in both language and communication skills they failed to cope with the academic requirements at the university.

For their attitudes toward the Western culture, the students’ findings revealed that more than half of them showed their interest in the culture of the English speaking World as represented by English-language films. A possible interpretation of these findings might be the result of social tendencies affected by globalization. As Zughoul (2003) noted, in the Arab World in particular, the imposed Western (American) cultural influence as represented in all its forms like fashion, music, culture of the young, fast food, entertainment, businesses transactions, internet cafes, television and Western ways of living is noticeable in every Arab urban center. On the other hand, another interpretation of the current results might be attributed to the students’ desires to know and understand the culture of the West but not to fully integrate in that culture. The latter reason might be more acceptable and applicable as results from the interviews showed that the majority of the students rejected to learn the language to be a part of the culture of the English speaking World i.e. to be bicultural. In addition, some of them explained that they wished to learn about the western culture so as to broaden their horizon and familiarize them with that culture. Moreover, most of these petroleum engineering students, if not
all, would like to join the oil companies, in Yemen, after graduation in which a lot of employers in these companies are from the West. As such, one student averred that it is a must to understand the culture of those people to facilitate communication for example.

Finally, concerning their orientation towards the English language, the students’ responses indicated that almost all of them showed their willingness to express themselves as fluent English speakers. This is an indication of the petroleum engineering students’ great desires to grasp the English language and be able to express themselves as native English speakers. Such feelings might result from their needs to function effectively at their academic domains and more importantly to be qualified enough to join the oil companies in which the sole criterion for employment and promotion is the proficiency in the English language.

Conclusion and Pedagogical Implications

This study aimed to investigate the petroleum engineering students’ motivation and attitudes toward learning the English language. For the students’ motivation, the results showed that instrumental motivation was the primary source of the petroleum engineering students’ motivation toward learning the English language. Personal reasons were also regarded as important motives to the students. However, in regards to the integrative reasons, the results provided evidence that learning English to be part of the culture of its people had the least impact in students’ English language motivation.

In reference to the students’ attitudes, the findings revealed that the students have positive attitudes toward, 1) the use of English in the Yemeni social context, 2) the use of English in the Yemeni educational context, 3) the English language and 4) the culture of the English speaking world as represented by English-language films.

The study findings can be used as a beginning point for providing some pedagogical implications that should be taken into consideration by both English instructors and syllabus designers at the PED at HUST. The implications are as follow:

- The study showed that petroleum engineering students are instrumentally motivated. Therefore, English language courses should be designed to fulfil this purpose. In other words, petroleum engineering students should take English courses which enable them to function effectively at both their academic and occupational settings.
- As these students have greater desires to learn the English language for both utilitarian and academic reasons, therefore, both English for Occupational Purposes (EOP) and English for Academic Purposes (EAP) should be implemented. This means that the current GE course is seen as not appropriate to equip these students with the potential level and type of language skills. Stated another way, as the students’ motivation is “domain-specific” (Mori, 2002, p.32) and not culturally or integratively oriented, this might be a clear indication for the inappropriateness of the GE course.
- To match the instrumental role of the language, petroleum engineering students opined that they would like to attend training courses. However, as the time
allocated for the current English language course is only one year, it might not be enough to help the students be proficient in the language. As such, the duration and number of the courses should be increased so that English is an essential course (s) at the FPE.

- As an employment requirement, an understanding of the western culture has been emphasised by some of the students. As a result, a component in the students’ English language course should be tailored to meet these prerequisites.
- In light of the findings, policy makers at the Ministry of Education in Yemen should direct their attention to the students’ voices to change the current policy in the Yemeni primary and secondary schools to be an English-oriented system. At least English should be the medium of instruction in those scientific sections in secondary schooling to enable the students to function successfully in university education.

To sum up, the current study had been conducted to identify petroleum engineering students’ motivation and attitudes toward the English language. The findings indicated that the students have certain reasons for learning the language and hold significant attitudes toward the use of English language that should be considered by English instructors and syllabus designers at the PED at HUST in preparing their materials, curriculum and teaching methods. In addition, the students’ positive attitudes towards the educational status of English in Yemeni schools could be used to inform policy makers at the Ministry of Education in Yemen to revise the current policy in the Yemeni primary and secondary schools to be English-oriented system.

References


Joseba, M. (2005), Student engineers, ESP courses, and testing with cloze tests. *ESP World, 2* (10).


Appendix A

The Students’ Questionnaire

Instructions: For the following items, please indicate your answer with a tick (√) in the spaces provided. Where a line is provided, please write your answer, if applicable.

A) Background Information

Please tick (√) in the appropriate space.

1. What is your age?

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>21 years</td>
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<tr>
<td>22 years</td>
<td></td>
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<td>23 years</td>
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<td>24 years</td>
<td></td>
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<tr>
<td>25 years</td>
<td></td>
</tr>
<tr>
<td>26 years</td>
<td></td>
</tr>
<tr>
<td>Others (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

2. What is your sex?

<table>
<thead>
<tr>
<th>Sex</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
</tbody>
</table>

3. What is your level of study?

<table>
<thead>
<tr>
<th>Level</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Third year</td>
<td></td>
</tr>
<tr>
<td>Fourth year</td>
<td></td>
</tr>
<tr>
<td>Fifth year</td>
<td></td>
</tr>
</tbody>
</table>

B) Motivation to learn English

1) What are your reasons for learning English? Please rate the following reasons according to their importance.

<table>
<thead>
<tr>
<th>Reasons for learning English</th>
<th>Very important</th>
<th>Important</th>
<th>Of some importance</th>
<th>Of little importance</th>
<th>Not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Because it will enable me to carry my tasks more efficiently.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because it will enable me to get a job easily.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Because I hope to further my education.

Because it is a university requirement.

For a personal development.

Because it will enhance my status among my friends.

To integrate with the western culture.

Others (please specify)

_________________

2) Would you like to attend more English language training courses which will help you to improve your proficiency in the language?

Yes [ ]

No [ ]

C) Attitudes toward learning English

What are your attitudes towards the following issues? Please tick (✓) in the appropriate box:

1) The development of our country is possible mainly by educated people who know English well.

Agree [ ]

Disagree [ ]

Don’t know [ ]

2) The use of English in government and business offices helps in getting things done easily.

Agree [ ]

Disagree [ ]

Don’t know [ ]

3) English should not be a compulsory subject in secondary schools in Yemen.

Agree [ ]

Disagree [ ]

Don’t know [ ]
4) English should be the medium of instruction in the secondary schools in Yemen.

   Agree  [ ]
   Disagree  [ ]
   Don't know  [ ]

5) At least some subjects like Physics and Chemistry should be taught in English at the secondary level in Yemen.

   Agree  [ ]
   Disagree  [ ]
   Don't know  [ ]

6) The teaching of English should start as early as the first grade in the Yemeni schools.

   Agree  [ ]
   Disagree  [ ]
   Don't know  [ ]

7) English films are more enjoyable than films in any other language.

   Agree  [ ]
   Disagree  [ ]
   Don't know  [ ]

8) When I hear someone speaks English well, I wish I could speak like him.

   Agree  [ ]
   Disagree  [ ]
   Don’t know  [ ]

About the authors

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