



Need of Introducing English Proficiency Course into Engineering Education in Bangladesh: A Case Study

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Abstract

This paper attempts to consider the need of introducing English Proficiency (EP) course for the first year students of Islamic University of Technology (IUT), a subsidiary organ of Organization of Islamic Cooperation (OIC). Students of IUT are mostly of different OIC member countries and that's why their previous educational background (medium of instruction) is also different. As IUT is an international university, the medium of instruction here is English. The main objective of this study was to identify the necessity of introducing English Proficiency course for the first year students. This paper argues on the present condition of English proficiency of the first year students of IUT. It also searches for the possible ways to improve their proficiency. In order to achieve these objectives a study was conducted among all the first year students and teachers from different departments. Questionnaires were prepared for both teachers and students separately and data were collected through these questionnaires. Result shows that the first year students should improve their English proficiency through a course of one semester (4 months). Some important recommendations were proposed based on findings to help developing English proficiency of the students.

Keywords: English Proficiency (EP), Modules of English Language, Engineering Education.

JEL Codes: I20

Introduction

Human life is dynamic. The life style, thinking, and culture everything is changing with the present demand of the world. It means the philosophy of life is changing with the changing world. In the ancient era education was started from mosque, mondri, church etc. People were giving priority to their own language and they also hated the other language. This was the same case with Bangladesh where the people including the youth have all the chances to speak and listen to Bangla in their day-to-day lives:

conversation with members of their families and friends, going to movies in Bangla, watching television programs in Bangla etc. The vast majority of the youth, however, do not have enough occasions in their normal lives to speak and listen to English.

It is obvious that people has to change their previous thinking rather they are trying to give emphasis on the present demand. The English language is an international language spoken all over the world (Norton & Kamal, 2003). English language has a vast arena containing the global demand at present and for the days

to come because of its universal appealing in almost every sector as well as meeting the requirements of the new century. English is considered as a means to work or job promotion, to going abroad and to engaging in a wide range of entrepreneurial activities.

Moreover, the falling demand for interpreters and the growing need for a high level of English proficiency in trading corporations have great impact on the educational policies. The expansion of international business requires graduates to be proficient in the productive skills of writing and speaking. Learning English is viewed as the key to open the door to opportunities for self-development and material gain (Tang, 2009).

However, English is generally regarded as a useful tool for communication and economic advancement. It is also an essential tool for scientific and technological advancement (Li & Moreira, 2009). The spread of English across Asia has been propelled by a number of related economic and social factors, including demographics, economic change, technology and educational trends (Bolton, 2008).

Like the other countries of Asia, English is seen as a resource for national development in Bangladesh because of its rule in the global economy, science and technology. The Government supports English Language teaching politically, economically and legislatively in general and tertiary education. In order to improve overall English proficiency, government of Bangladesh has already been taken several steps among which emphasize was given over educational institutions. As a result to enhance these students' language proficiency, the establishments which provide tertiary education, such as; universities; colleges of technology; colleges of administration and business studies; and institutions of health studies all should have a special English

language teaching programme as most of the students are entering higher educational institutions without having sound English proficiency skills as their previous medium of instruction was not English.

Islamic University of Technology (IUT), a subsidiary organ of Organization of Islamic Cooperation (OIC), is one of the international universities in Bangladesh where students are coming from different member countries of OIC. As an international university the medium of instruction of IUT is English.

English is used for textbooks, course materials, and lectures (Taguchi & Naganuma, 2006) and assessment system. In such a university, English is viewed as a tool, not as an end. English is a means for reading, writing, and talking about current issues in content courses. Thus, attained English skills are a by-product of the process of gaining content-area knowledge. In an English-medium university, English is used for truly functional and communicative purposes (Taguchi & Naganuma, 2006), So the students who are coming with different educational background from different countries and studied English as a foreign language are facing a lot of problems with their studies as they did not have sufficient proficiency of English.

This paper argues about the present condition of English proficiency of the first year students of IUT and find out the way to improve their proficiency. Research found that students need more opportunities to practice English and use it communicatively inside and outside the language classroom (Al-Husseini, 2004) and help them apply their English competence in real-life (Swan, 1985) situation.

This paper has the two major objectives. First one is to assess the English proficiency of the first year students of IUT and the second one is to find out the need of English proficiency

course for the first year students of IUT taking opinions from the teachers and students. Therefore, the study tries to find the answers to these two main questions:

1. What is the English proficiency level of the first year students of IUT?
2. How their English proficiency level can be improved?

Methodology

Islamic University of Technology (IUT) is an international University that provides multinational, multicultural, multilingual environment as students are coming from different member countries of OIC. So students' medium of instruction was also different like Arabic, French, Urdu and English. As the medium of instruction in IUT is English, many students may face problems with their study just after starting the first semester. Therefore, first year students can provide the actual information about the need of English proficiency for them. For this reason all the first year students of IUT have been considered as the population of this study. On the other hand teachers can also provide the actual information about the English language proficiency of the first year students of the IUT. So, all the teachers have also been taken within the population.

This study includes all the population as sample because we have considered only one institution for our study and so the total number of first year students and all the teachers of different departments of IUT was our sample which was not too large. Total sample size is shown in table 1.

This study includes five departments which are listed in table 1 as sample. The researcher selected this university purposively, as it is the only international university where official language is English. All teachers and students, who were available during the research period, were selected as the research sample. The

questionnaires were the main tools for data collection which were developed by the researchers under the close guidance and supervision and it had been validated with the expert's opinion. After establishing the validity and reliability of the questionnaire, a cover letter prepared for the respondents explaining the purposes of the study and assuring them about the confidentiality and anonymity of their responses. The form of the questions was mixed: both open ended and closed ended questions were involved.

The study was conducted into two Phases

Phase I: Collecting necessary data from students: Two separate questionnaires were prepared for collection of data from students. One questionnaire was prepared and distributed among those first year students of MCE, EEE, CSE, and CEE department who come after completion of college education (Grade 12). This group is mostly of homogenous in nature. Another questionnaire was prepared and distributed among those first year students of TVE department who come after completion of technical and vocational education. This group is mostly of heterogeneous in nature.

Phase II: Collecting necessary data from teachers: Besides students, researchers also emphasize on collecting data from the teachers as they are directly involved in teaching-learning situation. Moreover it is the teacher who can observe first year students' English proficiency (speaking, writing, reading and listening skills) more closely. Considering the above importance another separate questionnaire was prepared for collecting necessary data from teachers.

Data were collected in two ways: (i) Directly from the teachers by the researcher (ii) Through two volunteers to carry the questionnaires to the respondents (only students). The questionnaires were distributed among the available respondents during the

data collection period and the questionnaires were collected after immediate completion.

Both quantitative and qualitative analysis approach was used to analyze the data. For quantitative analysis the frequencies of the information in the questionnaires were calculated and arranged in a tabular form. Based on frequency, percentages of the responses in different aspects were calculated which is shown below:

Analysis and Findings

Need to Improve English Proficiency: Fig 1 and Fig 2 show the responses from the students and teachers about the necessity of English proficiency course along with all the modules like speaking, listening, writing and reading. Fig 1 and Fig 2 reveal that 63% students feel to improve their English proficiency and 89% teachers gave the same opinion where as 37% students and 23% teachers have given the opposite view in this regard. So, most of the students and teachers feel the necessity to improve their English proficiency.

Need to Introduce English Proficiency (EP) course

The next question was asked to both the teachers and students about the ways to improve students' English proficiency? Fig 1 and Fig 2 show whether an English proficiency course is needed or not to improve their proficiency. According to the above figures, around 79% students and teachers have given their opinion for introducing English proficiency course. On the other hand, few students (21%) and teachers (12%) have given their opinion against introducing the course. From the above opinion of the teachers and students, it can be concluded that an English proficiency course needs to be introduced for the first year students.

Regarding the modules of English Language

There are four common basic skills in English. These are speaking, listening, writing and reading. So the question was asked about "Which skills can be included in the EP course?" to both the teachers and students. The answer of this question can be given from the Fig 1 and Fig 2.

The above figures reveal that most of the students (79%) and teachers (50%) think that all the modules (speaking, listening, writing and reading) should be included in the course where as less than 20% students and teachers have given the opinion that all the modules should not be included in the course. An exceptional case was found that about 40% teachers did not give any opinion on this issue. To sum up, as most of the students gave their opinion to include all the modules and most of the teachers did not bear any negative attitude regarding this issue, so all the modules can be included in the EP course.

Teachers' opinion regarding students' English Proficiency (EP)

Separate questions were asked to the teachers regarding first year students English proficiency including their writing skills during classroom teaching and assessment. Almost all the teachers (99.99%) found that the first year students possess moderate English proficiency skills. Regarding writing skill only 88% teachers commended on satisfactory where as no teacher commended on good or excellent. It can be concluded that, students need to improve their English proficiency skills up to a standard efficient level which can meet the international level. A course can be included to improve the English proficiency of the students where writing skill can be incorporated along with others.

Analysis according to the background of the students

Islamic University of Technology is one of the three international universities in Bangladesh (University Grants Commission, 2012). Students of IUT can be categorized into three broad categories depending on their medium of instruction. These are: (i) Bangla (ii) English (iii) Others (whose medium of instruction is other than English like Arabic, French, Urdu, etc). In order to find out the need of EP course, at the very first step data were calculated depending on students and teaches opinions. In the second steps data were analyzed depending on students' previous medium of instruction which is shown the table 2.

Fig 3 reveals that, 86% students of Bangla background feel that they need to improve their English proficiency where 92% students from English background and 75% students from other background bear the same feelings. It can be concluded that first year students of IUT need to improve their English Proficiency as majority of students (more than 75%) from all background responded in favor of this.

It also shows the same figure around 85% students from Bangla and English background and 63% students from other background responded in favour of introducing an EP course along with other regular course. Depending on such demand IUT should introduce an English proficiency course for all first year students.

Moreover, analysis represents in figure 3 that most of the students (80%) from Bangla and English background agreed upon including all the modules of English in the EP course and 75% students from other background agreed on the same. EP course should include all the modules of English.

Duration of the course: If EP course is implemented in engineering education, then next question arises about the duration of the course considering existing academic load of the students. With this view point, researcher asked to the first year students and also the teachers regarding the duration of the EP course which is shown figure 4. It reveals that, 53% teachers wanted that the duration of the English Language Course should be one semester. On the other hand 34% students wanted one semester and 33% students wanted 2 semesters duration for the course. It can be concluded that the duration of the course can be one semester as students are busy with their regular courses.

Analysis with help of Chi Square test

Table 3 shows that the computed value of λ^2 is much higher than the critical value of λ^2 at 0.01 level of significance. It indicates that opinion given by the students differ significantly.

With 99% confidence, it can be said that opinions given by 160 students from different disciplines have influence over the implementation of the new English proficiency course.

Table 4 shows that the computed value of λ^2 is higher than the critical value of λ^2 at 0.01 level of significance. It indicates that opinion given by the students differ significantly.

With 99% confidence it can be said that opinion given by 36 teachers from different departments have influence over the implementation of the new English proficiency course.

To sum up the following findings can be emerged:

- First year students need to improve their English proficiency skill.
- An English Proficiency (EP) course should be introduced along with other regular course in order to improve their English

proficiency which is provided by IUT for the all background students of first year students.

- The EP course needs to be designed in such a way that all the basic modules for improving English proficiency skills such as speaking, writing, reading and listening should be included.
- It is also found that few students felt confident in their ability to write in English with a lack of vocabulary as major problem. In spite of that they were also very positive to introduce EP course where writing skill can be incorporated along with others.
- Considering the busy curriculum of engineering education, the duration of the EP course for first year students will be one semester/ four months.

Recommendations

- Students from different backgrounds gave almost the same opinions regarding their English proficiency, introducing EP course and modules. But there should have been a big difference among the students who are coming to IUT from English background and other background (such as Bangla, French, Arabic etc). A qualitative research/in depth research can be conducted to examine whether any biased opinion was present or not.
- IUT should provide an EP course for all the first year students at free of cost for one semester. After completion of EP course, a norm reference test will be carried on to evaluate the student's English proficiency. Those who will not achieve a satisfactory level, after completion the test, an extensive care should be taken to improve their proficiency.
- It is also suggested that an English Language Club (ELC) can be established like other formal societies at IUT in order to create English environment and open the door to practice English regularly.

Conclusion

We can conclude that the spread of English has had a strong and irreversible impact in the educational domain. For children living in the 21st century, it is imperative to acquire communication abilities in English as a common international language which is viewed as the key to open the door to opportunities for self-development and material gain. Considering the huge demand, the authority should immediately introduce EP course for the first year students in order to meet the growing need for a high level of English proficiency. Besides this, individual efforts should be a greater impact on improving English proficiency. On the individual level students need to be proactive in using language in everyday situations but on the environmental level the university needs to think about how they place students in accommodation and, at the departmental level, tutors need to create opportunities for collaboration across language groups (Wu, Hammond, Barnes, 2009). With these combine endeavors students of engineering education will achieve the desired proficiency of English.

Table-1: Total Number of students and teachers

Name of the department	Expected Sample Size (Students)	Collected Responses (Students)	Expected Sample Size (Teachers)	Collected Responses (Students)
Mechanical and Chemical Engineering (MCE)	62	35	17	6
Electrical and Electronic Engineering (EEE)	96	45	23	12
Computer Science and Engineering (CSE)	58	30	16	8
Civil and Environmental Engineering(CEE)	45	30	4	4
Technical and Vocational Education (TVE)	52	20	8	6
Total	313	160	68	36

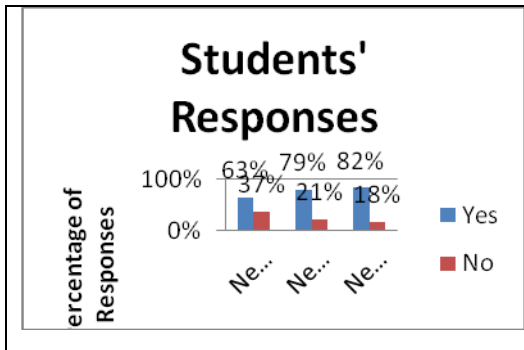


Figure: 1

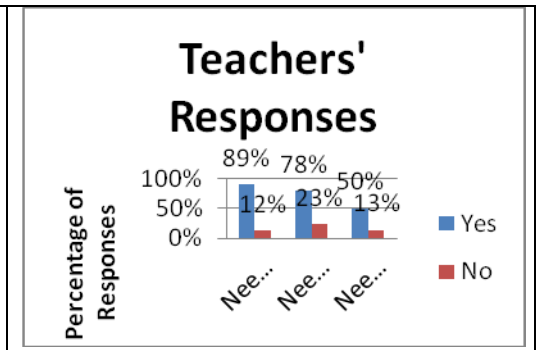


Figure: 2

Table- 2: Category of response on the basis of Previous Medium of Instruction

Category of responses	Background of students (Previous Medium of Instruction)		
	Bangla	English	Others
Need to improve English proficiency	86%	92%	75%
Need an English Proficiency course	84%	84%	63%
Need to include all the modules	82%	86%	72%

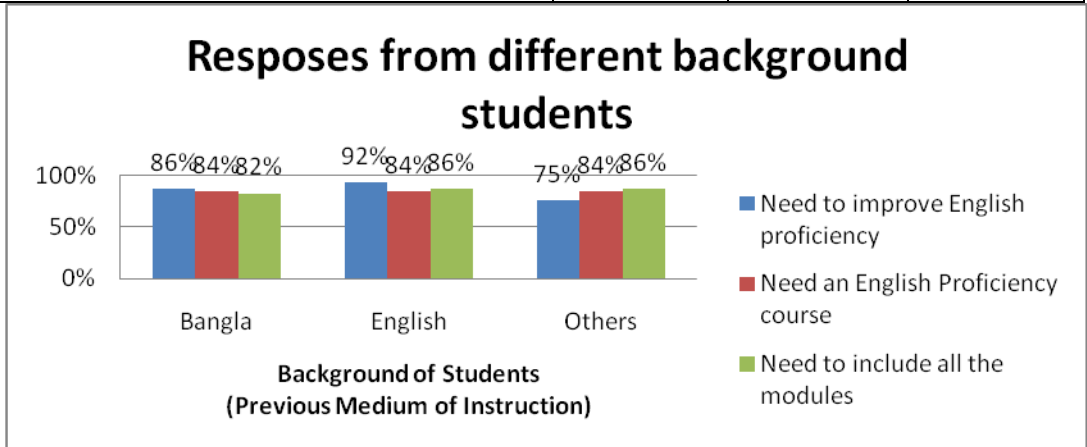


Figure: 3

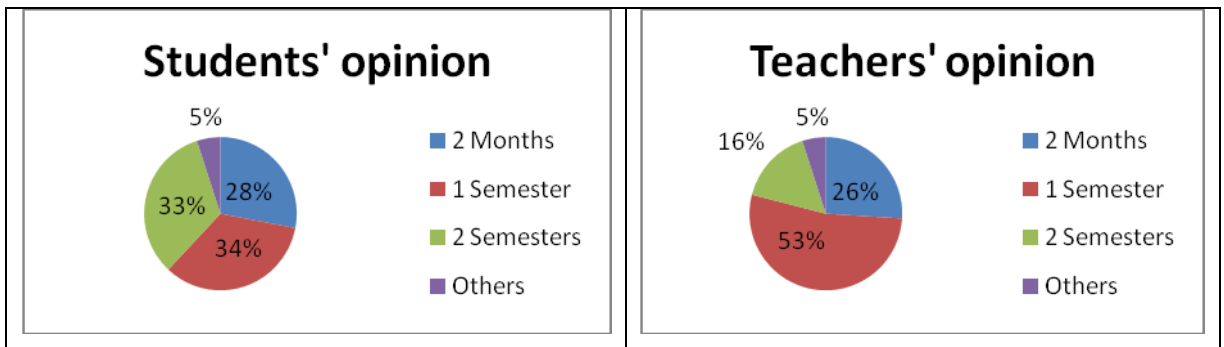


Figure: 4

Table-3: Chi Square test (Students' opinion)

Category of responses	f_o	f_e	$f_o - f_e$	$(f_o - f_e)^2$	$(f_o - f_e)^2 / f_e$	Observed value	Degrees of freedom	Critical value at .01 level of significance
Yes	127	80	47	2209	27.61	$\lambda^2 = 55.22$	1	$\lambda^2 = 6.635$
No	33	80	-47	2209	27.61			

Table-4: Chi Square test (Teachers' opinion)

Category of responses	f_o	f_e	$f_o - f_e$	$(f_o - f_e)^2$	$(f_o - f_e)^2 / f_e$	Observed value	Degrees of freedom	Critical value at .01 level of significance
Yes	26	18	8	64	3.55	$\lambda^2 = 7.11$	1	$\lambda^2 = 6.635$
No	10	18	-8	64	3.55			

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