The Status of the Computer Science and Engineering Students' English at Bangladesh University

Dr. Md. Nesar Uddin[*], Md. Fahim Ashfaque

Department of English, Bangladesh University, 5/B, Beribandh Main Road, Adabar, Mohammadpur, Dhaka – 1207, Bangladesh

[*]**Corresponding Author**

ABSTRACT

In this globalized world, the English language is a vital factor no country can do without. Bangladesh is no exception. With its developing economy, Bangladesh has developed the need to communicate with countries around the world. And English is one of the preconditions to excel in communication worldwide and subsequently in business. It upholds its significance in all sectors of life—education, business, foreign expertise, research, and so on. Irrespective of the field, English competency is a must in order to prove oneself as competent in one's distinct field. Engineers are no exception. Computer engineers with great English competency can contribute much to their individual lives as well as to the country. Due to this, along with an umpteenth number of other causes, computer engineers should take having a good command of English seriously. Teaching English at the highest level is given the utmost priority in the prevailing situation in Bangladesh. This paper explores English's status in the CSE classroom at Bangladesh University. In a qualitative manner, the whole study is conducted by shedding light on four different learning modules – speaking, reading, listening, and writing.

Keywords: CSE students, English language challenges, academic performance, technical higher education institutions.

INTRODUCTION

Communication is the ultimate factor to foster and flourish any kind of advancement, be it individual, professional, or social. In the age of globalization, teaching as well as learning a language that is essential and inevitable should be given top priority since communication is crucial in all vocations as well as in social and personal life. And without a doubt, in the context of today, this language is English. Every cognizant person in this day and age understands the importance and necessity of studying English.

In this regard, Lee (2018) says that effective English language use has grown to be a significant concern in the twenty-first century due to globalization. The majority of the world's countries must communicate with one another. He continues by saying that English's status as a global language has expanded to distant places. It has become so because of the introduction of communicating digitally. Additionally, English has emerged as the global medium of commerce. Therefore, he contends that learning English right away is essential for anyone wishing to pursue a career that involves collaboration and relationships with people around the world. Here, the researcher has attempted to elucidate the necessity and significance of learning English on a worldwide platform.

Shrestha et al. (2015) state, "People involved in diverse fields and professions use it as a means of communication to acquire information, clambering the ladder in their academic field, and reaching the

summit of success in their endeavors, conducting researches, publishing their research findings and executing their duties in their respective areas of work."

English proficiency is essential in the engineering industry, whether it be in engineering education or the engineering profession, just like it is in every other area of education, employment, and business. Engineers should be able to communicate with fellows, colleagues, and clients in English, publish their research articles, give oral presentations at conferences and seminars, and learn from books, journals, the Internet, and other sources (Shrestha et al.). According to Reimer (2002) in Shrestha et al. (2015), communication skills are crucial for engineers who plan to perform their professional responsibilities from an international perspective. He explains that engineering communication skills are simply a few fundamental components of the English language, such as proficiency and comprehension of the fundamentals of visual communication.

It is undeniable that effective communication is crucial for engineers of all stripes. Regardless of their educational background, students must have exceptional English communication skills. Thaky (2014) says, "Lack of sufficient communication skills serves only to undermine the image of the engineer." As efficient engineers, their communication with various types of clients and academics has to be perfect, both in their home country and abroad. It will be unfortunate for them if they are unable to communicate effectively.

According to Gupta (2013), engineering candidates that possess strong soft skills and English communication abilities succeed both academically and professionally. However, she contends that people who lack certain abilities suffer from dissatisfaction and depression. From a Bangladeshi standpoint as well, this is accurate in the most literal sense of the word. Because they lack the necessary command of the English language, many engineers with the necessary qualifications occasionally continue to be unemployed or underemployed for an extended period of time. Therefore, this study tries to specify the issues that plague them concerning English skills. It will aid the future students of engineering to improve their skill level and guide them in their career.

ISSUES FACED BY STUDENTS

Students want to pursue engineering upon finishing the Higher Secondary Certificate exam. Biswas (2014) mentions, "It is now considered that the level of English language in local higher secondary passed students is poor and thus is not sufficient for technical education." The instruction medium at the secondary level is mainly the mother tongue, Bangla. When teaching English to tertiary engineering students, this background is crucial. English is the primary language of instruction in engineering schools at the tertiary level. Thus, students are now required to read textbooks, listen to the instructors' lectures, and write on final exams in English.

The students with varying levels of command over English arrive at engineering colleges. Students from Bangla-medium backgrounds typically do less than those from English-medium and English-version backgrounds. Once more, it is obvious that students from prestigious urban colleges do significantly well compared to students from other, much less renowned colleges when the language competency of solely Bangla-medium pupils is taken into account. When an English instructor at an engineering university encounters students with varying levels of linguistic proficiency—some performing exceptionally well, while others are performing really poorly—it becomes extremely challenging for the instructor to meet the objectives of the course. This circumstance is brought up by Ur (1996), who explains that in a big class with students of varying linguistic proficiency, some students find the course contents easy to understand while others find them challenging.

Another issue with teaching and learning English at Bangladeshi tertiary engineering institutes is the number of pupils in a class. Ten to twenty pupils is the recommended number for a language lesson. "Teachers working in private language schools in Europe may expect classes of ten to fifteen; for them, twenty is typically considered as overly large," according to Anderson (2016). Nevertheless, a higher engineering institution in Bangladesh cannot have just 20 students. Numerous students frequently come to study

engineering at the tertiary level due to the large population and educational policies. Keeping only 20 kids in a class is just not feasible. Since these students came to study engineering rather than English, English professors are unable to persuade engineering school administrators to limit class sizes to 20 students, at the very least for English language classes. Frequently, a class consists of more than fifty pupils. A large class size makes it impossible for the teacher to focus on each student individually and assess everyone's performance within the allotted time (Le, 2002). As a result, only a small number of students who do better and more quickly get their scripts checked by the teacher; the poorer students tend to become disinterested and wait for the teacher to provide answers to the issues.

The second critical issue is the English course curricula at engineering tertiary institutions. According to Huckin & Olsen (1991), even if scientists and engineers possess "brilliant and creative" technical skills, they will remain "unnoticed, unappreciated, and unused" if they are unable to effectively communicate with their "co-workers, clients, and their supervisors." "Communication skills are not merely useful; they are crucial instruments for success, even for survival in real-world contexts," they continue, with this viewpoint. It is assumed here that communication skills refer to being able to communicate in English.

English is crucial in Bangladesh at every level of education, from before primary to the highest degree. In many professional fields, English is a language that is frequently used for communication. People know that improving their English will help them thrive in Bangladesh. As for using English in Bangladesh, Maniruzzaman (1998) says:

"In actuality, the English language is utilized in every part of Bangladesh, including offices, courts, schools, the media, and occasionally even parliament. This is due to the fact that English is now not only the language of the United States and England, but it is also the language that is spoken, studied, and read by the greatest number of people worldwide and is acknowledged as a second or foreign language. English does, in fact, enjoy the status of a second language to a limited degree in the activities of the educated, especially in Bangladesh's urban areas, even if it is a foreign language officially (p.6)."

English is clearly essential for everyone, especially Bangladeshi engineering students. The issue that now has to be addressed is whether engineers are proficient enough for their jobs. Furthermore, it has to be seen if our engineering courses adequately prioritize teaching and learning English; if not, the issues and drawbacks should be investigated.

According to Hossain (2013), linguistic research on engineering students at a private university revealed that, despite having studied English for roughly twelve years, the students' level of proficiency was not very high. They were required to master a variety of linguistic communication techniques in English because they were determined to lack in English skills.

It has been noticed and experienced that numerous issues with educating English in the engineering universities as working academics in the subject of English language instruction. Hassan & Mostafa (2016) attest to the fact that no systematic or experiential research has been conducted in Bangladesh to far to assess the English language requirements of our engineering students, which lends credence to this viewpoint. They go on to say that the appropriate authorities never assessed the courses that were put into place. The researchers contend that this is the reason why the courses ultimately failed to produce success. Therefore, more research on engineering students' English proficiency is required.

PROBLEMS FACED BY TEACHERS

Reading, writing, speaking, and listening are the four fundamental English proficiency skills taught to students of engineering in Bangladesh, with an emphasis on communication abilities. Engineering students' English language teachers frequently lament that their pupils place less value on the English language than they do on their engineering courses. Additionally, teachers have time constraints as well. certain

deficiencies in fundamental language abilities, especially in speaking, grammar usage, and vocabulary. This is made clear when interviewers for various positions state that candidates' poor communication skills cause them to not meet interviewers' expectations. Zaman (2007) highlights this circumstance for computer science and engineering graduates:

"A significant portion of CSE graduates remain jobless in spite of this strong demand. Following the selection process, these graduates are typically deemed "not employable." To be honest, these poor graduates are severely lacking in the fundamentals of communication, programming, software engineering, problem-solving, and the English language. Since communication skills are highly valued in today's workforce, the proficiency in English among students studying engineering must be enhanced using the most efficient instructional strategies. This circumstance has been recognized by Hasan (2019),

"Universities do not adequately prepare their pupils for the demands of the industry. Corporate entities and manufacturing owners are consequently compelled to hire workers from abroad. They claim that in the fourth industrial revolution, there is a lack of professional as well as technical language skills that are considered necessary in the rapidly evolving the market.

Engineering school English language instructors deal with both academic and extracurricular issues. The duration of their training is the first issue they encounter. They contend that they are not given enough time to teach their course. Improving the students' English language proficiency in this short amount of time is very impossible. Another obstacle to teaching language skills is the length of the class. Students are given an assignment by the teacher. Some pupils pick things up quickly and do the assignment in the allotted time. Some of the class's slow learners struggle to finish assignments within the allotted time, so they wait for their teacher's response after the allotted time has passed. Weak students take about three times as long as fast students, according to teachers' general observations (Gupta, 2013). Teaching English language skills in this setting is not optimal.

The second issue that English language instructors deal with is that their pupils have varying degrees of motivation, linguistic competency, and comprehension capacity. It is difficult for an English language teacher to help all of his pupils work toward the same objective because there is no standard screening for linguistic competency among engineering students. While some students find the class activities very engaging, others find them dull, which could lead to them becoming passive in class.

Although data show unemployed engineers are growing daily, a considerable corporate need for engineers in Bangladesh is rising. This need for engineers is growing internationally as well, however this has little effect on the rate of unemployment regarding our engineering graduates. A paradox at play here: number of unemployed engineers is growing larger and larger, on the other hand, big corporations are complaining that they are unable to find competent candidates for open positions. This circumstance is explained by Zaman (2007),

"Almost all of these graduates are from the Private Universities in Bangladesh and India. So they remain unemployed having a CSE or relevant degree, even though we have a serious shortage of fresh competent graduates. This is a sad situation for both parties: we are looking for people, and they are looking for jobs; yet we cannot offer jobs to them!"

Corporate human resources departments typically ask candidates about their communication and English language skills. This circumstance inevitably calls for engineering schools to give English language instruction and communication skills more emphasis.

English language proficiency is a must for obtaining a respected job in Bangladesh. Additionally, it might lead to several opportunities in the worldwide labor market. Thus, employment and the English language are directly tied. General English language classes are offered to engineering students in Bangladesh at the

university level. They are not designed with engineers' needs in mind. Even while some colleges have just started offering English classes that emphasize communication skills, the methods used for instruction, assessment, and evaluation are inappropriate since the courses' objectives are not clearly stated. Communication skills are a problem for students of any engineering discipline and try to apply to overseas universities focusing on engineering for further education.

METHODOLOGY

The study followed the case study by applying qualitative method. By doing so, it is able to examine the academic and linguistic setbacks endured by students in the CSE department of Bangladesh University. For investigating complex, context-dependent issues in depth, a qualitative design was considered appropriate.

Research Design

The case study model was selected to closely examine English language learning challenges within CSE students' real-life educational setting. According to Yin (2014), case studies are particularly effective if the boundaries are not clearly defined between the phenomenon and the context. It is also the case with English language learning in technical education.

Participants

Twenty-five undergraduate students from the CSE department participated in the study. Participants were chosen through purposive sampling. Therefore, it includes a range of backgrounds, including Bangla medium, English version, and English medium education

Data Collection

Data was collected through two methods: a Questionnaire and classroom observations. The questionnaire included relevant multiple-choice fill-in questions and several long paragraph queries. Furthermore, a few classes were used to evaluate teacher-student interaction. Following ESP literature (Hyland, 2013), the Syllabus and instruction materials were also evaluated to ensure the fulfillment of the CSE students' academic needs.

Data Analysis

Questionnaire transcripts, field notes, and documents were analyzed according to their themes. It was done by using a grounded theory approach. A Google form was used to manage the data and identify recurring patterns. Common themes included mismatches between curriculum and student needs, variations in student proficiency levels, overall dissatisfaction with the current English teaching approach, and the lack of training and experience on the part of the teacher. These themes were consistent with findings in prior ESP studies (Basturkmen, 2010; Flowerdew & Peacock, 2001).

RESULTS AND ANALYSIS

Self-Assessment of English Language Skills

Table 1 showcases how students from the CSE department of Bangladesh University evaluated their English skills. These are: listening, speaking, reading, and writing. Among these four skills, Listening appears to be the most difficult skill area for them. 40% of the students placed themselves at the basic level, and 20% said they were beginners. Only 16% identified as upper-intermediate, and a single student (4%) deemed themselves to be advanced. Speaking followed a similar pattern where 36% said they were at the basic level, 24% at beginner, and just 16% at upper-intermediate. In contrast, Reading had slightly stronger results. 36% chose intermediate, 16% selected upper-intermediate, and 20% placed themselves at advanced. Writing was spread more evenly with 28% at intermediate, 28% at upper-intermediate, and 16% at advanced.

Table 01: Self-evaluation of English Skills

Linguistic Domain	Beginner (%)	Basic User (%)	Intermediate (%)	Upper-Intermediate (%)	Advanced (%)
Listening	20.00	40.00	24.00	12.00	04.00
Speaking	12.00	28.00	44.00	04.00	12.00
Reading	04.00	08.00	40.00	36.00	20.00
Writing	08.00	08.00	56.00	12.00	16.00

These numbers show a clear divide between productive and receptive skills. Listening and Speaking are weakest. While Reading and Writing seem more manageable for some students. The low confidence in listening and speaking points to a lack of practice using English in real time. 58.3% of the participants belonged to Bangla Medium schooling. It sheds light on their limited access to English in the practical sense. They were taught in the Grammar Translation Method or GTM. Therefore, most students are more familiar with written formats and structured exercises compared to interactive or spontaneous use.

Distribution of English Proficiency Levels by Skill Type

Figure 1 summarizes the challenges CSE students have encountered while learning English. At the top, they deem limited speaking practice as the hardest hurdle to learning English. 56% of the students feel they do not have enough opportunities to hone their speaking skills. It has a direct impact on their presentation skills. 40% of the students face difficulties in presentations.
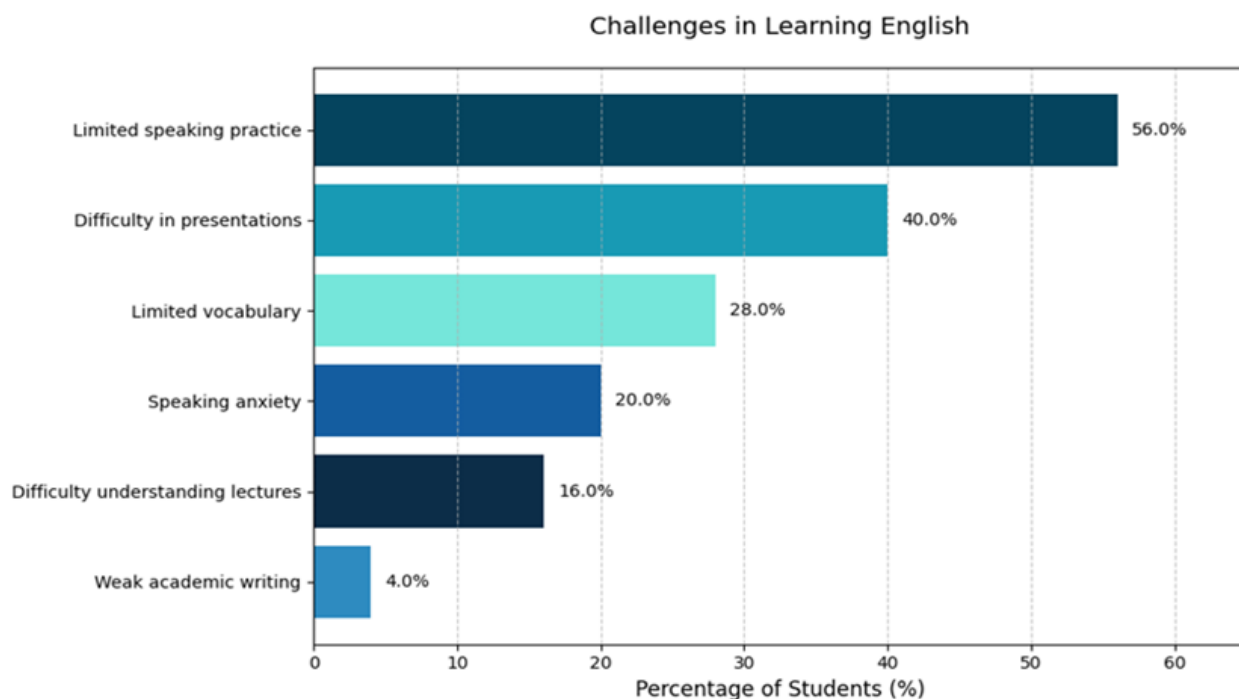

Figure 01: Students' perspective on challenges in learning English

Lack of opportunities also trickles down to having speaking anxiety. 20% of the students report having nervousness and anxiety when speaking in English. Most students in Bangladesh are from a Bangla Medium background, and therefore, they have a limited vocabulary when communicating in English. 28% of the students evaluate themselves to be limited in English vocabulary prowess, which leads to a narrow understanding of lectures given to teach English. 16% of students find it difficult to understand the lectures at the university, and as a result, their learning of the English language is greatly hampered. However, concerning the writing aspect, similar to the data shown in Table 01, they find it comparatively much easier. Only 4% report of having trouble with academic writing.

Student Satisfaction with Existing English Courses

Table 2 captures the level of satisfaction evaluated by students concerning the current state of English teaching. Only 8% strongly agreed that they were satisfied, and another 32% agreed. However, the remaining 60% were either neutral (28%) or dissatisfied (32%). The high percentage of neutral responses likely comes from students who are unsure whether the teaching is helpful, or who do not want to criticize it directly. Still, 37.50% of students push for a specific course in English. As it would cater to their personal weaknesses, they consider it to be a more effective approach.

Chart 02: Current Teaching vs. Need for Specific Approaches.

Response	Satisfied with Current Teaching (%)	Need for Specific Approach (%)	Key Insights
Strongly Agree	08.00	37.50	High demand for targeted course content
Agree	32.00	33.30	Similar support for both
Neutral	28.00	20.80	Less certainty about current teaching
Disagree	28.00	4.20	More dissatisfaction with current methods
Strongly Disagree	04.00	4.20	Low disagreement across both categories

The current state of English teaching toward CSE students is not being received as effective by most students. The data show that less than one in ten students express strong satisfaction. It supports the claim that English language instruction in technical departments is often generic and disconnected from the specific goals of the students.

Demand for English Courses Specific to CSE Students
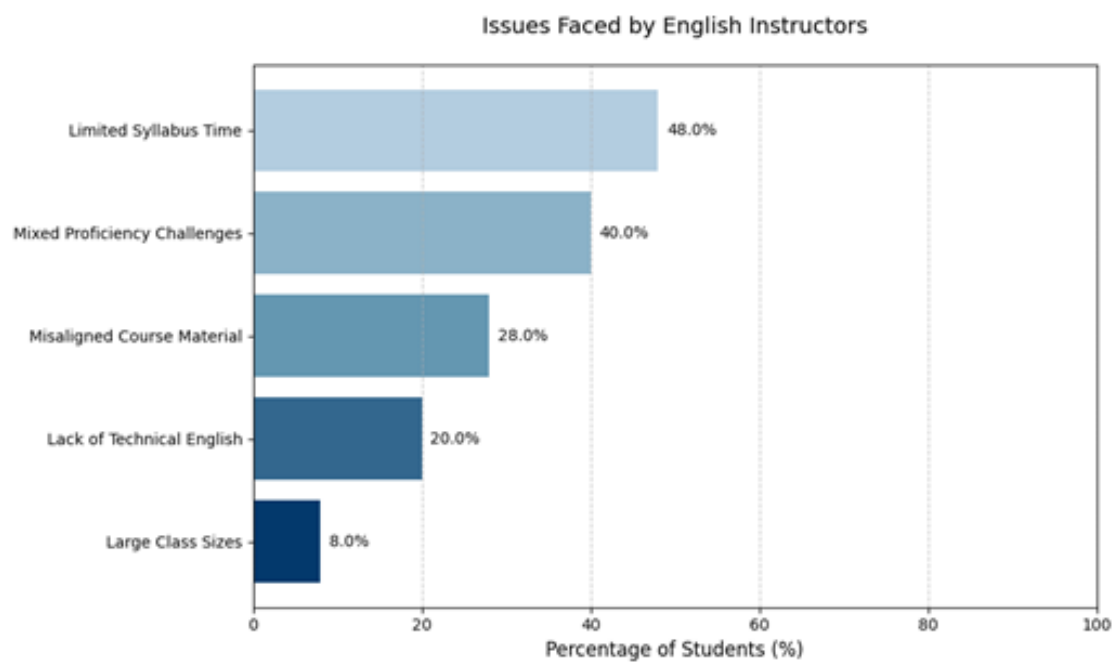

Figure 02: Students' perspective on issues faced by teachers

Figure 2 shows how students responded to marking the issues faced by their instructors. Most of the CSE students at private universities feel their instructors have a limited syllabus time. It is because of the excess of exams within a shorter semester, and 48% of the students are sufferers of the ongoing system. Moreover, students stated that their class has a varied level of proficiency in English, and 40% think their teachers are not well suited for such an environment. In addition, misaligned course materials and a lack of technical English (48%) are the other two major issues. Yet, most students are satisfied with their class size, as only

8% seem affected by the class size. Gathered from the survey, private universities such as Bangladesh University tend to have only 20-25 students per class.

FINDINGS

Divergence Between Receptive and Productive Language Skills

The findings in sections 4.1 and 4.2 indicate a split between the receptive (reading and writing) versus the productive (listening and speaking) skills of CSE students. This divide reflects the nature of their educational background, where instruction is text-heavy, reliant on GTM, and almost entirely focused on examination outcomes rather than communicative use (Rahman & Pandian, 2018). Therefore, they cannot present ideas, express themselves in discussions held in English. Therefore, they cannot comprehend spoken English in professional settings and are unable to advance in their careers. 56% report a lack of speaking opportunities, and 40% directly cite struggles with presentations. These are not minor gaps. They directly affect their performance in technical areas. Communication, group collaboration, and project presentations are critical for any CSE student.

Disconnection Between Course Content and Student Needs

The satisfaction level data pulled from section 4.3 reinforces that the current English courses do not align with student realities. Only 8% strongly agree that they are satisfied with the current approach. At the same time, 37.5% ask for a specific English course targeted to their needs. A probable cause is that the current curriculum is built around generic content. The communication needs of CSE students are not met by it. To live and thrive in a professional setting, people must learn English to a certain degree. They need English in order to present projects, make reports, explain code, and take part in meetings.

Structural Limitations Faced by Instructors

Teachers are also facing difficulty in teaching the students. According to 48% of respondents, teachers face severe time constraints for exam-packed semesters. 40% of the students believe instructors are not properly trained to handle mixed-proficiency classes. Limited time, misaligned materials, and insufficient pedagogical strategies are hurting English learning outcomes. CSE graduates who are competent in English are very few in Bangladesh. The best-designed syllabi will fall short in execution without resolving these institutional issues.

CONCLUSION

It is clear that there is a disconnect between the courses taught and what CSE students need. The content does not reflect their technical discipline or prepare them for professional environments. On top of that, teachers are working within tight timeframes and are not always trained to deal with students at different proficiency levels. These institutional barriers make it even harder to improve outcomes.

The findings point to an urgent need for English courses that are designed for the needs of 21st-century computer engineers. CSE students do not want to just pass English. They need to use it to present, collaborate, and explain complex ideas clearly. These students may be technically sound. However, because of their limited English proficiency, they will be held back in their professional life.

SUGGESTIONS

The universities need to fix the mismatch between course content and student needs. Dedicated English courses should be introduced that meet gathered needs of the CSE students. These courses must go beyond the existing methods. Instead, they should prioritize skills like giving technical presentations, writing project reports, documenting code, and communicating ideas clearly to CSE students. The syllabus should include tasks such as preparing email summaries and participating in simulated project meetings.

Workshops should be organized for English teachers. They should become proficient in scaffolding techniques as well. They can progressively raise expectations and provide help according to the level of the students. Additionally, academic calendars must be reconsidered by universities as the semesters are too hectic. There is hardly any time for meaningful language practice because of the excessive number of tests. Less frequent and skill-based exams should be taken.

REFERENCES

1. Ahmad, I., & Shah, S. (2019). Medium of Instruction and Its Impact on Students' Learning: A Comparative Study. Journal of Education and Educational Development, **6**(2), 282–295.
2. Anderson, J. (2016), "What to consider when teaching English in large classes", The British Council, https://www.britishcouncil.org/voices-magazine/what-consider-when-teaching-english-large-classes. Retrieved 26 March 2019.
3. Basturkmen, H. (2010). Developing courses in English for specific purposes. Palgrave Macmillan.
4. Biswas, S. K. (2014), "Problems of Tertiary Engineering Education of Bangladesh and some suggestions for possible improvements", International Conference on Mechanical, Industrial and Energy Engineering 2014, 25-26 December, 2014, Khulna, Bangladesh.
5. Chambers, F. (2011). ESP Teaching and the Role of the ESP Teacher. English for Specific Purposes World, **10**(33).
6. Chowdhury R, Kamal M. (2014), "Balancing conformity and empowerment: the challenges of critical needs analysis in an EAP course at Dhaka University", English for Academic Purposes in Asia: Negotiating Appropriate Practices in a Global Context. Edited by: Liyanage I, Walker T. Sense Publishers, Rotterdam; 2014:79–92. 10.1007/978-94-6209-752-0_6
7. Flowerdew, J., & Peacock, M. (Eds.). (2001). Research perspectives on English for academic purposes. Cambridge University Press.
8. Gupta, D. (2013), "Teaching English to Engineering Students in India", Journal of Education and Practice. **4**(11), 131-138.
9. Hassan, K. & Mostafa, K. A. (2016), "ESP and Needs Analysis: Teaching English to Engineering Students in Bangladesh", MIST Journal of Science and Technology. 4, 26-36.
10. Hassan, M. M. (2011), "English in Bangladesh as a Corporate Language: Problems and Solutions", EastWestUniversity,http://dspace.ewubd.edu/bitstream/handle/123456789/646/Mohammad_Mahmudul_Hasan. Retrieved on 26 March 2019.
11. Hossain, M.J. (2013), "ESP Needs Analysis for Engineering Students: A Learner Centered Approach", Journal of PU, Part: B, **2**(2), 16-26.
12. Huckin, T. N., & Olsen, L. A. (1991), Technical Writing and Professional Communication for Nonnative Speakers of English. McGraw-Hill International Editions, Page 3.
13. Hyland, K. (2013). Writing in the disciplines: Research evidence for specificity. Taiwan International ESP Journal, **5**(1), 5–22.
14. Imam, S. R. (2005), "English as a global language and the question of nation-building education in Bangladesh", Comparative Education, **41 (4): 471-486**. doi:10.1080/03050060500317588.
15. Khalid H. (2019), "Why are university graduates failing to meet market needs?", The Daily Star, January 14, 2019. Retrieved from https://www.thedailystar.net/opinion/education/news/why-are-university-graduatesfailing-meet-market-needs-1686997 on 21 March, 2019 at 12:17 pm.
16. Khan, M. R. (2020). Technical English Needs of Engineering Students in Bangladesh: Voices from the Stakeholders. International Journal of English Language & Translation Studies, **8**(3), 80–87.
17. Le, P. K. (2002), "Problems, Solutions and Advantages of Large Classes", Teacher's Education, September 2002, 8-11.
18. Lee, A. (2018), "Why English Matters and Why You Should Care", Retrieved 23 November 2018. https://forcemedia.org/news/2018/3/26/why-english-matters-and-why-you-should-care
19. Maniruzzaman, M. (1998), "A Socio-Psycholinguistic Study of the Interaction between Attitudes and Motivation of Undergraduates and their Proficiency in EFL", Ph.D. Thesis, University of Dhaka: Bangladesh.

20. Rahman, M., & Pandian, A. (2018). A critical investigation of English language teaching in Bangladesh: Unfulfilled expectations after two decades of communicative language teaching. English Today, 34(3), 43–49.

21. Reimer, M.J. (2002), "English and Communication Skills for the Global Engineer", Global Journal of Engineering Education, Australia. In Shrestha, R, N., Pahari, B, R., & Awasthi, J. R. (2015).

22. Shrestha, R. N., Pahari, B, R., & Awasthi, J. R. (2015), "Impact of English on the Career of Engineering Students: A Brief Overview in G(local) Context". Journal of the Institute of Engineering, 2015, **11**(1), 182-188.

23. Thaki, P. (2014), "Importance of English and Communication Skills for Technical Professionals", International Journal of Scientific Research. **3**(4), 211.

24. Ur, P. (1996), A Course in Language Teaching: Practice and Theory. Cambridge University Press.

25. Yasmin, F. (2007). English Language Teaching in Bangladesh: An Overview. Dhaka University Journal of Linguistics, **2**(3), 1–12.

26. Yin, R. K. (2014). Case study research: Design and methods (5th ed.). SAGE Publications.

27. Zaman, F. (2007), "The CRISIS for Software Professionals in Bangladesh", BASIS News & Views. 3(4), 1-3, Retrieved from https://basis.org.bd/newsletter/bc751736a42a7c1b4a9a9ebf9fc12d8c On 15 January 2019 at 2:02 pm.