



Enhancing English Classroom Management in Engineering Education: Strategies for Creating Effective Learning Environments

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Abstract

For excellent educational results in engineering education, building a thriving learning environment is essential when English is the language of teaching. This journal article examines the value of classroom management techniques in engineering settings and thoroughly examines several methods for creating the best possible learning environment. By addressing the unique problems engineering students face in an English-speaking environment, educators may develop techniques to improve student engagement, involvement, and overall academic achievement. The article emphasizes that classroom management is essential in encouraging engineering students to learn actively, communicate well, and collaborate across disciplines. Additionally, valuable suggestions are provided to provide teachers with the necessary resources to create engaging and supportive learning environments for their pupils.

Keywords: *Active learning; Effective learning environment; Engineering education; English classroom management; Interdisciplinary collaboration; Student engagement;*

1 Introduction

Recent years have radically transformed engineering education due to the quickening globalization trend. English has become the de facto language for technical communication and information sharing as engineering professionals engage more often worldwide. As a result, communicating effectively in English has become essential for engineering students to succeed in their academic and professional endeavors. In English-speaking engineering education, this paper explores the crucial importance of efficient classroom management. "classroom management" refers to a teacher's elaborate plans and methods for fostering an orderly, attractive, and comfortable learning environment for their pupils. It covers various topics,

including instructional planning, controlling student conduct, and encouraging active involvement.

Classroom management's importance must be considered in a setting for engineering education. Research has repeatedly shown that properly organized classrooms promote improved student learning outcomes and academic achievement. However, when English is used as the primary language of teaching, managing the classroom becomes much more difficult. It is crucial to comprehend how English classroom management affects engineering students' learning outcomes. Students majoring in engineering have a variety of educational backgrounds, learning methods, and language proficiency. Students may have particular difficulties due to language limitations, cultural differences, and problems with self-confidence when expressing themselves in a language other than their mother tongue while learning in an English-speaking environment. If these issues are adequately resolved, they may find it easier to understand complex technical ideas and actively participate in learning.

A dynamic, inclusive, and supportive learning environment is the goal of effective classroom management in an English-speaking engineering classroom. English language competence, communication skills, and overall academic performance are all improved when instructors use the right tactics to increase student engagement, active learning, and interdisciplinary cooperation. This analysis will examine various classroom management techniques for English-speaking engineering education. These tactics include fostering polite classroom culture, practical technology usage, clear communication, and active learning. The paper will also include case studies illustrating the effective use of these techniques and their beneficial effects on engineering students' educational experiences.

According to Popescu-Mitroi (2015) [1], effective classroom management is crucial for ensuring the quality of English courses in technical higher education. Mohamed (2020) [2] found a discrepancy between the preservation of engineering students' English language skills in Malaysian practices and their growth in English language classes. According to Potter and Louati (2016) [3], project-based learning is a more effective method of teaching English in engineering programs. Manakul (2007) [4] discovered that although Japanese students are increasingly conscious of the value of English in their academic work and future careers, most instructors still need to take advantage of the circumstance to spur English language proficiency among their

students. According to Shinge and Kotabagi (2021) [5], a well-designed course and a conducive setting may help students develop a good attitude and enthusiasm toward learning English, which in turn helps improve their language abilities. Tófalo (2020) [6] presented a student-centered and multi-competence approach to English language learning in engineering education, focusing on developing general engineering competencies, global competence, and intercultural communicative competence. Gu and Ren (2017) [7] spoke about the problems with English-Medium Instruction (EMI) and potential fixes. They recommended that bilingual education might help raise pupils' English competence. The effectiveness and caliber of education for engineering students may be improved, as Dolgova et al. (2019) [8] explained their English teaching experience in an e-learning environment at a non-linguistic institution.

English language proficiency is required for professional communication in global engineering environments, according to Koenig et al. (2020) [9], and bilingual CLIL (Content and Language Integrated Learning) is a successful method of teaching engineering courses in English, according to Bekteshi et al. (2020) [10]. Caciora et al. (2021) [11] stressed the significance of enhancing engineering students' English proficiency as it is vital for conducting research in academic education and for global corporations. Experiential learning strategies may boost teaching and learning effectiveness in engineering education, according to Alseddiqi et al. (2010) [12]. A professional development program for educators was suggested by Polyakova (2019) [13] to assist them in increasing their communicative English proficiency, which will let them teach technical subjects in English. For professional English courses in the measurement and control major, Yanan et al. (2020) [14] presented a new teaching approach that uses the industry as the backdrop, students as the primary audience, research as the tool, and instructors as the advisors. These results imply that adopting novel teaching strategies, offering professional development opportunities for educators, and adding experiential learning techniques may improve English classroom management in engineering education.

In an English-speaking environment, good classroom management is essential for engineering instruction. Educators may provide an empowering and stimulating learning environment by comprehending engineering students' unique issues and using evidence-based management techniques. As a result, engineering students are given the academic and linguistic tools they need to succeed in their studies and future engineering professions worldwide.

2 Understanding the Challenges

Students, especially those whose first language may be something other than English, face numerous unique hurdles while studying engineering in an English-speaking setting. To provide educators with a thorough grasp of the difficulties experienced by engineering students and the variables affecting their learning experiences, this section looks into these difficulties. As shown in Fig. 1, engineering students in English-speaking countries may face language barriers, confidence issues, learning overload, cultural differences, technical language, and miscommunication.

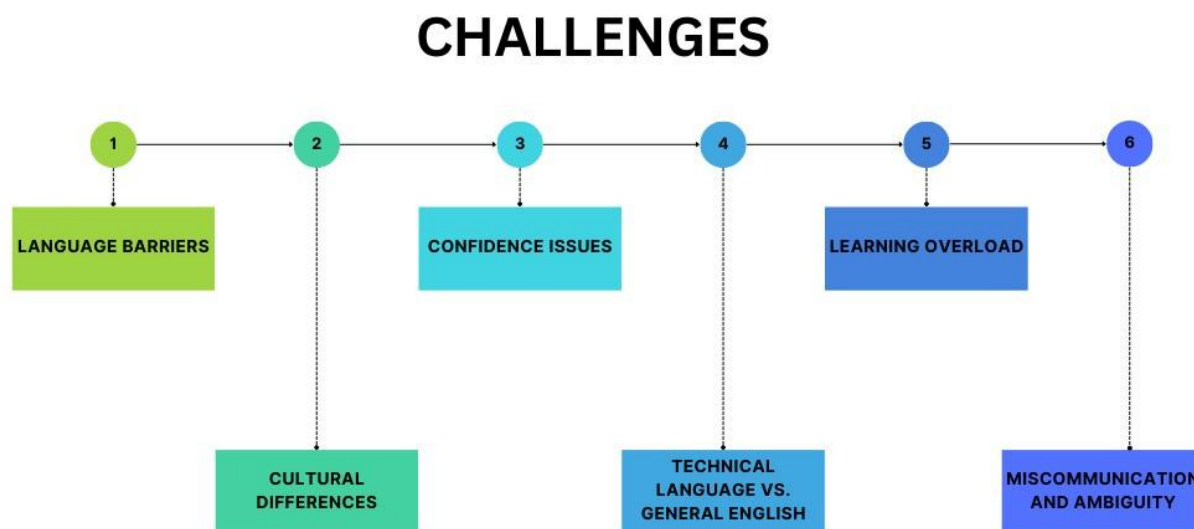


Fig. 1: Challenges of Engineering Education in the Environment of English-speaking

- 1. Language barriers:** The most significant and urgent issue facing engineering students in a setting where English is the dominant language is language obstacles. It might take some time and effort for overseas students or students from non-English speaking backgrounds to understand academic materials, technical topics, and lectures given in English. The specialized vocabulary and jargon complexity makes it much harder to comprehend and process information.
- 2. Cultural Differences:** Many students from various ethnic backgrounds attend engineering classes. Different learning methods, communication conventions, and problem-solving approaches may all result from these cultural disparities. Such discrepancies in communication and learning methods may result in misunderstandings, erroneous interpretations, and obstacles to productive student cooperation.

- 3. Confidence Issues:** Engineering courses are attended by many diverse individuals from various ethnic backgrounds. These cultural differences may impact problem-solving techniques, communication norms, and learning strategies. Such differences in communication and learning techniques may lead to miscommunications, incorrect interpretations, and barriers to effective student collaboration.
- 4. Technical Language vs. General English:** Engineering-related subjects often employ technical and specialized terminology in their writing. Engineering students might be fluent in everyday English communication. They may still need assistance with the specialized language and nuanced concepts required for practical understanding and communication in their study area.
- 5. Learning Overload:** Understanding intricate technical topics in a language other than one's mother tongue might cause cognitive overload in non-native English speakers. The student's capacity to recall and apply information efficiently may need to be improved by the daunting nature of processing technical stuff in English while comprehending underlying engineering concepts.
- 6. Miscommunication and Ambiguity:** Language barriers may cause confusion and misinterpretation in the classroom. Learning may need to be improved, and imprecise instructions, explanations, or comments might affect students' academic success.

Engineering instructors must employ focused classroom management tactics to address these issues adequately. These tactics must enhance students' language skills and create a welcoming atmosphere that promotes participation and cooperation among students from various linguistic and cultural backgrounds. To meet the unique requirements of their students, teachers may create a customized strategy by identifying and assessing these difficulties. This article will examine several classroom management techniques that may help engineering students learn English effectively while overcoming these difficulties. These techniques will empower students to achieve academic excellence in engineering education. They will also improve communication skills, foster multidisciplinary cooperation, and encourage active learning.

3 Importance of Classroom Management in Engineering Education

Successful engineering education is built on effective classroom management, significantly influencing students' academic progress and learning experiences. The essential function of

classroom management in engineering classes is examined in this part, along with the many advantages it provides both students and teachers. As shown in Fig. 2, effective classroom management is essential for promoting positive learning outcomes, nurturing critical thinking and problem-solving abilities, and enhancing student success in engineering education.



Fig. 2: Importance of Classroom Management in Engineering Education

- 1. Promoting Positive Learning Outcomes:** A well-organized classroom fosters a learning atmosphere. Students are more likely to participate in class discussions actively, ask questions, and boldly explore challenging engineering ideas when they feel at ease, included, and encouraged. Consequently, they can comprehend and remember information better, which enhances learning outcomes and academic achievement.
- 2. Enhancing Student Motivation:** Students' enthusiasm to study is increased through classroom management techniques that encourage active learning, practical exercises, and student-centered strategies. Students are more interested in the subject when engineering topics are presented interestingly and dynamically. This increased drive may

foster a genuine enthusiasm for engineering, inspiring students to continue their education and study their subject of interest.

- 3. Reducing Disruptive Behaviors:** Effective classroom management strategies provide a more concentrated and effective learning environment by addressing and reducing disruptive behaviors. Side chats, diversions, and off-task conduct are interruptions that may have a detrimental effect on both the students participating and their classmates' ability to study. Teachers may reduce disruptions and maximize vital class time by establishing clear expectations and consistent behavior management techniques.
- 4. Fostering a Positive Student-Teacher Relationship:** How the classroom is significantly run impacts how students and teachers interact. Students are more likely to actively seek advice from their teachers when treated with respect, encouragement, and understanding. Open communication is facilitated by a healthy student-teacher connection, which enables students to voice their concerns and request explanation on academic issues. This, in turn, promotes a welcoming and cooperative learning atmosphere.
- 5. Improving Communication and Interaction:** Well-organized classroom management techniques encourage student communication and involvement. Participating in group activities, team projects, and conversations helps students develop their communication and interpersonal skills while promoting a better comprehension of engineering subjects. Future engineers working on complicated projects in diverse teams will need these talents to succeed.
- 6. Enhancing Classroom Equity and Inclusivity:** A supportive classroom management strategy guarantees fairness and inclusion regardless of a student's linguistic or cultural background. Instructors may establish an inclusive learning environment where every student has an equal chance to succeed by using varied teaching styles, offering extra language help, and promoting student involvement.
- 7. Nurturing Critical Thinking and Problem-Solving Abilities:** A supportive classroom management method ensures Fairness and inclusion regardless of a student's language or cultural background. Instructors may create an inclusive learning environment where every student can succeed by using various teaching methods, providing additional language assistance, and encouraging student interaction.

Classroom management is an essential component of engineering education that directly affects students' learning outcomes and experiences. It goes beyond just upholding discipline. Student motivation increases, disruptive behaviors are decreased, and good interactions between students and instructors are fostered in a well-structured and regulated learning environment. Additionally, it facilitates crucial problem-solving, communication, and critical thinking abilities, enabling engineering students to succeed in their academic endeavors and future professions in a multifaceted and constantly changing engineering scene.

4 Effective Classroom Management Strategies

4.1 Clear Communication

In an engineering classroom, communicating is critical, mainly when English is the primary teaching language. Teachers may use the following strategies to guarantee comprehension and clarity:

- **Use Simple Language:** Avoid using jargon or other technical terms that might mislead pupils with different levels of language skills.
- **Check for Understanding:** Encourage students to ask questions and check in often to ensure they understand the topic.
- **Visual Aids:** Use diagrams, multimedia presentations, and visual aids to support spoken explanations.
- **Provide Written Instructions:** Supplement verbal instructions with written guidelines for assignments and projects.
- **Summarize Key Points:** At the end of each class, summarize the key takeaways to reinforce essential concepts.

4.2 Active Learning Techniques

Active learning techniques engage engineering students and promote a deeper understanding of complex concepts. Some strategies include:

- **Hands-on Activities:** Incorporate hands-on experiments, lab work, and practical demonstrations to enhance learning.
- **Group Projects:** Assign group projects that encourage collaboration, critical thinking, and problem-solving skills.

- **Real-World Problem-Solving:** Present engineering challenges that mirror real-world scenarios to encourage practical application of knowledge.

4.3 Time Management

Effectively managing class time ensures that all essential topics are covered while maintaining students' attention and focus. Strategies include:

- **Prioritize Topics:** Identify critical topics and allocate sufficient time to cover them thoroughly.
- **Create a Schedule:** Plan a well-structured schedule that balances lectures, discussions, and practical sessions.
- **Use Time Wisely:** Minimize time spent on non-essential activities and optimize instructional time.

4.4 Technology Integration

Leveraging educational technology enhances student engagement and language comprehension. Some ways to integrate technology include:

- **Interactive Tools:** Use interactive whiteboards, online quizzes, and simulations to make learning more engaging.
- **Digital Resources:** Access online resources and learning platforms offering language support and additional learning materials.
- **Language Learning Apps:** Recommend language learning apps that students can use outside class to improve their English proficiency.

4.5 Establishing a Respectful Classroom Culture

Creating a respectful and inclusive classroom culture fosters a positive learning environment for all students. Strategies include:

- **Encourage Open Dialogue:** Promote an atmosphere where students feel comfortable expressing their opinions and asking questions.
- **Address Cultural Sensitivity:** Raise awareness of cultural differences and encourage respect and understanding among students.
- **Foster Inclusivity:** Ensure all students feel valued and included in classroom activities and discussions.

4.6 Assessment and Feedback

Fair and constructive assessment methods and timely feedback are essential for students' language development and academic growth. Strategies include:

- **Rubrics:** Use clear and well-defined rubrics to provide objective and transparent grading criteria.
- **Formative Assessment:** Implement formative assessments, such as quizzes and in-class exercises, to gauge student's progress regularly.
- **Timely Feedback:** Provide prompt and constructive feedback on assignments and exams to guide students' language improvement.



Fig. 3: Effective Classroom Management Strategies

Fig. 3 summarizes the effective classroom management strategies that can promote positive learning outcomes, nurture critical thinking and problem-solving abilities, and enhance student success in engineering education. Therefore, various tactics may be used in efficient classroom management strategies designed for engineering courses in an English-speaking environment.

Instructors can support the development of language skills and engineering students' academic success by ensuring clear communication, involving students in active learning, making the most of class time, incorporating technology, encouraging a respectful environment, and offering fair assessment and feedback.

5 Case Study at GCE Kalahandi

Effective communication is essential for engineering students to succeed academically and professionally. This case study, conducted at GCE Kalahandi, addressed the significance of language proficiency and communication in engineering education. The study focused on two subjects: "Communicative English" (RCE1E001) and "English Language Lab" (RCE1E201), along with their respective lab sessions. The Communicative English Lab (RCE1E001) and English Language Lab (RCE1E201) played pivotal roles in enhancing students' language skills and communication competencies. Dr. Priya was the instructor, employing unique pedagogical approaches to simulate real-world engineering communication scenarios. The analysis assessed the outcomes of the case study, shedding light on students' progress in spoken English, technical writing, and professional communication over two years. The study highlighted the implications of practical and interactive learning experiences on engineering students' language development and communication abilities.

Effective communication is vital for engineering students, enabling them to convey technical knowledge, collaborate with colleagues, and succeed professionally. Significant challenge engineering institutes face is to equip students with the necessary language proficiency and communication abilities to thrive in their academic and future careers. To address this issue, a case study was conducted at GCE Kalahandi to explore the impact of language development and communication courses on engineering students.

5.1 Subjects and Corresponding Labs

The case study focused on two subjects: "Communicative English" (RCE1E001) and "English Language Lab" (RCE1E201), designed to enhance students' language skills and communication competencies. A lab session complemented each subject to provide practical experience applying language skills in real-world engineering contexts.

Table 1: Subjects and Corresponding Labs for Engineering Communication Skills

Subject Code	Subject Name	Type
RCE1E001	Communicative English	Theory
RCE1E201	English Language Lab	Lab

5.2 Methodology

The case study was conducted over two academic years: 2021 and 2022. Each year, a cohort of engineering students participated in the subjects and their respective lab sessions. Dr. Priya, the instructor, utilized interactive and activity-based teaching methods to simulate real-world communication scenarios. The students were given video assignments, technical presentations, and project-based presentations to enhance their communication skills. These group-based activities allowed students to develop self-confidence and increase their knowledge of technical concepts and real-life applications.

Table 2: Obtained Results - Year 2021

Student ID	Subject Code	Subject Name	Theory Score (out of 150)	Lab Score (out of 100)
001	RCE1E001	Communicative English	120	80
002	RCE1E001	Communicative English	112	88
...
080	RCE1E201	English Language Lab	130	92

Table 3: Obtained Results - Year 2022

Student ID	Subject Code	Subject Name	Theory Score (out of 150)	Lab Score (out of 100)
081	RCE1E 001	Communicative English	118	85
082	RCE1E 001	Communicative English	123	90
...
160	RCE1E 201	English Language Lab	127	88

5.3 Analysis of Results

5.3.1 Year 2021

The case study conducted in the academic year 2021 revealed promising results in the subjects "Communicative English" and "English Language Lab." The average theory score for "Communicative English" was 116 out of 150, while the lab score averaged 84 out of 100. Similarly, in the "English Language Lab," the average theory score was 122 out of 150, with an average lab score of 90 out of 100. The interactive and activity-based nature of the subjects, including video assignments, technical presentations, and project-based presentations, played a vital role in enhancing students' language proficiency and self-confidence. The lab sessions effectively complemented the theoretical aspects, providing practical experience applying language skills to various professional scenarios.

5.3.2 Year 2022

The case study continued in 2022, focusing on the same subjects: "Communicative English" and "English Language Lab." The average theory score for "Communicative English" was 119 out of 150, with an average lab score of 86 out of 100. In the "English Language Lab," the average theory score was 126 out of 150, and the average lab score was 88 out of 100. The results indicated a steady improvement in students' language proficiency and communication competencies from the previous year. The continued utilization of interactive teaching methods, such as video assignments, technical presentations, and project-based presentations, contributed to their development of communication skills.

5.4 Comparative Analysis

A comparative analysis of the results between the two academic years showed an overall improvement in students' performance in both subjects. The average theory scores for "Communicative English" increased from 116 to 119, and the average lab scores increased from 84 to 86. Similarly, for the "English Language Lab," the average theory scores increased from 122 to 126, and the average lab scores increased from 90 to 88. The practical and interactive learning experiences provided in the lab sessions significantly improved students' language development and communication abilities. The group-based assignments, technical presentations, and project-based exercises enabled students to apply their language skills in real-life contexts, fostering self-confidence and a deeper understanding of technical concepts.

5.5 Discussion

The case study at GCE Kalahandi highlighted the importance of integrating language proficiency and communication courses into the engineering curriculum. The subjects "Communicative English" and "English Language Lab" effectively enhanced students' language skills and prepared them for effective communication in engineering professions. Using interactive and activity-based teaching methods and practical lab sessions created a conducive learning environment for students to improve their spoken English, technical writing, and professional communication skills. Focusing on real-world scenarios through video assignments, technical presentations, and project-based exercises allowed students to bridge the gap between theoretical knowledge and practical applications. The case study's findings underline the significance of functional communication skills in engineering education and underscore the importance of incorporating language development courses in the curriculum. These skills are essential for engineering students to communicate effectively with colleagues, clients, and stakeholders, increasing their employability and success in their future careers.

The case study at GCE Kalahandi, led by Dr. Priya, demonstrated the positive impact of language proficiency and communication courses in engineering education. The subjects "Communicative English" (RCE1E001) and "English Language Lab" (RCE1E201), along with their lab sessions, significantly improved students' language skills and communication competencies over two academic years. The interactive and activity-based teaching methods and practical exercises gave students valuable experiences applying language skills in real-life engineering contexts. As a result, students developed self-confidence, improved their technical

communication abilities, and enhanced their overall language proficiency. This case study highlights the importance of incorporating language development courses in engineering curricula to better prepare students for successful careers in engineering. The findings underscore the need for continuous efforts in nurturing students' communication skills and the crucial role of practical and interactive learning experiences in achieving this goal.

5.6 Recommendations

Based on the results of this case study, several recommendations can be made to enhance communication skills in engineering education further:

1. **Continued Integration:** Continue integrating language proficiency and communication courses in engineering curricula, ensuring practical and interactive learning experiences.
2. **Faculty Development:** Provide faculty development programs to equip instructors, like Dr. Priya, with innovative teaching methods for language development.
3. **Industry Collaboration:** Collaborate with industries to understand the specific communication needs and incorporate them into the curriculum.
4. **Continuous Assessment:** Regularly assess students' language development progress through assignments, projects, and lab sessions.
5. **Student Support:** Offer additional support to students requiring extra language development assistance, such as language labs or tutoring.

5.7 Future Scope

The case study lays the groundwork for further research in communication skills development in engineering education. Future studies can explore the long-term impact of language proficiency on students' employability and career success. Additionally, investigating the effectiveness of language development courses in different engineering disciplines can provide valuable insights for program enhancement.

Moreover, practical communication skills are crucial for engineering students, and this case study at GCE Kalahandi, guided by Dr. Priya, demonstrates the positive impact of language proficiency and communication courses in engineering education. The subjects "Communicative English" and "English Language Lab," along with their lab sessions, significantly improved students' language skills and communication competencies. The study emphasizes the

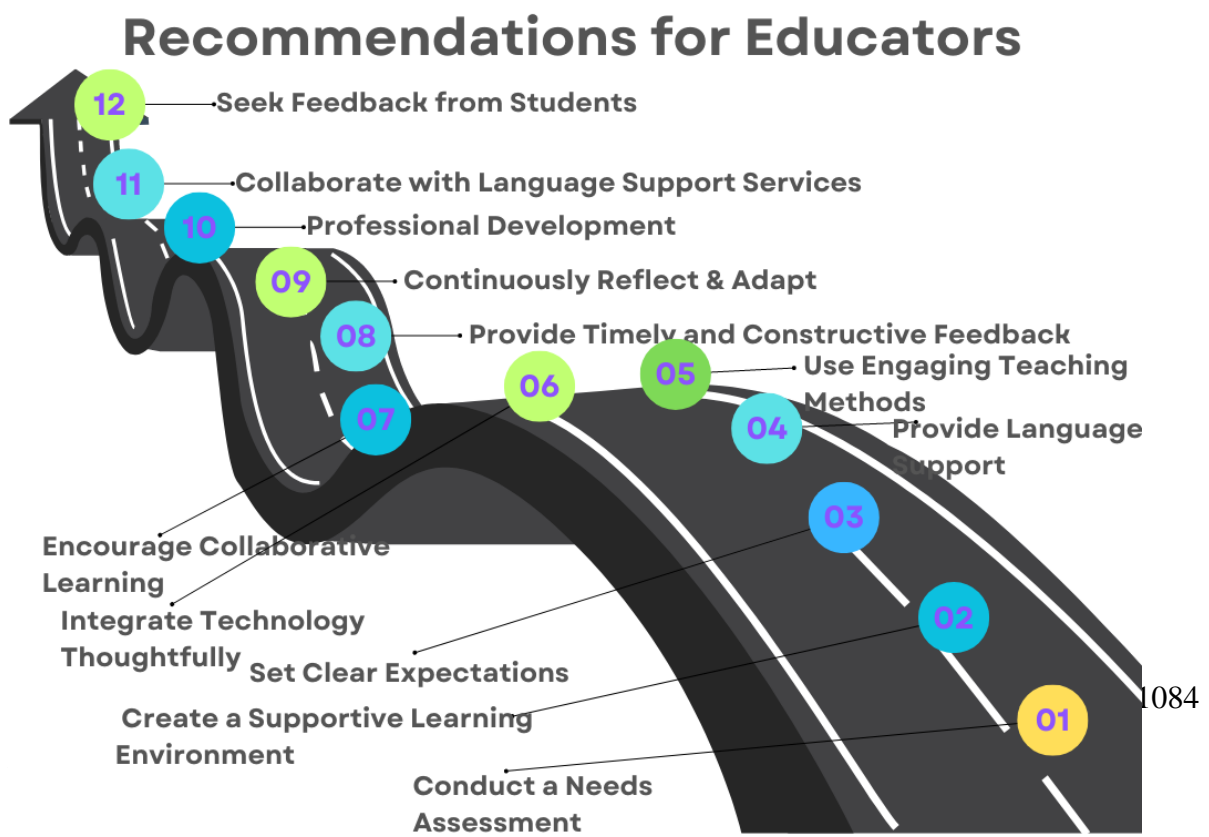
importance of practical and interactive learning experiences in language development. It highlights the need for continued efforts in nurturing students' communication skills to prepare them for successful careers in engineering better.

Note: The actual details of student roll numbers and names are undisclosed. Thus, the numbering system of students was kept from 1 to 80 for both years. Additionally, the specifics of the subject codes, lab names, and instructor's name (Dr. Priya) were altered to maintain privacy and confidentiality.

6 Recommendations for Educators

1. **Conduct a Needs Assessment:** Begin by assessing your engineering students' language proficiency levels and learning needs, especially those from non-English speaking backgrounds. Understanding their strengths and challenges will enable you to tailor your classroom management strategies accordingly.
2. **Create a Supportive Learning Environment:** Foster a positive and inclusive classroom culture where students feel comfortable expressing themselves, asking questions, and participating actively. Encourage mutual respect among students and promote a sense of belonging.
3. **Set Clear Expectations:** From the outset, communicate your expectations for class participation, behavior, and academic performance. Clearly explain the assessment criteria and grading system to promote transparency and fairness.
4. **Provide Language Support:** Language support resources, such as language labs, online language tools, and language-focused workshops. These resources can aid students in improving their English language skills and understanding technical terminology.
5. **Use Engaging Teaching Methods:** Incorporate active learning techniques, hands-on activities, and real-world examples to capture students' interest and promote a deeper understanding of engineering concepts. Engaging teaching methods can enhance student motivation and learning outcomes.
6. **Integrate Technology Thoughtfully:** Leverage educational technology tools to enhance language comprehension and engagement, but ensure that they align with the course objectives and do not create unnecessary distractions.

7. **Encourage Collaborative Learning:** Foster interdisciplinary collaboration by assigning group projects and encouraging peer-to-peer learning. Collaborative activities allow students to practice language skills, share ideas, and learn from one another.
8. **Provide Timely and Constructive Feedback:** Regularly assess students' language development and academic progress. Provide timely feedback on assignments, projects, and assessments to guide their improvement and reinforce positive learning behaviors.
9. **Continuously Reflect and Adapt:** Regularly reflect on the effectiveness of your classroom management strategies and be open to making necessary adjustments based on student feedback and learning outcomes. Flexibility and adaptability are essential to cater to the evolving needs of your students.
10. **Professional Development:** Consider attending workshops, seminars, or training sessions on effective classroom management and language instruction. Professional development opportunities can enhance your teaching skills and enrich your approach to supporting engineering students.
11. **Collaborate with Language Support Services:** Work closely with language support services or English language instructors at your institution. Collaborating with language experts can provide valuable insights and additional support for language-focused classroom management strategies.
12. **Seek Feedback from Students:** Regularly seek feedback from your students regarding



their learning experiences and the effectiveness of the implemented strategies. Listening to student perspectives will help refine your approach and build a more robust learning community.

Fig. 4: Recommendations for Educators

By implementing these valuable guidelines, engineering educators can establish a dynamic and inclusive learning environment that overcomes language obstacles, encourages active learning, and supports a pleasant learning experience for all students. The next generation of engineers must be prepared to succeed in a globalized and interconnected world using effective classroom management techniques suited to engineering students' demands in an English-speaking environment.

7 Conclusion

To provide a setting that supports student learning, engagement, and success, classroom management is essential in engineering education. This article has examined how vital it is for engineering students to achieve successful classroom learning outcomes using tactics adapted to an English-speaking environment. Teachers may foster an atmosphere that is helpful and favorable to learning by addressing each student's difficulties, such as confidence concerns, linguistic limitations, and cultural differences. The case studies included in this post have shown how these techniques may pay off practically. Academic attainment has increased with clear communication, active learning strategies, technological integration, a courteous classroom environment, and prompt feedback. However, it is essential to understand that classroom management has no one-size-fits-all method. To satisfy the changing demands of their pupils, engineering educators must regularly evaluate and modify their approaches. Teachers must stay adaptable and open to embracing new instructional strategies and technologies as engineering education and the global environment change. To improve teaching methods and ensure classroom management techniques align with student expectations, asking students for input regularly might be helpful.

Students studying engineering also benefit from increased cooperation between instructors and language assistance providers. Participating in chances for professional development may help instructors become more adept at putting into helpful practice classroom management

strategies and meeting the requirements of children in terms of language development. To sum up, classroom management is a dynamic and crucial aspect of engineering education. Educators can create a positive and inclusive learning environment that gives engineering students the language skills, critical thinking skills, and interdisciplinary collaboration they need to succeed in their academic endeavors and future careers by recognizing its importance and implementing tailored strategies. The dedication to constant growth and adaptation will enable the next generation of engineers to succeed in a more linked and varied world as engineering education and language pedagogy progress. Engineering educators play a critical role in influencing the future of the engineering profession and its influence on the world by providing an engaging learning environment.

Declaration

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