

Nurturing the English Language and Communicative Competence of the Engineering Graduates through Collaborative Learning Techniques

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Abstract:

Teaching English language and communication skills to the engineering graduates and making them industry ready is really a challenging task to the present engineering educators. The first step of English teachers towards teaching language skills to the engineering graduates is, to know the learning style the students. Some of the students learn individually, and most of the students learn better when they work in groups. English language and communication skills of the students can be enhanced more effectively by conducting collaborative learning activities in the English classroom. This paper throws light on collaborative learning strategies and types of grouping methods. It highlights the importance of implementing collaborative learning activities in the English classroom and the positive results observed in student's learning. Finally, it suggests some pedagogical inferences to the English teachers for better implementation of collaborative learning activities.

Keywords: English language and communication skills, Collaborative learning, grouping methods, advantages.

Introduction:

Effective English language and communication skills are indispensable for every engineering graduate to cope with the cut-throat competitive world and get progressive results in both academic and professional lives. As Reimer MJ (2002) states: "Communication skills are crucial for an engineer who desires to accomplish his/her professional practice in the global areas. Engineering communication skills basically establish many primary elements such as the fluency in the English language and the basics of communication (P.1)". The duty of imparting these skills along with the other soft skills is on the shoulders of the present day language

teachers. The traditional teaching methods which are teacher-centered are no more successful in creating interest in teaching and learning processes. As the millennial learners have different learning styles, perceptions, and interests towards learning, the modern day language teachers need to adopt student-centered teaching methods to create interest and provide a hands-on learning experience to the students. Collaborative learning is a wonderful approach that can be implemented by English teachers to enhance the language skills of students. English Language and communication skills can be imparted quickly through the interactive learning activities among the students compare to traditional teaching approaches. As these activities create a wide range of opportunities to the slow learners to interact in English with active students and share their knowledge of English and communicate better and groom together.

Collaborative learning Approach:

Collaborative learning creates a wonderful learning environment for the engineering graduates to work in groups, share their ideas, experiences, knowledge of language skills with each other. According to Gerlach, "Collaborative learning is based on the idea that learning is a naturally social act in which the participants talk among themselves (Gerlach, 1994). It is through the talk that learning occurs." The collaborative learning approach can be implemented in a 50-60 minute English class in different ways, like role plays, question and answer sessions, debates, group discussion, and presentations. As Smith and MacGregor state, "In collaborative classrooms, the note-taking /teaching/listening/ process may not disappear completely, but it goes hand in hand with other practices that are based on students' discussion and active work with the course material." The main objective of introducing collaborative learning activities in the English classroom is replacing teacher-centered classroom to student-centered classroom for making teaching and learning processes more effective and result oriented.

Collaborative grouping methods

Collaborative activities are very helpful in nurturing the English language skills of engineering students. Students learn more effectively in group activities compare to individual activity. When they participate in group activities they observe others, imitate and try to cope with others. It is very essential for a teacher to decide what type of group activity is to be conducted and what type of group should be formed. There are homogeneous and heterogeneous groups that can be selected by a teacher to conduct a collaborative learning activity. These two types of grouping have their own advantages and drawbacks.

Homogeneous grouping: Homogeneous groups are formed with the students of same genders, capabilities, social and emotional levels, attributes, experiences, and intelligence.

Advantages:

1. The students in this grouping can quickly comprehend their verbal and non-verbal communications and share their common experiences.
2. It helps them avoid misunderstandings, arguments during the activity.
3. This grouping helps them think together and speed up their work towards completing the task.
4. Students have good cooperation among themselves.
5. This group work improves the strategic planning abilities in students.
6. Better performance is shown by students.
7. Students get very good work satisfaction when they work together.

Drawbacks:

1. The grouping may not help slow learners in competing with the active groups.
2. The teacher may not get the expected result from the students if the group has all the slow learners.
3. Less scope for creative thinking.
4. Students may not develop diversified skills as everyone thinks in the same way.

Heterogeneous grouping:

Heterogeneous groups include a combination of different genders, ages, intelligence, races, and cultures that offer a varied range of opinions and life experiences.

Advantages:

1. Slow learners can get a chance of working with active students and learn new things.
2. A competitive spirit can be developed among the students.
3. Recognition for active students in the group gives more satisfaction.
4. Scope for active learners to exhibit their leadership skills.
5. Creative thinking increases among students.
6. Teaching and learning go hand in hand during the activity.
7. Students learn to play different roles as leaders, team players, motivators etc.

Drawbacks:

1. Sometimes slow learners may not cope with the active students.
2. Active students may dominate the slow learners.
3. Active students are much responsible for completing the task and slow learners remain passive.
4. Chances of misunderstandings among the group members.

Collaborative learning techniques**1. Jigsaw Technique:**

This technique is one of the best collaborative learning techniques used in English language classrooms. It was introduced by Elliot Aronson in early 1970s. This technique creates a platform for the students to learn knowledge from their peer members. In

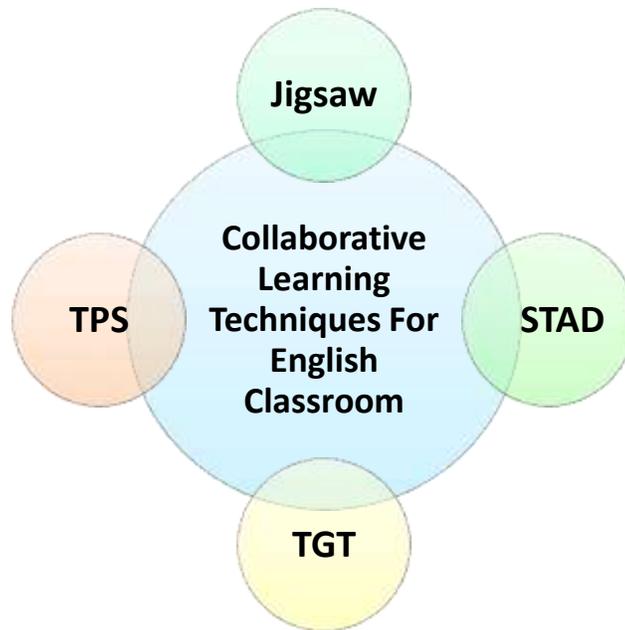
this activity, the students are given a material or information which is divided into different sections. Every student has to take care of the given section to him. The students who receive the same type of section will form a group and discuss on the section of the material. After the discussion, they go back to their original group and explain about the received section to their group members.

Classroom Activity: Jigsaw

The topic of the Activity: 'Reading and narrating a story'

Objectives:

- To enhance verbal efficiency.
- To improvise syntax and compelling delivery.
- To improve creativity and imagination skills.



- To enhance the ability to speak in front of a large group.
- To develop the ability to distinguish between multiple meanings of words in a given context.

The Strategy of conducting the activity:

All the students are divided into 7 groups (8 in each home group). These groups include a heterogeneous type of students. All the members of every home group are allocated a responsibility: as a motivator, team leader, speaker, and illustrator. All the students will be given a print copy of a section of a story individually in their home group. The students who are given the same section of a story have to join the members of other group and discuss on the received section of the story, explain, share ideas, meanings of vocabulary. After the discussion, the students have to get back to their home group and explain their part of the story to the rest of the team members. Finally, all the home groups have to narrate the complete story on the stage in front of the audience. The group which narrates the story well will be declared as the winners.

Evaluation during the story narration:

Performance evaluation of the students during storytelling has to be done based on a few parameters like Voice System, body language, fluency in English, characterization, and pacing.

S.No	Performance	Ratings
1	Speak in English fluently and clearly with an appropriate volume, expressively uses body-language, very good coordination, grabs the attention of the audience with a good story narration.	9 to 7
2	Speak good English with appropriate volume, uses positive body language, good coordination, and good story narration.	7 to 5
3	Speak in English with a proper volume, fair coordination, narrate the complete story.	5 to 3
4	Speak poor English, use low volume, no proper coordination, incomplete story narration.	3 to 1
5	Very poor English, poor knowledge of the story, poor coordination	1 to 0

The advantages of Jigsaw Activity in English classroom:

1. It encourages group interaction among team members.

2. They learn self-teaching skills.
3. Students gain much from their peer members to understand the given material, rather than individual learning.
4. It promotes critical thinking, problem-solving and cognitive skills among the students.
5. It creates entertaining and fascinating teaching and learning environment.
6. It develops confidence levels of slow learners.

2. Student Team Achievement Division (STAD)

STAD is one of the best collaborative learning strategies that can be introduced in Englishlanguage classrooms. It is introduced by Robert Slavin in 1978. The STAD strategy works well for students with mixed abilities, who work for team recognition by undertaking different responsibilities for individual learning. According to Gross (1991, p. 56), "STAD is a technique in the teaching-learning process that is effective to increase students motivation and enthusiasm, and it can develop their responsibility in their own group". Many studies have proven that implementing STAD strategy in English classrooms renders great academic achievement.

There are five major components in STAD

1. **Lecture presentation:** The teacher gives a presentation on a lesson and students need to pay careful attention to teacher's presentation, if they understand the concept of the lesson, it will help them in gaining good score in quizzes. The score gained by them in their quizzes finally determine their group score.
2. **Group study:** Every group consists of six to seven students whose knowledge is of different levels. Each group has to participate in group discussion and work together to make sure every member of the team can score more marks in the quiz. This process promotes great responsibility in group work.
3. **Quiz activity:** The teacher conducts a quiz on the lesson presentation given in the class. Adequate time is given to all the students to answer the quiz individually.
4. **Individual score improvement:** The teacher gives a review of the lesson and all members of the group practice based on the review. All the members of the team have to make sure that everyone knows the answer. This process gives the opportunity to perform better individually and contribute more points to their group ultimately.

5. **Team recognition:** The groups whose averages of improvement scores exceed an expected level will be rewarded with certificates and prizes. Such a recognition and rewards give more satisfaction to the students in learning.

The topic for the Activity: Reading Comprehension

Objectives of the Activity

- To develop fast reading skills.
- To enhance the ability to identify new words through contextual clues.
- To improve the skills of skimming and scanning the texts.
- To cultivate critical thinking skills of the students during the reading process.

The Strategy of conducting the activity:

This activity requires a minimum three-hour class. After the presentation on the reading skills, the teacher has to form six or seven heterogeneous groups in the class which include both the girls & boys, active and slow learners. The teacher has to provide some worksheets or teaching material to the students individually and instruct them to go through it for further information on reading skills. The students have to work with their members to discuss and get their doubts cleared and get more clarity on the topic. Every team has to make sure that all the members of their team have understood the lesson and can perform better during the activity to score good marks. The teacher conducts a quiz on reading skills to test the understanding level of the individual student. The students have to attempt the quiz on their own. After the quiz, every student will be given the individual score on mastering the knowledge of lesson. Later, an activity is conducted on reading comprehension. All the teams will be given a reading text consists of five to ten paragraphs and 15min of time to read and work with their team members to understand it. After the given time the teacher asks questions on the comprehension one by one to all the teams. Finally, the teams which score expected marks will be given prizes or rewards.

Advantages of STAD:

- Students work in groups to achieve the objectives of language learning.
- Learn assisting and motivating their peer members to succeed in the activity.
- Group work increases the students' self-confidence and respect.
- Interaction among the students increases their skill to argue with others.

3. Teams-Games-Tournaments (TGT)

Teams-Games-Tournaments: it was initially introduced by David DeVries and Keith Edwards as a collaborative learning technique (DeVries et al. 1975). It is similar to Student team achievement division (STAD) with respect to presentations and group work but it replaces the quizzes with games. The teacher conducts a game activity in which students take an active part and work with other peer members to contribute the good score to their teams. This collaborative technique makes all the students more enthusiastic and about teamwork. It creates a healthy comparative and cooperative learning environment in the English classroom for academic achievement.

The topic of the activity: Proverb Building

Objectives of the Activity

- The objective of the proverb building activity is to make the learners use proverbs in their day to day communication to beautify their language.
- To inculcate the listening and thinking habits in students
- To enhance the ability to construct sentence structure.
- To improve the communicative competence among the learners through collaboration and interactions during the activity.

Strategy for Team formation

Team Formation:

The Team is formed based on the heterogeneous mixture of students. As every class contains all type of students like Very active, moderate and poor students, this team forming strategy helps us dividing the teams with the mixture of students.

Strategy for Motivating passive participants

It is the primary responsibility of every teacher to motivate the passive learners in the class. These types of learners hardly participate in group activities. As a teacher knows the passive students of his class, he may use a few strategies to motivate the inactive participants in the group during the activity.

- Appreciating them for their participation first.
- Encouraging them by clapping
- Activating them to think and work in a team to contribute correct proverb idea.
- Continuously reminding them about the left time to answer.
- Now and then giving them the clue to identify the correct match of the proverb.

Strategy to open Deadlock

According to the Oxford Advanced learner's dictionary Deadlock means "a condition, of two opposite parties, in which no growth can be made". It is common that when a group activity is conducted among different groups, finally two groups are found which are very near to the answer with a small correction and they need a clue for guess the answer and open the deadlock between the groups and score the mark.

Strategy: Giving the clue

If the teacher finds two teams during the activity in the deadlock situation and both the teams have to be given a clue to guess the answer. The team which guessed the proverb by using clue successfully is to be given the mark finally. For example, the proverb is "**One can't prepare an omelet without breaking the eggs**". The word "**BREAK**" can be given as the clue to both the teams.

The Process of Evaluation

- The evaluation will be done by the teacher and a few student volunteers during the activity.
- The day before conducting the activity, the teacher has to inform the students about the activity and preparation required for the activity.
- Next day the teacher has to inquire about the preparation done by the students for the activity.
- The teacher has to observe the students who are very active and playing the role of a leader during the activity in the group.
- The student volunteers observe the participants who are contributing the idea of the correct proverb to the group.

S. No	Performance	Ratings
1	Highly active participation, competitive spirit, very good knowledge of proverbs, very good coordination and time management	9 to 7
2	Active participation, good knowledge of proverbs, good coordination	7 to 5
3	Good Participation, a little knowledge of proverbs, fair coordination	5 to 3
4	Fair Participation, a little knowledge on proverbs, no coordination	3 to 1
5	Poor participation, Very poor knowledge of proverbs, poor coordination	1 to 0

Median Score =

3	4	5	5	6	7	7	7	8	9
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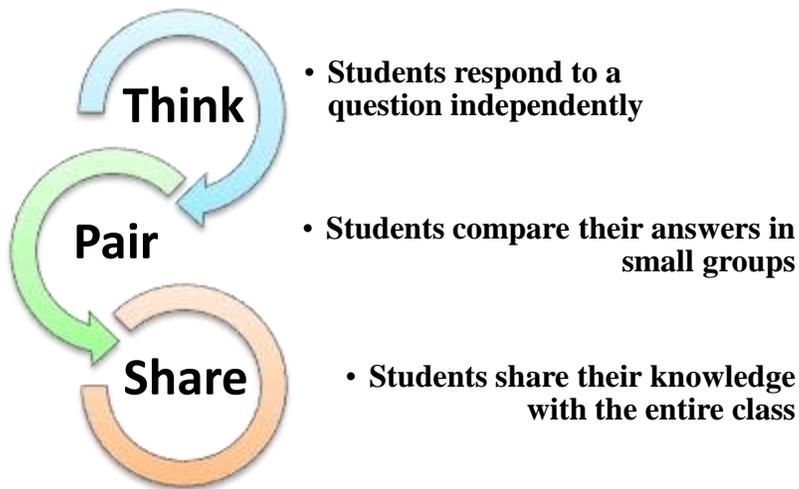
$$= \frac{6+7}{2} = \frac{13}{2} = 6.5$$

Team-wise Evaluation and Score						
S. No	Team Name	No. of Students	Team Score	Median Value	No. of Teams Performed less than Median Score	Important Reason for Team's Performance
1	A	6	5	6.5	5 Teams (A, B, F, H, I) Performed less than Median Score i.e 6.5	<ul style="list-style-type: none"> A little knowledge on Proverbs and coordination
2	B	6	4			<ul style="list-style-type: none"> A little knowledge & Lack of coordination among the team members
3	C	6	7			<ul style="list-style-type: none"> Active & good proverbial knowledge
4	D	6	7			<ul style="list-style-type: none"> Active & good proverbial knowledge
5	E	6	8			<ul style="list-style-type: none"> Highly active, Good knowledge and very Coordination
6	F	6	6			<ul style="list-style-type: none"> Good knowledge but lack of time management
7	G	6	7			<ul style="list-style-type: none"> Active & good proverbial knowledge
8	H	6	5			<ul style="list-style-type: none"> A little of knowledge on Proverbs and coordination
9	I	6	3			<ul style="list-style-type: none"> Very poor knowledge and no coordination at all
10	J	6	9			<ul style="list-style-type: none"> Highly active, very good knowledge and coordinative

Suggestions to improve the Activity Next Time

In order to participate in a collaborative learning activity, the students need basic knowledge on the topic on which the activity is going to be conducted. So the teacher has to use suitable teaching method to teach the particular topic. After finishing the lesson, if the teacher wants to know whether the students learned the topic or not, the activity can be conducted. Make sure that all the students understood the concept of the topic well. Give proper guidelines and provide a rubric for their performance evaluation to participate actively and compete with other groups to gain more points during the activity.

4. Think-Pair-Share (TPS)



Think pair share (TPS) is a wonderful technique that is intended to provide the required time for students to think on a given topic, develop ideas and share them with their peer members. This technique encourages an active participation among the students by creating a healthy learning environment. Through interaction, students learn from each other rather than simply doing traditional recitation. In this technique, a language teacher poses a thought-provoking question to and one student offers a reply. Moreover, this technique allows the students to share their ideas and opinions with at least peer member or a small group, which improves their sense contribution in classroom learning. This TPS technique also can be used as an assessment tool by language teachers by observing the student's conversations and responding them accordingly.

The think-pair-share technique is very advantageous for English language classrooms to enhance the English conversational skills of the students. This technique also can be used as brainstorming, concept reviews, topic development, and quiz reviews etc. It helps the engineering graduates to improve their ability of conceptual understanding of a lesson, filtering the information and draw a conclusion.

The topic of the Activity: 'Think and speak'

Objectives:

- To encourage interaction in English among the students.
- To develop creative and analytical thinking.
- To make the students think out of the box individually.
- To generate more ideas on a single concept.
- To give chance to interact with peers, listen and understand diverse opinions and views on a particular topic.
- To improve the confidences of sharing ideas in front of the entire class.

The strategy of conducting the activity:

1. Before implementing this technique, the students have to be given clear instructions about the activity, its objectives, and outcomes.
2. Teacher asks a thought-provoking question to the students.
Example Question: *'Why do people get dreams during sleep? Let's do a think pair share.'*
3. Give five minutes of time to the students to think on the question.
4. Instruct the students to turn to the next students and reflect their ideas and opinions.
5. The students interact with at least one peer member and share their thoughts and opinions on the question. During their interaction, the teacher observes the conversations among the small groups and guides them accordingly.
6. During this stage, students get an opportunity to offer their opinion. It increases their confidence in speaking in English when their ideas are relatively matching with others.
7. After the discussion, the teacher motivates the students to share their ideas on the stage with all the students.

8. When the students present their answer in front of the entire class, they speak with a lot of confidence as the answer is not of their own, but of the opinions of their group and it may not seem so intimidating.

Benefits of TPS:

The main benefit of the think-pair-share technique is the student's involvement is more in the class than the teacher's explanation on the lesson. The teacher can make passive students also take an active part in this activity. The teacher gets an opportunity to observe all the participants during the activity when they work in groups and comes to a conclusion of whether all the students in the class understood the concept of the lesson or if there are any areas that are to be reviewed in the class.

Advantages of Collaborative Learning Activities:

- The main advantage of collaborative learning is students start speaking and practicing language skills they are trying to learn. Speaking fluently in English is very important for engineering graduates to be hired by MNCs. If these collaborative activities are implemented at the beginning of the courses, the language teachers can control the students' fear of speaking in English.
- As the language and communication skills are imbibed by mutual cooperation and group learning. This collaborative learning environment makes the students help each other in learning. When students help each other in asking and clarifying the doubts of English language it benefits both the students involved for remembering them and applying them in their day to day communication.
- Motivation factor matters a lot in English language learning. The students get motivated in various ways. One way of motivation comes, when slow learners observe the active students speaking fluently in English during the collaborative activity and they try to imitate and cope with others with the encouragement and support given by group members. When the students share their learning experiences it becomes the blueprint for the success of other members in a group.
- Communication among the student's increases and they start using the language creatively in collaborative classrooms. However, the students don't know the perfect grammar they

express themselves in English at the same time will be able to understand the English of other students. Though the grammar is less prioritize in collaborative classes it makes communication happen fruitfully.

- Collaborative techniques activate different learning styles among students. One such a learning style is social or interpersonal. During the language learning activities, students set their goals and strive together to achieve it.
- As a part of the assessment, while conducting the collaborative activity, the teacher is able to observe the pronunciation skills, usage of grammar and vocabulary, and the ability of the students in communicating in English. The teacher shares the positives and negatives observed during the activity and gives constructive feedback to the students. This helps the students to rectify themselves and learn the language skills faster.

Conclusion:

The implementation of collaborative learning techniques in English language classrooms is very effective. As it is a well-known fact that language skills can be imbibed easily and effectively only through rigorous practice and collaborative work, these CL techniques create such a teaching and learning environment in the English classes. It not only develops the linguistic features like fluency in English, grammar, vocabulary and pronunciation skills of the students but also improves self-confidence and strengthens the psychological health in controlling their stage fear, the hesitation of expressing themselves in English. Collaborative learning classrooms stimulate both the teachers and the students in the most trustworthy and an authentic design of teaching and learning. Finally, it is concluded that the proverb *'two heads are better than one'* is absolutely true in case of collaborative learning English classrooms.

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