



Productive Skills of English Language: Pillars of Employment Skills for Diploma Engineering Students

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Abstract

Globalised world of the 21st century is expanding the scope of employment in the technical world with its consistent inventions in every field of engineering. Keeping pace with it, the numbers of engineering colleges are also having been established in all smart cities and districts of every state in India. But it's really shocking and alarming to see the graph of unemployment of technical students rising in an abnormal manner. A solution needs to be formulated to place the educated engineering students with required skills they lack in; English language skills and very much associated to it, is Life Skills. Regional medium students with engineering qualification urgently need to develop their listening, speaking, reading and writing skills to express their technical knowledge and above all few may even expertise and be recognised in bringing technically revolutionized ideas if trained with requisite English language skills.

Keywords: Productive skills, employment, engineering, team work, Project, Seminar, Tech industry, online courses, technical knowledge, speaking skills, writing skills, industry needs, computer technology, employable, universal language, report writing

1.Introduction

The world, we live in, is a Modern technically revolutionized global world. In addition to this, with the advent of Modern Computer Technology named as the third revolution of communication composed a new chapter in human communication which has brought knowledge at our finger tips. All latest technology in the field of Engineering can be glanced at if an engineering student has better proficiency of the language skills. Within the three years of the Diploma engineering course, a student has enough scope to develop technical ideas with its prescribed syllabus of 6 no. of semesters with a competent fluency in English language. Along with the technical papers, the international language needs to be given priority for implementation of the technical ideas in workplace. The present study will have a comprehensive study on the dependence of Engineering studies on the international English language. An engineer is always in a team work which demands communication competency. In the 21st century, the workplace is multi-cultural and multi-lingual with innovations in every second throughout the globe. The exposure of an engineer to these innovations; mainly software industry, is a must for the development in engineering profession, both personal and in professional field. The research will highlight on good understanding of the engineering students in the international language. The command on speaking and writing skills can develop creative ideas of students with extensive studies on all latest technical inventions. Thus, the study will touch all those areas in which an engineer's journey can attain prosperity with the infinite skills of the universal language. The productive and receptive skills of the language are learned with a zeal and eagerness to conquer the techno-world.

2.English language enhances infinite skills of an engineering students

Engineering of 21st century is a global field; it's no more confined within any state or country. The vastness of its innovation is endless, perpetual and limitless. To gain knowledge in this field, the aspiring students need to possess a passion for creativity. This creativity can be best nurtured with the international English language. An engineering student during the course of his studies can have the best of engineering knowledge and skills with the prescribed syllabus and most importantly a carving to learn beyond syllabus. The digital age provides all facilities for an engineering student to access beyond classroom teaching. Especially, a diploma engineering student who has undertaken the financial hurdles to have the technical education to be employable. Being able to read, understand, learn the technical papers, he/she needs to possess the infinite skills of English language to represent the technical ideas. With a good flare in the English language only a student can in the best way

understand and use the technical terminologies. Nearly 90% of students from Regional medium school undertake the diploma engineering course. From the very first day of their classes in 1st semester, they develop a fear for the technical words used by the teaching faculty. The technical terms become a nightmare for them as they hardly have any idea to understand the syllabus of the technical papers. Here the need of the hour is to firstly conduct a few of Spoken English classes to make them friendly with the foreign language. Its very much required as hardly any importance is given to learn the English subject in school with a futuristic vision for higher studies after school education.

To make education productive, it's very essential to make the Diploma Engineering students friendly with the skills of English Language. The geographical area of the research is the Diploma Engineering Institutes in Bhubaneswar. The highlight is on the outcomes of the Diploma engineering students with requisite productive skills. Diploma Engineering is a professional course where projection, presentation, representation and implementation of technical ideas; both in spoken and written form, is of foremost importance as a student and later on as an engineer in workplace.

3.Productive Skills: Speaking and Writing skills in English

The sequence involved in learning a language is – Listening, Speaking, Reading and Writing (LSRW skills). Listening and Reading are Receptive Skills where as Speaking and Writing are Productive Skills. Only after proper understanding of a language, the resultant of language learning comes with Speaking and Writing. The outcome enables a person to adopt to the new language and easily expression his thoughts and ideas comfortably in the new language learnt. Thus, with the productive skills of English language an engineer can interact, guide, instruct, supervise and implement technical ideas to a team of technician in his/her team.

3.1: Speaking skills

An engineer always works in a group or team. So, it's very necessary to have a good interactive or communicative skill. Also, as workplace comprises of staff from various state or country, the medium of communication is English; as used as a link/connecting language. The pronunciation of the technical terms involved in workplace need to be clearly spoken to avoid confusion. Therefore, during the course of the studies engineering students need to develop good speaking and interactive skills to deliver technical instruction in a proper way to avoid confusion. Any confusion can result in accidents in workplace.

The research problem is that most of the teaching faculties hardly deliver their teaching in English. In technical education, English to English learning is a must to inspire and motivate the students for a

confident presentation of the technical topics and also to develop an interest to interact in English in classroom learning activities. In the use of the foreign language the teacher plays the role model for the students of his/her class. A regular teaching method in English will encourage a student to develop reading habits in English. Also, the students take interest to develop listening skills by being attentive to the pronunciation of the technical jargons by the teacher. It is to be noted that good listening enhances good speaking skill. This way good fluency brings a good change in adopting a sound and confident personality. On the other hand, poor communication skills, low confidence levels and improper body language have bad results mainly in the job race (2016, Dr.K.Suneetha Reddy). Reading and listening skills develop and improve the speaking skills of an individual in an excellent manner. The teacher may make use of regional languages in order to clear doubts in intervals for effective transmission of knowledge but English -to- English teaching can only develop employability knowledge of a student. So, a specific purpose needs to be followed for teaching method in English on a regular basis. In addition to this, Presentation on technical topics from syllabus, also Seminars, Projects works and internship project works can enhance the speaking skills in the best way during the teenage of a diploma engineering student. This way the students can be competent to meet the industry needs. It's inevitable to mention here that the English language in the technically revolutionized world, has become the language of the Age of Technology.

3.2: Writing skills

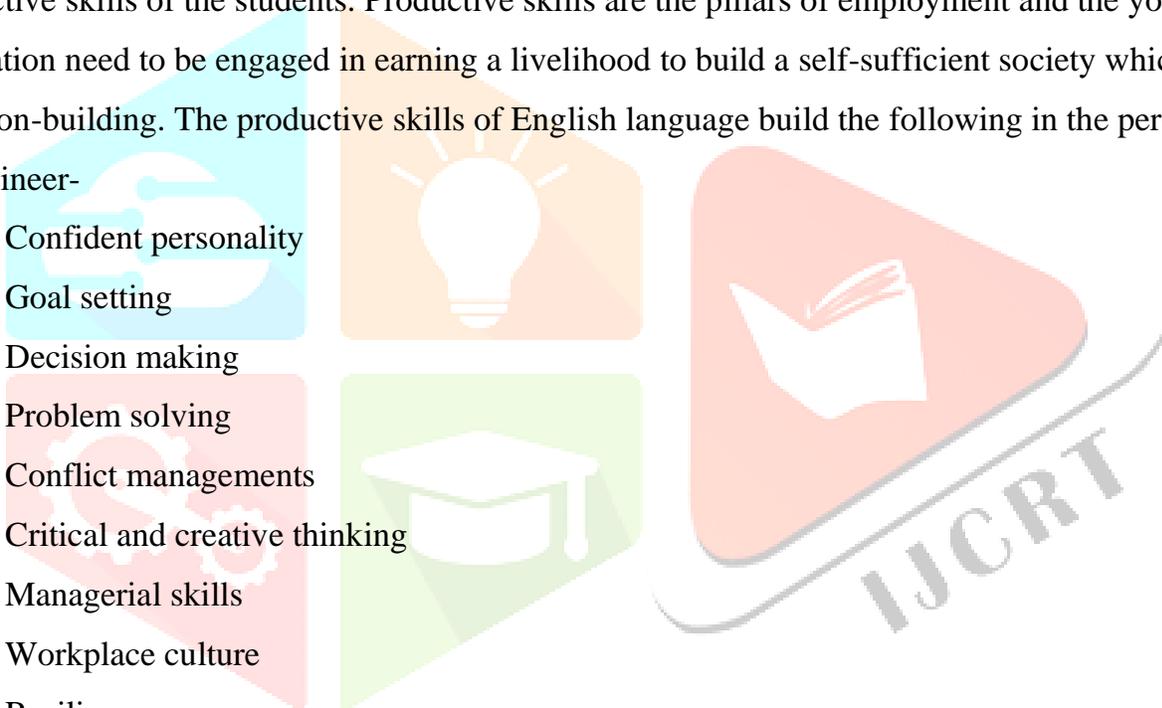
Here goes the saying - "Writing makes an Exact man ". Writing skill is dependent on reading skills of a person. It is very much essential for an engineering student to have a zeal and craziness to go beyond classroom teaching on all his technical papers. The syllabus makes him learn the concepts only, structured answers in semester exam and implementation of technical knowledge is learned with extensive studies beyond syllabus. Therefore, a comfort zone and a passion in reading habits will empower an engineering student. Reading habits of an engineer gives a deeper knowledge which makes writing easy. With reading of the prescribed books and also online materials in e-libraries, students bring a perpetual improvement in learning the technical jargons which in turn develops their writing skills. All these makes him a gem in technical writings. But unfortunately, the deterioration of learning condition of Diploma engineering students has gone beyond imagination during the pandemic season.

The learning efficiency was average in the pre-pandemic times and now its unbearable. Taking into consideration the youth population of India, a united effort is the need of the hour to improve the productive skills of the diploma engineering students. With no strength of financial condition, students undertake the diploma engineering course with an aspiration to get into job through campus drives in

their respective institutions. A good writing skill enables an engineering student to do better in academic performance. The results of semester exam depend on the quality of answering in the answer sheet. But the writing skills; as examined in their class notes, weekly exams, practice class-notes, internal answer sheets and during evaluation of semester answer sheets, is very disheartening. These notes reveal the poor reading and writing habits of engineering students. Also, the format design of different types of reports needs to be learned properly, as engineers on daily basis keep the technical and scientific analysis of assigned works in an organized manner. So, writing skill of an engineer is an integral part of his profession. Any misappropriation in scientific reports can be a fatal incident in the career of an engineer.

All kinds of activity-oriented events need to be organized in the engineering institutions to develop the productive skills of the students. Productive skills are the pillars of employment and the youth population need to be engaged in earning a livelihood to build a self-sufficient society which will lead to nation-building. The productive skills of English language build the following in the personality of an engineer-

- i. Confident personality
- ii. Goal setting
- iii. Decision making
- iv. Problem solving
- v. Conflict managements
- vi. Critical and creative thinking
- vii. Managerial skills
- viii. Workplace culture
- ix. Resilience



The need for acquisition of a good communication skills is international in nature to manage future workplace situations (2016, Dr. K. Suneetha Reddy). Thus, an engineer with a good combination of speaking and writing skill develops soft skills in an excellent manner. A strong dominance on the international language helps an engineer to possess a radiant personality. This competency encourages the engineer to meet the technical challenges in his assigned areas at the workplace.

4. Adaptability to the challenges of Tech industry

21st century is an Age of Computer Technology. An engineer of any branch needs to have access to the short-term software courses of their respective areas. Being comfortable with the international language, usage of technical jargons becomes easy. This further helps to understand and handle-

theory and design of the required project works manageable during studentship. It paves way for good technical creative ideas and a hold on technical communication. Moreover, as per the demand of the syllabus students can undertake online courses on essential software courses and earn certificates to add skills in their Curriculum Vitae.

Only with the proficiency of the universal language, an engineer will be equipped with the accurate keywords and critical thinking to search on areas of his interest to explore the abundance of the field of computer technology. Thus, the growing importance of computer has added a further boost to the universal language. With the Chat GPT and Artificial Intelligence, now it's a compulsion to start thinking, originating creative ideas in English language. The recent advancement in the integration of Information and communication Technology (ICT) (2023, Tejasvi Reddy, Rohan T) demands a good reading skill to develop good speaking and writing skills in the global language. The opportunities in software industry globally are galore for the English-speaking Indians (Vol. IV, Issue VI, June 2016, www.ilellh.com). Its relevance in the global surrounding (2021, Berlina A. Lopes and Dr. Satkala) strongly demands engineering students to be equipped with the infinite skills of English language.

5. Access to numerable job opportunities in other fields

The Productive skills of English language unlock the doors of job opportunities for engineering students. It is the language of opportunities (Vol. IV, Issue VI, June 2016, www.ijellh.com). Effective communication in both speaking and writing skills enable students to crack competitive exam of all sectors. Lack of serviceable communication skills contributes to the low profile of engineering in general public. Effective communication is now a passport for an entry to any good job. F.G. French observes that it is only through this language that we have “distilled essence of modern knowledge in all fields of human activity. Anyone who can read English can keep in touch with the world without leaving his own house (Vol. IV, Issue VI, June 2016, www.ijellh.com). “

6. Objectives:

- To know the standard of student's high school English teaching and accordingly guide each student to improve in LSRW skills.
- To encourage students to be acquainted with the technical jargons and terminology to overcome fear for the language
- To build a strong command and confidence of the students in writing different style of formats for project and seminar works

- To develop in students the structural writing of notes and answers with correct spellings and right allocation of words in sentences for better academic performance.
- To teach English language as an employability skill and create a zeal in students for presentation styles in a comfort way.
- To motivate and inspire students to have reading habits beyond classroom teachings.
- To build students with best of the productive skills to make them employable with language competence and cater to the ever-changing need of industry and software industry globally.

7. Methodology:

The geographical area of the study is the Diploma Engineering Colleges in Bhubaneswar. Secondary sources have been used to analyse the productive skills of Diploma engineering students. Five number of Diploma engineering institutes have been covered for the findings. A formal discussion with teachers and examining the internal exams hardcopy, project reports, seminar reports, internship reports reveal the reasons for overall back papers in semester exams. Unemployment of diploma engineering students is due to the poor writing skills of students. And also, the most unfortunate thing is disinterest of students to focus and learn correct writing and speaking in English. Data collected from online journals and personal interviews with faculties of technical papers and English teacher reveals the critical condition of diploma engineering education appropriately.

8. Literature Review

8.1: Berlina A. Lopes and Dr. Satkala in the Research Article - Role and importance of Communication Competence for Engineering Students states:

“The English language learning is a skill-oriented activity and thus needs a specific approach of teaching - learning methodology. Therefore, English should not be treated lightly in engineering institutes as all books (both hardcopy and softcopy) of technical papers are in English, requires presentation of technical ideas in English and semester answer sheets are to be written in English; depending upon their way of structured answers in correct spelling with proper allocation of words in the sentence, marks are awarded to students in their respective papers.”

“The success of engineering students is largely determined by their ability to communicate during their Campus Drives. Therefore, the communicative labs (Digital language labs) facilities need to be properly provided for speaking and listening skills.”

8.2: Tejasvi Reddy and Rohan T in their article – A Study to Explore the Evolution of English Language Teaching (ELT) in Engineering Education in India has explained:

“India is playing a major role in the field of software industry globally. So, the successful career of engineering students depends on having a command on language skills. By embracing technology and integrating language learning with technical education, students can better learn the usage of technical vocabulary and terminology with requisite communication skills to match to the demands of the professional areas.”

8.3:Dr.Bh.V.N. Lakshmi and P. Prasanthi in the article – Speaking Skills – a key element of employability states that –

“Advancement of technology has shifted the focus from Education to every child to Employment to every student. Job prospects in the technical field is determined by the combination of technical knowledge with its excellent presentation with good communicative skill in English. With computer revolution, engineering students need a good command in analytical thinking and communicative abilities to enroll themselves for career opportunities. An efficacy in spoken and written skill in the universal language with conversation and discussion, good presentation skills is an urgent requirement to go along with the pace of technological advancement.

Also, the article states that-

“As learning a language is a gradual process, depending upon the listening skill and interpretation ability; one can bring out the speaking skills productively. Therefore, a practical and innovative approach can be followed by English faculty by which students can enjoy practicing speaking English as a leisure activity.

8.4: Leroy R. Cox, Katie Grantham Lough in the article – The Importance of writing Skill to the Engineering Student had explained that -

“Though engineering students in their 4 years have done lot of written works in semester exam, project report and seminar report writings, but in the professional life they very badly fail to write correct spellings and structured sentences in the areas of “Specifications and Report Writing”. The most common complaints being – the graduate engineer have poor writing skills and also could not communicate well in transforming their technical knowledge in English to the technicians working under their guidance.”

8.5: Crina Herteg in the article– Developing Writing Skills to engineering Students States that – “Engineers in the professional life who are assigned as Production Engineers or Sale Engineers have to do a lot of written works for daily updates. Also, research engineers have to deal with variety technical reports, scientific reports. At this engineer with poor writing skills display hesitation in submission of the written documents. Though selected in Campus placements on basis of their academic performance and career merits, they prove to be incompetent in presenting their technical knowledge in speaking and writing skills. Therefore, from beginning of their engineering career in the first semester on basis of their standard of speaking and writing as learned in high schools, they need to be trained to improve these productive skills and also students with self-interest should develop these skills within the years of their engineering studies.”

8.6: Dr.K. Suneetha Reddy in the article – English Competency: The need of the hour for Professional Engineers states that- “With a sound technical background,an engineer need to interpret the technical facts in the international language so that all technical person in every nook and corner of the world can understand. There has been a lot of comments on engineers engaged in scientific works in professional life that- the engineer incapable to prepare reports is not a scientist but a technician, not an engineer, but a mechanic.”

“There is an urgency to provide sufficient English language classes for development of these productive skills of the universal language. Also, students with good command over the language can easily have better academic performance as all technical papers are in English. The Digital language labs need to be utilized by students for practice as it will enhance employability skills of students.”

8.7:Vijay Kumar and K.V. Divya in the article - Empowering Engineers Through Speaking states – “The dynamic work atmosphere of the IT revolution and globalization prefers engineers with command in speaking skills as it unveil their efficiency and power of speech. But unfortunately, most of the engineers in workplace are diffident and shy. They display unwillingness to participate in discussions and to respond to queries.”

9.Findings:

A focused study of the literature reviews and verification of the internal answer sheets and other written materials of students mirror the helplessness of students and their inability in better academic performances and poor presentation skills.

There is an urgent need for English courses for teachers to encourage them to improve their teaching of technical papers in English language. Another area to be given importance is Paper Publications by technical faculties. This practice will surely bring a desired result in the teaching methodology in English which will undoubtedly develop the spoken and writing skills of the students. Thus, the overall resultant of the career of diploma engineering students can be brought to a standard level. The employment curve can rise and also fulfil the demands of industry needs.

With a good interactive skill in the foreign language, engineering students will show eagerness to face interviews in placement drives. Further, speaking and writing skills will help them in active participation in literary activities to showcase their presentation skills.

10. Conclusions:

Recognizing the importance of English language skills for employability (2023, Tejasvi Reddy and Rohan T), a lot of initiative has been taken up by Indian government regarding ELT. The productive skills of English being pillars of employability skills can bring an iron-willed confidence in engineering students to reach the zenith in their career. With a proficiency in the international language, there will be an yearning in students to learn about the latest technologies which in turn will play a vital role in career- building of young technocrats.

Work Cited:

- 1) www.shodhganga.com - <https://shodhganga.inflibnet.ac.in/simple-search>
- 2) Developing Writing Skills to Engineering Students
https://www.researchgate.net/publication/311705009_Developing_Writing_Skills_to_Engineering_Students
- 3) Empowering Engineers Through Speaking – Vijay Kumar and K.V.Divya
<https://www.nveo.org/index.php/journal/article/view/2271>
- 4) English language Teaching for first year Engineering Students Through media with Special focus on Newspaper
<http://hdl.handle.net/10603/231440>
- 5) Huckin Thomas N and A Olsen, Lealie.
“Technical writing and Professional Communication for Nonnative Speakers of English,” McGraw Hill International Editions, 1991
- 6) Tickoo, M.L. Teaching and learning English New Delhi : Orient longman Pvt.Ltd, 2003

7) Leroy R. Cox, Katie Grantham Lough in the article – The Importance of writing Skill to the Engineering Student

<https://sites.asee.org/se/wp-content/uploads/sites/56/2021/05/2008ASEESE105.pdf>

8) Harmer, J.(2007). The practice of English Language teaching(4th ed.). London: Longman

9) Heaton, J.B.(2003). Writing English Language Test, London: Longman

10) The Practice of English Language Productive Skills' Continuous Assessment

<https://www.scribd.com/document/520120040/The-Practice-of-English-Language-Productive-Skills-Continuous>

11) English in India today: A Journey from Foreign to Native by Berlina Lopes and Dr. Satkala -

<https://uijrt.com/paper/english-india-today-journey-foreign-native>

12) A Study to Explore the Evolution of English Language Teaching (ELT) in Engineering Education in India by Tejasvi Reddy and Rohan T- <https://www.ijsr.net/archive/v12i11/SR231027235820.pdf>

13) Speaking Skills – a key element of employability by Dr. Bh.V.N. Lakshmi and P. Prasanthi

https://www.academia.edu/6180919/Speaking_skills_a_key_element_of_employability

14) Need of LSRW Skills for the Students of Science and Technology -

https://www.academia.edu/33605051/Need_of_LSRW_Skills_for_the_Students_of_Science_and_Technology

15) English Competency: The need of the hour for Professional Engineers by Dr.K. Suneetha Reddy -

<http://www.puneresearch.com/media/data/issues/568e7eb4e83f8.pdf>