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## **From Classroom to Career: An ESP-Based Needs Analysis for Enhancing the Employability of Diploma Engineering Students**

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**Abstract:** This study conducts a needs analysis to investigate the role of English communication skills in the employability of diploma engineering students in Telangana, India. In a competitive job market, technical proficiency alone is insufficient; industry demands strong communicative competence. However, a significant gap persists between the skills imparted by polytechnic institutions and the expectations of employers. This mixed-methods study uses the framework of English for Specific Purposes (ESP) to analyse this gap. Quantitative data were collected via a questionnaire administered to 150 final-year students, and qualitative data were gathered through semi-structured interviews with 15 faculty members and 10 industry recruiters. The findings reveal that while students recognize the importance of English, their proficiency, particularly in productive skills like speaking, is critically low. The analysis identifies a pronounced urban-rural divide in student confidence and a curriculum that lacks practical, industry-aligned communicative training. The study concludes that a systematic integration of an ESP-based curriculum is essential to bridge the gap between the classroom and the workplace, thereby enhancing graduate employability.

**Keywords:** English for Specific Purposes (ESP), Employability, Needs Analysis, Diploma Engineering Students, Communicative Competence

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### **1. Introduction**

In the globalized landscape of the 21st century, English has solidified its status as the lingua franca of technology, commerce, and higher education. For engineering graduates in India, proficiency in English is no longer a supplementary asset but a core competency, essential for securing employment and navigating a professional career. Numerous reports have highlighted a

persistent disconnect between the technical qualifications of engineering graduates and the communicative skills demanded by the industry, rendering a large percentage of them unemployable. This "employability gap" is frequently attributed to deficiencies in spoken and written English, which prevent graduates from effectively articulating their technical knowledge.

This challenge is particularly acute for students enrolled in polytechnic diploma programs. These students often hail from rural or semi-urban backgrounds where English exposure is minimal and instruction follows traditional grammar-translation methods, which are ill-suited for developing communicative fluency. This creates a significant urban-rural divide, placing students from vernacular-medium schooling at a distinct disadvantage in the competitive job market, regardless of their technical acumen.

The theoretical foundation for this study is provided by English for Specific Purposes (ESP). Rather than a distinct methodology, ESP is best understood as a pedagogical approach that tailors language content and instructional methods to the precise requirements of a specific group of learners. This learner-centred philosophy is famously articulated by Hutchinson and Waters, who state that in ESP, "all decisions as to content and method are based on the learner's reason for learning". For engineering students, this necessitates a shift away from 'General English' towards a curriculum focused on the communicative tasks central to their profession, such as composing technical reports, contributing to team meetings, and delivering project presentations. The foundational step in creating such a curriculum is a needs analysis, which serves to identify the gap between the students' current language abilities (their lacks) and the linguistic demands of their target professional environment (their needs).

While the importance of communication skills for engineering graduates in India is well-documented, the bulk of existing research has concentrated on students in four-year university degree programs. A clear research gap exists concerning the specific linguistic challenges and pedagogical needs of diploma-level engineering students. This study aims to fill this gap by conducting a systematic needs analysis for this cohort within the specific socio-linguistic context of Telangana.

This research is guided by the following questions:

1. What are the self-perceived English language needs and proficiency levels of final-year diploma engineering students in Telangana?
2. What are the English language expectations of industry recruiters for entry-level diploma holders?

3. To what extent does the current polytechnic curriculum meet the communicative needs of students and the industry?
4. What are the key pedagogical implications for designing an ESP-based intervention to bridge the identified skills gap?

## **2. Methodology**

### **2.1 Research Design**

This study employed a mixed-methods research design, combining quantitative and qualitative approaches to conduct a comprehensive needs analysis. This design allows for the triangulation of data, providing a more robust and nuanced understanding of the issue. The quantitative component, a student questionnaire, was used to identify broad trends in self-perceived proficiency and challenges. The qualitative component, consisting of semi-structured interviews, provided deeper contextual insights into the perspectives of faculty and industry professionals.

### **2.2 Population and Sampling**

The target population included three key stakeholder groups in Telangana: final-year diploma engineering students, English language faculty in polytechnic colleges, and industry recruiters. A stratified random sampling method was used to ensure the sample was representative of different institutional types (government, private-aided, and private-unaided) and geographical locations (urban and rural). This approach was chosen to capture the diversity of experiences and challenges across the state's polytechnic system.

The final sample comprised:

- **150 final-year diploma engineering students** from core disciplines (Mechanical, Electrical, Civil, and Computer Engineering).
- **15 English faculty members** from the selected institutions.
- **10 industry recruiters and HR professionals** with direct experience in hiring diploma engineers.

### **2.3 Data Collection Instruments**

- **Student Questionnaire:** A structured questionnaire was developed and administered to the 150 student participants. The instrument included Likert-scale questions to gather quantitative data on self-assessed proficiency in the four language skills (LSRW), frequency of English use, exposure to communicative language activities, and specific challenges encountered during placement interviews.

- **Semi-Structured Interviews:** In-depth, semi-structured interviews were conducted with faculty members and industry recruiters. The faculty interview protocol focused on teaching methodologies, curriculum constraints, resource availability (e.g., language labs), and perceptions of student motivation. The recruiter interview protocol was designed to elicit industry expectations regarding communication skills, common shortcomings observed in candidates, and the role of English proficiency in hiring decisions.

## 2.4 Data Analysis

A two-pronged approach was employed for data analysis. For the quantitative component, data from the student questionnaires were subjected to descriptive statistical analysis, utilizing frequency distributions and mean scores to discern patterns. For the qualitative component, interview transcripts were analysed thematically. This involved a rigorous process that included verbatim transcription, thorough familiarization with the text, the generation of initial codes, and the systematic identification and definition of emergent themes.

## 2.5 Ethical Considerations

This research adhered to rigorous ethical standards. All individuals were fully briefed on the study's aims and were guaranteed the confidentiality and anonymity of their contributions. Participation was based on the voluntary and informed consent of each individual, which was secured prior to the commencement of data collection.

## 3. Results

This section presents the findings derived from the quantitative analysis of the student questionnaire and the thematic analysis of the interviews with faculty and recruiters.

### 3.1 Quantitative Findings: Student Perspectives

#### 3.1.1 Self-Assessment of English Proficiency

Students' self-assessment revealed a significant disparity between their receptive skills (Reading, Listening) and productive skills (Speaking, Writing). As shown in Table 1, a combined 60% of students rated their speaking skills as "Average" or "Poor," identifying it as their area of greatest weakness.

**Table 1: Student Self-Assessment of English Proficiency (LSRW Skills)**

| Skill Area | Excellent | Good | Average | Poor |
|------------|-----------|------|---------|------|
| Speaking   | 12%       | 28%  | 40%     | 20%  |
| Listening  | 15%       | 35%  | 38%     | 12%  |
| Reading    | 20%       | 42%  | 30%     | 8%   |
| Writing    | 18%       | 36%  | 34%     | 12%  |

### 3.1.2 Exposure to Communicative Language Training

The data indicated a significant lack of practical, skills-based training. As detailed in Table 2, participation in core communicative activities was low, with fewer than one-third of students having engaged in group discussions (28%) and less than a fifth having experienced mock interviews (18%).

**Table 2: Participation in Communicative English Activities**

| Activity                   | Participated |
|----------------------------|--------------|
| Group Discussion           | 28%          |
| Presentations in English   | 34%          |
| Language Lab sessions      | 22%          |
| Mock Interviews (internal) | 18%          |
| Debates, elocution etc.    | 20%          |

### 3.1.3 Placement-Related Challenges

The impact of these skill gaps on employability was evident in students' experiences during recruitment. A substantial majority reported facing communication-related difficulties in job interviews (Table 3). Nervousness (72%) and difficulty articulating answers in English (68%) were

the most frequently cited problems. Critically, among students who had attended interviews, nearly half (48%) reported being rejected during the HR round specifically because of their English communication skills.

**Table 3: Placement-Related Challenges Faced by Students**

| Challenge Area                       | Students Affected (%)         |
|--------------------------------------|-------------------------------|
| Difficulty answering in English      | 68%                           |
| Unable to express technical concepts | 55%                           |
| Nervousness during interviews        | 72%                           |
| Rejected in HR rounds due to English | 48% (among those interviewed) |

### 3.1.4 The Urban-Rural Divide

A stark disparity in confidence and proficiency was observed between students from urban and rural backgrounds. As shown in Table 4, urban students were more than twice as likely to describe themselves as fluent and confident in English compared to their rural and semi-urban counterparts, who predominantly reported limited use.

**Table 4: English Confidence Levels by Student Background**

| Student Background | Fluent/Confident (%) | Limited Use (%) |
|--------------------|----------------------|-----------------|
| Urban              | 54%                  | 28%             |
| Rural/Semi-Urban   | 22%                  | 65%             |

### 3.2 Qualitative Findings: Faculty and Recruiter Perspectives

Thematic analysis of the interview data yielded four primary themes that corroborate and expand upon the quantitative findings.

- **Theme 1: Curriculum-Industry Misalignment.** Both faculty and recruiters identified a significant disconnect between the academic curriculum and industry needs. A recruiter from

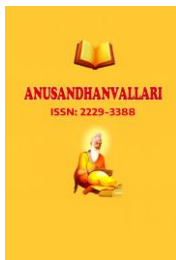
a manufacturing firm stated, "We don't need them to analyse poetry. We need them to write a clear, concise incident report and speak up in a team meeting. The curriculum doesn't seem to teach that." Faculty members echoed this, noting that the syllabus was often too theoretical and left little room for practical, job-oriented communication training.

- **Theme 2: The Primacy of Oral Communication as a "Filter".** Recruiters unanimously emphasized that oral communication skills function as a critical filter in the hiring process. "Technical skills get them to the interview," one HR manager explained, "but communication skills get them the job. If a candidate cannot articulate their final year project, we assume they cannot function in a team environment." This theme directly aligns with the student data showing high rejection rates in HR rounds.
- **Theme 3: Pedagogical and Resource Constraints.** Faculty members consistently cited systemic constraints that hinder effective language teaching. These included overcrowded classrooms, a rigid syllabus focused on summative examinations, and underutilized resources. One lecturer noted, "We have a language lab, but it's mostly used for listening exercises from a CD or a listening file. There is no structured software or time allocated for interactive speaking practice."
- **Theme 4: The Confidence Gap in Rural Students.** All stakeholder groups commented on the pronounced disadvantage faced by students from rural backgrounds. A faculty member observed, "The rural students are often just as bright technically, but they suffer from a crippling lack of confidence. They remain silent in class and are terrified of making mistakes in English." This observation provides a qualitative explanation for the quantitative disparity seen in Table 4.

#### 4. Discussion

The evidence gathered from this needs analysis indicates a critical shortcoming: the prevailing pedagogical model for English instruction within Telangana's polytechnic colleges is failing to prepare students for the communicative realities of the contemporary workplace. The discussion synthesizes the quantitative and qualitative data through the lens of the ESP framework to explore the key dimensions of this skills gap.

The study's central finding is the critical deficiency in productive communication skills, particularly speaking. The fact that 60% of students rate their speaking ability as average or poor, combined with recruiters' emphasis on oral fluency as a primary hiring "filter," highlights a fundamental misalignment. This resonates with national-level studies which have consistently



identified poor spoken English as a leading cause of unemployability among technical graduates. From an ESP perspective, this is a failure to meet the most immediate and high-stakes need of the learners: to perform successfully in a job interview.

Furthermore, the stark urban-rural divide in confidence and proficiency (54% vs. 22%) points to a systemic issue of educational inequity. This gap is not merely a reflection of individual aptitude but a consequence of disparate educational backgrounds, limited exposure to English outside the classroom, and a peer environment that discourages its use. The result is a cycle of disadvantage where students from rural areas, despite possessing the requisite technical knowledge, are systematically filtered out of competitive employment opportunities.

The data also reveal a significant disconnect between the content of curriculum and the target situation needs. The low participation in practical activities like mock interviews (18%) and group discussions (28%), alongside faculty reports of a rigid, theory-heavy syllabus, indicates a pedagogical approach that treats English as a subject to be studied rather than a skill to be acquired.

This is the antithesis of the ESP approach, which posits that language should be taught in contexts that are directly relevant to the learners' professional discipline. The absence of integrated, task-based learning means students are not being trained in the specific genres of communication such as technical descriptions, progress reports, and team briefings that are central to an engineering career.

Finally, the study highlights a paradox between students' awareness of their needs and the system's ability to meet them. The high percentage of students reporting placement-related anxiety (72%) and rejection due to poor English (48%) demonstrates that they are acutely aware of the problem. However, this awareness is not matched by institutional provision of effective, needs-based instruction. This points to a systemic failure that requires intervention at the level of curriculum design, teacher training, and institutional policy.

## **5. Conclusion**

This study confirms that for diploma engineering students in Telangana, English communication skills are not a "soft" peripheral ability but a critical determinant of employability. The needs analysis identified a profound gap between students' current proficiency, particularly in oral communication, and the explicit demands of the industry. This gap is exacerbated by a curriculum misaligned with workplace needs and a significant urban-rural disparity in student confidence and exposure to the language.

### 5.1 Implications for Pedagogy and Policy

The findings have direct and actionable implications for stakeholders in technical education. A fundamental shift from a "General English" paradigm to an ESP framework is required. This entails:

- **Curriculum Reform:** The English syllabus must be redesigned based on a detailed analysis of the target communicative tasks in the engineering workplace. This means integrating modules on technical report writing, presentation skills, group discussion strategies, and professional email correspondence.
- **Pedagogical Shift:** A move towards Communicative Language Teaching (CLT) and task-based learning is essential. Institutions must mandate and resource practical activities, transforming the language classroom into a space for active skill development.
- **Faculty Development:** English language faculty require professional development in ESP and CLT methodologies to equip them to teach language through the content of their students' technical disciplines.
- **Targeted Interventions:** To address the urban-rural divide, institutions should implement foundational bridge courses for incoming students from rural backgrounds and foster peer-mentoring programs to build a supportive environment for language practice.

### 5.2 Limitations and Directions for Future Research

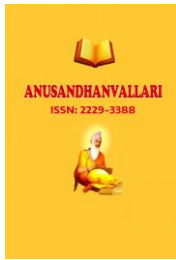
It is important to acknowledge certain limitations of this research. A primary constraint is the reliance on self-reported data for student proficiency, which introduces the potential for subjective bias. Additionally, as the sample was drawn exclusively from Telangana, the findings may not be fully generalizable to the wider Indian context. Future research could build on these findings through several avenues. A longitudinal study tracking a cohort of students through an ESP-based curriculum could provide empirical evidence of its effectiveness. Action research projects, where faculty design and implement specific ESP interventions in their classrooms, would also contribute valuable, context-specific knowledge to the field.

By embracing an ESP approach, polytechnic institutions can move beyond simply teaching English as a subject and begin to strategically equip their students with the communicative competence they need to transition successfully from the classroom to a career.

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