



Communicative Competence in English of Polytechnic Students in Maharashtra

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Abstract:

Communicative competence is important for an engineer to carry out his/her professional practice. The State of Maharashtra has always been at the forefront of education, technology, agricultural and industrial development at the national level. The majority of students enrolled in engineering and technology courses in the State come from non-English speaking backgrounds and they need to improve their communicative competence. The intended research will examine how engineers use the language, the nature of communication, such as verbal and visual, and the tools they use to communicate. The research will examine the two elements on the learning of language and visualization, which are both critical for the professional performance of tasks.

This paper provides researchers with comprehensive information concerning the status and quality of existing English and communication skills courses in Maharashtra. In this paper we have concluded with important suggestions regarding the design of proper curricula of communication skills and their advantages in engineering diploma courses.

KEYWORDS: Communicative competence, communication skills, Polytechnic Students, curricula.

1.INTRODUCTION

There is a necessity of communicative competence for engineers in the current globalised environment. The English language has become a major medium for communication across borders globally. A deficiency may result in barriers for diploma holder and graduates' personal and professional development. The exponential growth of technical education in India in general, and in the State of Maharashtra in particular, has raised many concerns regarding quality. It has been observed that diploma holder students face several problems at the time of recruitment, such as the lack of knowledge of interview techniques, insufficient written and oral communication skills, expression of knowledge gained and among other aspects. Despite gaining higher scores during their studies, students often encounter problems during industry selection procedures. Because of this impact, the curriculum of the communication skills subject, which is primarily offered to first-year students in engineering diploma and undergraduate courses, can be considered as being the most important and essential course in this changing environment of technical

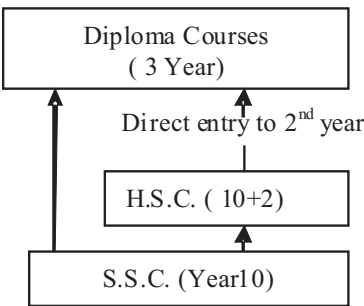
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education. Communicative competence is one's capacity to use language effectively and appropriately. The six criteria for assessing communicative competence include: adaptability, conversational-involvement, conversational-management, empathy, effectiveness, and appropriateness.

II.STRUCTURE OF POLYTECHNIC EDUCATION IN MAHARASHTRA

India is a pioneer in technical education; this is especially so for the state of Maharashtra. Diploma in engineering and technology courses produces middle level technicians.Fig.1 gives a brief outline of the Structure of polytechnic education in Maharashtra and the entry requirements for the various levels from the Secondary School Certificate (SSC) and Higher Secondary School Certificate (HSC). Outline of the Structure of polytechnic Education in Maharashtra is shown in the fig.1.



Fig,1. Outline of the Structure of polytechnic Education in Maharashtra

I.COURSE STRUCTURES

Engineering and technology education in India, and so in the State of Maharashtra, is generally imparted on three different levels: Trade certificate courses and vocational technical courses for skilled workers, which are carried out at Industrial Training Institutes (ITI), higher secondary schools and junior level technical colleges, Diplomas in engineering and technology courses to produce middle level technicians, which are undertaken at engineering polytechnics, Undergraduate/postgraduate engineering and technology education, which are carried out at the degree and postgraduate levels at engineering institutes, Regional Engineering Colleges (REC), Indian Institutes of Technologies (IITs) and Indian Institutes of Science (IISc).

The engineering and technology education course structure in the state of Maharashtra has been somewhat similar in nature as compared to other states. However, the entry requirements for both, diploma and undergraduate engineering courses, is uniform all over the country. The engineering diploma courses in the State are of three years duration, and taken after 10 years of formal education. The eligibility criteria require that the candidate must have passed his/her Secondary School Certificate (SSC) examination with subjects of general science, elementary mathematics or algebra and geometry, as well as English. Students of the first year engineering diploma course have common curricula with uniform teaching and examination patterns all over the State. Diploma holders tend to be middle level technocrats and are mostly suitable on the production floor or in the maintenance department, mostly at a supervisory level.

II.CURRICULUM CONTENTS FOR DIPLOMA

The first year curriculum of diploma courses in engineering and technology includes the subject of Communication skills. The subject of communication skills has been allotted two theory periods and two practical periods per week. The Students have been already exposed to the Language Skills pertaining to English, leading to a better understanding of English and use of grammar, developing a base for the language and communicative competence. The objectives of this subject are:

- 1) Understand and use the basic concepts of communication and principles of effective communication in an organized set up and social context.
- 2) Give a positive feedback in various situations, to use appropriate body language and to avoid barriers for effective communication.
- 3) Write the various types of letters, reports and office drafting with the appropriate format.



Learning Structure prescribed in the curriculum includes:

Application: To enable the students to communicate effectively by using the concept of communication, appropriate non-verbal and writing skills.

Procedures: Techniques of communicating in organizational and social context, principles governing the appropriate use of non-verbal skills and techniques of effective writing.

Principles: Principle of comprehending the basics of communication, principles of appropriation and contextualization of the use of body language, principle of drafting, coherent, logical and simple sentences, concept of formal, informal, verbal, nonverbal types of communication, concept of body language and designing the message.

Facts: Concept of formal, informal, verbal, nonverbal types of communication, theory of non-verbal skills (Body language), formats of letters, reports and office drafting.
The contents of the communication skills subject with regard to theory are as follows:

- Introduction to communication.
- Types of communication.
- Principles of Effective Communication.
- Non verbal- graphic communication.
- Formal written skills.

The contents of the communication skills subject with regard to practical and assignments are detailed below.

1. Communication Cycle (With the Help of Diagram) + any two communication situations to be represented with the help of Communication Cycle. (Use Pictures)
2. Communication Situations (List of 5 Communication situations stating the type of communication viz; Vertical, Horizontal, Diagonal.
3. Barriers That Hinder a Particular Communication Situation. (State the type of barrier, and how to overcome them).
4. Writing articles (two) in keeping with the parameters of developing effective messages. (Collect samples from newspapers, articles, Internet and paste them in the assignment.)
5. Business Letters:
 - a) Job Application with Resume.
 - b) Enquiry Letter.
 - c) Order Letter.
 - d) Complaint Letter.
6. Non-Verbal Communication.
 - a) Body Language: Five Illustrations of appropriate use of Body Language used on the part of student in formal and Informal setups.
 - b) Graphic Language: Five illustrations of the use of Signs, Symbols, colours, maps, graphs, charts in day to day life.
7. Presentation Skills: Select topic (current issues) and ask students to give a class presentation as per the principles of effective communication and paste these topics as an assignment in the file.
8. Non-Verbal Codes: Kinesics, Physical Appearance, Haptics. (Collect five pictures per group of five students on the above mentioned non-verbal codes, analyze and discuss them in the class. Ask the students to paste these pictures along with explanation in their individual files.

III.OBSERVATIONS AND FINDINGS

Communication competences have been identified as multidimensional and as such it becomes crucial to classify how they will be assessed in the students' work. Furthermore, the particular communication skills that are required in a profession are usually poorly defined. Individual feedback is important for improving the education of students. However, there needs to be prudent identification and clear operational definitions of the rating dimensions so that the same standards are applied to all students: consistency and accuracy. It is imperative that the student understands what is expected and what will be assessed ahead of time to facilitate education, learning and the generation of desirable characteristics. This will deliver formative (feedback) and summative (evaluation) assessment. A number of observations and findings have



been made; these are listed below.

- The increasing competition for diploma and undergraduate engineering admissions and the strategic failure of vocational and technical courses are the main reasons for the burden of placement and the increasing unemployment rate of diploma holders.
- In the present technical education structure and workforce scenario, the position of diploma holders in the employment market is sandwiched between skilled workers and engineering graduates.
- The heterogeneous group of students is taught in the same class of engineering diploma courses as higher secondary certificate holders and has the option to carry over, or seek exemption from, some of the subjects.
- Students with English as the main medium of instruction for their high school education are enrolled in the same group as those from a non- English medium of instruction.
- It has been observed that diploma holders face several challenges in the employment market because of low self-confidence and communicative competence. The reasons for lack of communicative competence are as follows:
 - Poor English language proficiency;
 - Lack of oral and written communication skills;
 - Lack of proper representation techniques.
- Most diploma students (66%) lack confidence when facing interviews during the selection procedure. The reason cited by students and faculty members is the lack of skills and attributes considered essential for personality development.
- It has been observed that the majority of students enrolled in first year diploma engineering courses in the State have a Marathi speaking background, which is part of their secondary education other than English.
- Out of a total content of an engineering curriculum of first year diploma courses in the State, English and communication skills contributes less than 10%.
- Since communication skills have been introduced only for first year students, and that based only on theoretical assessments, students lack a sufficient level of oral communication skills required after graduation.

The incorporation of language and communication improvement courses is an important element of continuous learning, and will ultimately contribute to the process of lifelong learning. This should in turn facilitate advancements in engineering and engineering education through streamlining fundamental communication skills. Furthermore, this research will seek to establish its own model.

IV. SUGGESTIONS

Communicative competence is an essential component of an engineer's education, and establishing a subject in this field should be considered a fundamental component of engineering education. However, more can still be done to advance students' acquisition of communication skills within engineering and technology curricula. There are several recommendations that can be drawn from this study; these are elaborated on below.

- It is recommended that the communication skills curriculum for engineering diploma courses in Maharashtra State be improved by emphasizing international aspects. This can be achieved with greater collaborative and networking programmes with renowned educational institutes worldwide.
- Written communication skills involve a more active, rather than passive, learning method. Writing can enhance critical thinking and problem-solving skills, as well as serve to identify and confront personal misconceptions. The engineering student faces greater difficulties in written as well as oral communication. Ineffective and poor written communication in engineering workplaces was found to lead to misinterpretation, inefficiency and time wastage, thereby adversely affecting problem resolution. Such miscommunication was then found to contribute to mistrust and aggression, as well as appear unprofessional and be unproductive. This indicates that poor communicators will have trouble in the workplace, potentially contributing to problems rather than solving them. Solutions to this include integrating elements in the curriculum that focus on written communication skills, such as engineering reports, technical writing, essays, reflective journals, peer review, etc. Also, the type of written communication skills imparted to students needs to be carefully monitored.
- The importance placed on oral communication skills by employers has been echoed internationally for a decade or more and across disciplines. Knowledge and technical know-how are clearly important, but these must be presented with an excellent standard of communication skills, particularly oral. Oral communication and presentation skills are considered one of the best career enhancers and to be the single biggest factor in determining a student's career success or failure. Experiential approaches to oral communication tend to yield better results, measures, and can include presentations, peer review, role-play,



video, plus the use of current presentation software. Written assessment of oral communication skills cannot properly identify the level of students' oral communication competency acquisition. Therefore, oral performance(s) by students needs to be integrated in the marking structure of such tests, particularly in the communications subject. Given this, teachers need to be educated to properly assess oral communication skills, and this may require a short refresher course for teachers. Oral communication skills, in particular, are required when students attend employer interviews during their final years.

- A heterogeneous group of students is taught in the same class, which is one of the factors influencing students' learning abilities. Additional optional classes may be required for those students from non-English speaking backgrounds, so that they may have the same opportunities to learn as their more proficient fellow students within the first year of the curriculum, particularly in the communications subject.

- Communication skills training are essential for any engineering programme. As such, it is vital to get the right mix of skills that are required by industry. The current mix evidenced by students' skills does not seem to fit directly with industry requirements. Competent engineers with excellent grades have difficulty in presenting themselves and their achievements in interview situations. Given this, the communication competences being taught and those in demands should be compared, including feedback from Indian graduates working in industry.

- The units within the course structures have been identified and marked for a curriculum renewal that will promote both oral and written communication skills in a setting that simulates possible scenarios in the workplace.

- The Indian technical universities, institutions should adopt more jobs and object-oriented engineering education curricula. Curricula should be linked with industries, research organizations to meet the present and future challenges of rapid technological changes of industrial development in India. In this investigation efforts will be made to assess the communicative competence of first year polytechnic students and to develop soft skills model to enhance their communicative competence.

V.CONCLUSION

It is important for the engineering curriculum to include a provision, within its course structures, that allows students to acquire essential communication skills. In this paper, we have listed the key features of the communication skills subject for diploma engineering students in the Indian State of Maharashtra. In order to maintain relevance in today's world, Maharashtra State Board of Technical Education need to reflect industry (and social) demands by passing on to diploma engineers the required skills. Communicative competence needs should be identified and they are incorporated into engineering subjects. Integrating these skills within subject modules, especially in the marking structure, can thereby achieve the right skills combination. Nevertheless, the inclusion of communication subjects in engineering education should be viewed as a vital component of an engineers' education.

REFERENCES

1. Patil, A.S. and Pudlowski, Z.J., The emerging issues for engineering diploma holders: a time to adopt new strategies for diploma courses. Proc. 4th Baltic Region Seminar on Engg. Educ., Copenhagen, Denmark, 109-112 (2000).
2. Patil, A.S., Engineering and technical education in India – current issues and trends. Proc. 1st Asia- Pacific Forum on Engg. and Technology Educ., Melbourne, Australia, 172-174 (1997).
3. Patil, A.S. and Pudlowski, Z.J., The globalization of Indian economy: need for internationalization of higher technical education. Proc. 5th UICEE Annual Conf. on Engg. Educ., Chennai, India, 159-162 (2002).
4. Patil, A.S. and Pudlowski, Z.J., Modelling of the internationalisation process of engineering education between developed and developing nations – a new millennium approach with an Indian perspective. Proc. 1st Russian Seminar on Engg Educ., Tomsk, Russia, 55-57 (2000).
5. Director of Technical Education, <http://www.dte.org.in>
6. <http://www.esakal.com>
7. <http://www.msbt.com>
8. AICTE: Model Curriculum, <http://www.aicte.ernet.in/aicte/ee3.htm>
9. Pathak, B.V., Communication Skill: Communication and Grammar. Pune: Nirali Prakashan (2000).
10. Patil, A.S. and Pudlowski, Z.J., The need-based curriculum design for applied physics in engineering diploma courses: a case study of Maharashtra State in India. Proc. 3rd UICEE Annual Conf. on Engg. Educ., Hobart, Australia, 301-303 (2000).
11. Patil, A.S. and Rochford, K., Problems related to an understanding of applied science subjects of first year engineering diploma students in Maharashtra State, India. Proc. Global Congress on Engg. Educ., Kraków, Poland, 177-180 (1998).
12. Patil, A.S., Investigating the benefits of the independent study technique approach with the inclusion of a new



- subject in diploma courses in the first year: a case study. Proc. 3rd Asia-Pacific Forum on Engg. and Technology Educ., Changhua, Taiwan, 176-179 (2001).
13. Riemer, M.J., Integrating oral communication skills in engineering education. Proc. 5th Baltic Region Seminar on Engg. Educ., Gdynia, Poland, 148-151 (2001).
14. Riemer, M.J., Integrating written communication skills in engineering education. Proc. 6th Baltic Region Seminar on Engg. Educ., Wismar/Warnemünde, 187-190 (2002).
15. Riemer, M.J., English and communication skills for the global engineer. Global J. of Engg. Educ., 6, 1, 91-100 (2002).
16. Riemer, M.J., Integrating emotional intelligence into engineering education. World Trans. on Engg. and Technology Educ., 2, 2, 189-194 (2003).
17. McGregor, H. and McGregor, C., Documentation in the engineering workplace. Proc. 8th AAEE Annual Conv. and Conf., Sydney, Australia, 176-180 (1996).
18. Krasniewski, A., Teaching technical communication – unexpected experience. Proc. Inter Conf. on Engg. Educ., Oslo, Norway, 6B3-14- 6B3-19 (2001).
19. Keane, A. and Gibson, I.S., Communication trends in engineering firms: implications for undergraduate engineering courses. Inter. J. of Engg. Educ., 15, 2, 115-121 (1999).
20. Rochford, K., Baxen, J. and Inal, A., Studentorganised research conferences as a medium for research capacity building. Global J. of Engg. Educ., 8, 2 (2004).
21. Polack-Wahl, J.A., It is time to stand up and communicate. Proc. 30th ASEE/IEEE Frontiers in Educ. Conf., Kansas City, USA, F1G-16- F1G-21 (2000).