

Collaboration of Cognitive and Physical Activity: Think-Pair and Share in a Classroom

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ABSTRACT

Think-pair and share papers focus on the tests administered to different levels of the students on varied activities. With the help of the results, analysis was shown in the form of a discussion. The paper is based on task-based learning which contributes to collaborative and cooperative learning that do take place in the classroom scenario. Sometimes the content discussed with peers helps the students for deeper learning. Hence the activities related to Dictation Method, Internal Communications, Think Pair and Share Activity among the Engineering Students about writing an email for a job, an activity on Pop Picture Collage, and the activity related to efficient Reading skills.

Keywords: Think-Pair-Share, activity, peers, learning, collaborative, learning

Introduction

Cooperative learning, sometimes it is called collaborative learning, loads the involvement of the students learning from each other in groups. This type of learning is like a double edge sword. One edge is the students exercise cooperation with each other and on the other side it configures how the teacher and the students make the activity fruitful. The learning strategy through pairing and sharing the teacher helps the students learn more effectively. Indeed, cooperation is not only a way of learning but also a theme to be communicated and studied (Jacob, 1998). Think-pair-share (TPS) is a collaborative learning strategy. This is applicable to students who work together to solve a problem or answer a question about an assigned reading or write an article or discussion on any topic related to the subject. This strategy involves students (1) thinking autonomously about a topic or answer to a question, and (2) sharing ideas with classmates. Discussing with a peer maximizes participation, focuses attention, and engages students in comprehending the reading material. Above all, they learn more from the peer discussion than from the teacher.

Think-Pair-Share (TPS) is a cooperative and collaborative learning activity that can be administered in varied size classrooms and in any subject. Instructors or teachers pose a question, and students first **THINK** to themselves prior to being instructed to discuss their response with a person sitting near them (**PAIR**).

Advantages

What is the topic/concept/idea	What do I think about it?	What does my friend think about it?	Share with the friend

The above table can be applied in the English Language Learners (ELLs) classroom. The above strategy increases participation. And sometimes some students don't want to speak in a larger class. Think- and pair- share all the students are involved in the activity. They can voice their opinions and views and participate in meaningful and fruitful discussions. 'Many ELLs are known to have low self-esteem and often do not want to speak up in class, however when students are prepared and communicate with their peers they become more confident in their answer and are more willing to share their idea' (Wright, 2015).

Statement of the Purpose of the Strategy

The strategy helps

- Each individual student is given equal importance
- They can share their ideas
- They can read in-depth the content/ text paper which is given to them
- As each student has to share with the partner, the student reads carefully with comprehension.

Relevant Context :

Five activities are conducted physically in the classrooms to analyze the active participation of the participants.

Significance of the work

Some of the English teachers are interested to complete the syllabus in the semester. There is no interest or concern for the teaching/learning of the English language in the classroom scenario. And also the teachers don't come to class with differential instructions to the heterogeneous students. The same teaching irrespective of slow learners or mediocre or autonomous students. Hence the researchers administered these types of activities to bring awareness to the teachers and to show that there is more involvement of the students in the activity than in listening to the lesson in the regular class.

Procedure:

In this strategy there are three stages:

I stage: Think: The teacher provokes the student with a brainstorming question to think. The students take a few minutes to think.

II stage: The teacher as per the convenience of the class asks the student to pair with the seatmate. And the material is supplied to them

III stage: The pair talk, discuss and share their understanding with each other.

Research Hypothesis

Shy students in the class will open up in the activity- Think- Pair and Share. Passive students are involved in the discussion comfortably with their seatmates and exhibit their willingness to participate in the class.

Activity I

Think-Pair and Share in Dictation Activity

Introduction

If there are any shy and passive students in the classes, the 'learning tool is Think-Pair and Share'. 'It helps them to think independently'. It is a 'collaborative discussion strategy'. The teacher asks an open-ended question and students think quietly about it for a minute or two.

Method:

Think-Pair and Share

Strategies of the Method

There are 'metacognitive strategies' (Chamot and O'Malley, 1994) where the teacher prepares a lesson, planning to select the number of students, monitoring the activity, and how much learning has taken place from the point of the participants. On the other hand cognitive strategy is the student's articulating the content, 'mentally listening to the words', 'creating a visual image' of the content, 'associating the listened word with the familiar word', and summarizing the listened text.

Think-Pair and Share–Dictation Method

English as a Second Language (ESL) dictation helps students practice their communication and listening skills.

Activity Type: Reading, writing, listening and speaking activity

The Pattern of the Activity

Think -Pair and Share work

Participants

The participants are shy, passive, and active students in the class. The gender is both boys and girls. The sample size is forty-three on the day of the activity.

Place of conducting the activity

The laboratory can accommodate sixty students.

Preparation of the Teacher

The teacher created a text and divide it into equal parts. (It can also be divided into multiple parts but it should in an order of sequence)

Materials

The Sample Text for the Activity I

How Sneakers are Made

Sneakers are very popular shoes for sporting and casual activities. A large number of steps are involved in the making of sneakers.

The basic materials for making sneakers are leather and rubber. In the first stage of sneakers production, leather and rubber are prepared. Work begins on the sole and sneaker upper in the second stage. At the factory, pieces of leather for the sneaker upper are cut out. The leather is then dyed different colours and decorated with oriented patterns. The sole of a sneaker consists of three layers: the insole, middle sole and out sole. To make the insole, a thin layer of white, foamy plastic is cut out or moulded. The mid sole, which cushions the feet is made of a tough plastic called polyurethane. Other materials used are gel, silicone or compressed air. The mid sole is shaped with moulds or die-out. The out sole is formed by squeezing liquid rubber through a hole into a mould and using heat to harden it.

In the third stage, sneaker parts are assembled to make the final product. Workers begin by making the upper. Using stitch or glue, they put together the pieces of leather to make something that looks like round hat. This is what the upper looks like initially. In the next step, the final shape of the upper is formed by fitting it around a plastic mould called a “last”. After that, the insole is stitched or glued to the upper. Extra material is used to stiffen the heel and toe box. Next, the different layers of the mid sole are attached together and glued to the outer sole. Finally, workers glue the upper and sole together.

Before the sneaker leaves the factory, it goes through a finishing process. Any extra glue is trimmed, the leather is polished and fasteners such as shoelaces and Velcro are added to the sneaker.

Checks are made on the sneaker to spot problems with lasting, stitching and cementing. The sneakers are packaged and sent to the whole sale dealer who will then distribute to the stores.

The next time you buy a pair of sneakers, think of the effort involved in their production.

Level

I year B. Tech students (Advanced Intermediate level)

Procedure

Dividing the students into pairs (Student A and B) (Both shy and non-active students)

Phase I: Arrangement of the chairs in two rows. Row 1 is filled by student A and opposite student B sits.

For example

A → B

A → B

A → B

The teacher hands over half of the text to A-row students and the remaining half of the text to B-row students. Students in row A read and in B row students listen and write down what they hear.

And when the students of row A has finished reading, the two students swap role and the students of row B reads and the students of row A listens and writes.

Time or duration of the Activity: This is only 20 minutes activity.

Final Phase

When everyone has finished, the pairs are asked to sit together and go through their texts to check for spelling mistakes and misunderstood words.

Result

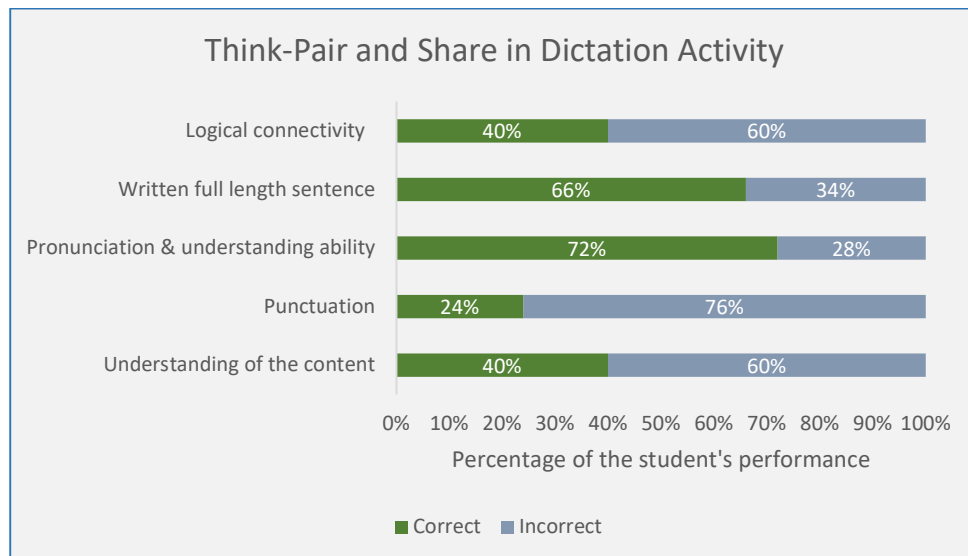


Figure1: Think-Pair and Share in Dictation Activity

Discussion

Analysis of the Result

40% had logical connectivity 60% could not establish the connectivity of the content logically; 66% could write the full-length sentence and 34% could not write as the speaker's voice was not intelligible; 72% could write correctly whereas 28% could not understand the pronunciation of the words from the reader's utterances hence there were a lot of spelling mistakes; 24% could understand the significance of punctuation in English language 76% did not follow the punctuation; 40% students could understand the content whereas 60% skipped the sentences, so unity of thought is lost.

Verbal Feedback from the Students

Pronunciation problem from the other partner; inaudible expressions; speed reading; full sentences could not be written; in reading the reader merges two words.

Positive Results

The Think-pair and share activity is 100% successful. Those who sat on the back benches also could communicate the issues they had faced during the procedure were shared with the teacher.

Limitations

The test was conducted on very few students in the class. In the same class, the rows of A and B sat. Hence it was noisy. For that activity, all the sixty students did not turn up.

Activity II

The topic is Internal Communications

Method

Think-pair and share

Warm-up Activity

To make the students ready to learn how the internal communication is significant in a workplace.

Materials

The teacher asks the Bachelor in Business Studies students to give examples of

- when managers (or teachers) have communicated well.
- when communications have been mishandled
- how communications could have been handled better

The teacher getting started a worksheet to work in pairs

1. They are bad at	a. rude aggressive language
hey ask people to do things which are not in	communicating with staff
3.They continually interrupt in	their job descriptions
hey pretend other people's good ideas	people's work
hey put the blame for their mistakes	on their staff
hey refuse to speak	to more junior members of staff
hey take decisions	on their own
hey use	without consultation

Once the activity is over the results are evaluated in the form of taking the feedback from the students.

Results

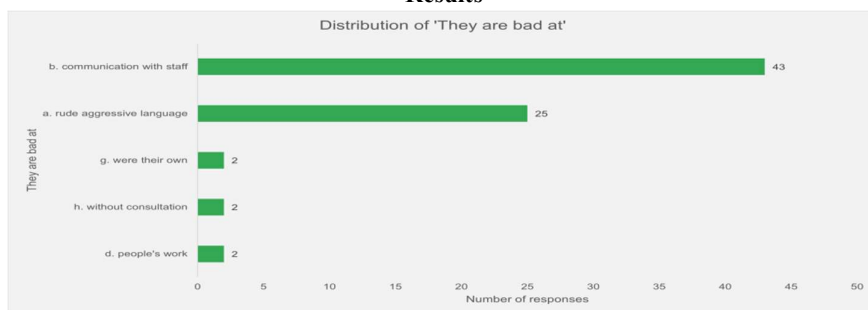


Figure 2:students responses for Statement 1 from the first column to the statements in the second column
Answer:Statement 1 from the first column match with statement b in the second column(1b)

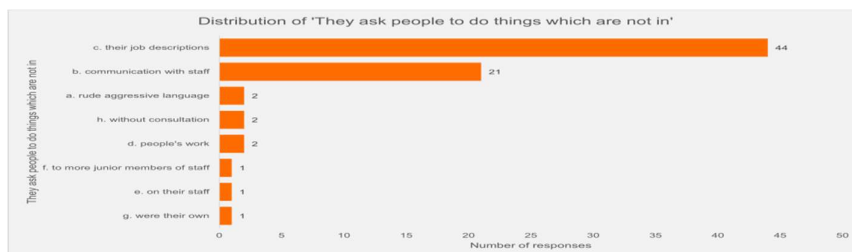


Figure 3:students responses for Statement 2 from the first column to the statements in the second column
Answer:Statement 2 from the first column match with statement c in the second column(2c)

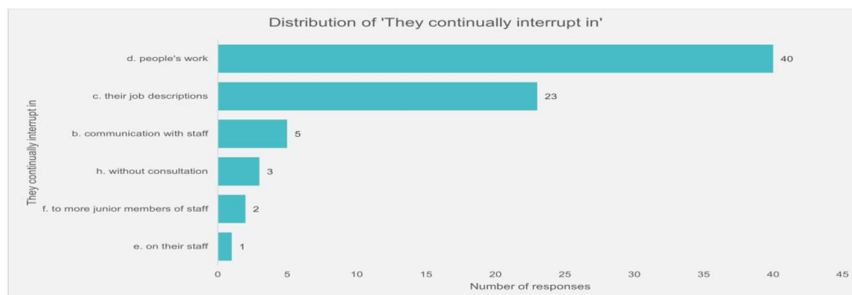


Figure 4:students responses for Statement 2 from the first column to the statements in the second column
Answer:Statement 3 from the first column match with statement d in the second column(3d)

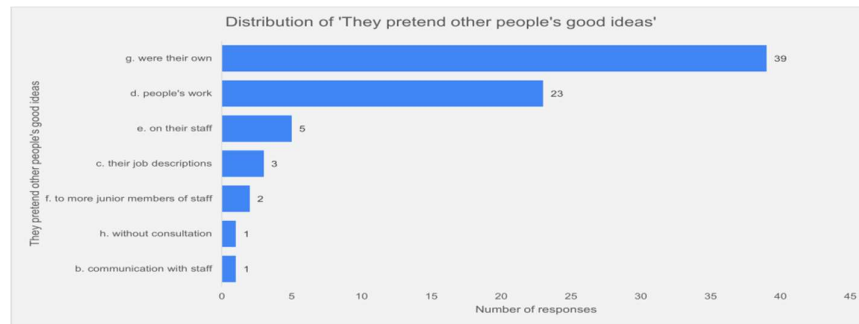


Figure 5:students responses for Statement 4 from the first column to the statements in the second column
Answer:Statement 4 from the first column match with statement g in the second column(4g)

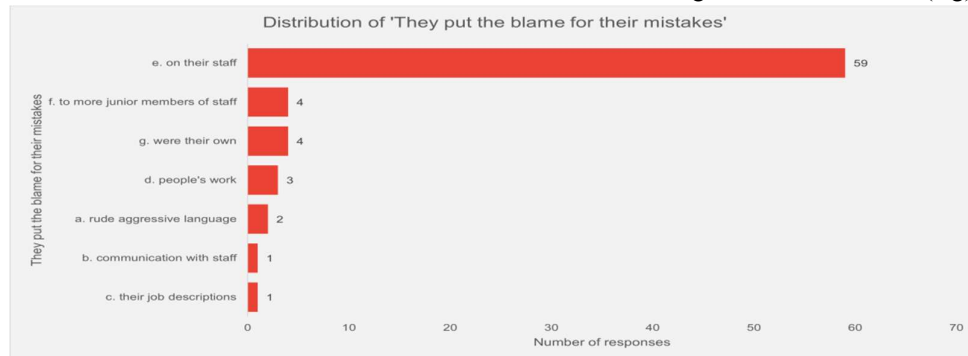


Figure 6:students responses for Statement 5 from the first column to the statements in the second column
Answer:Statement 5 from the first column match with statement e in the second column(5e)

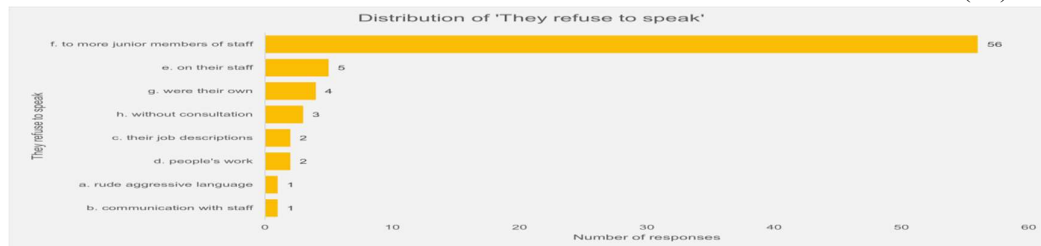


Figure 7:students responses for Statement 6 from the first column to the statements in the second column
Answer:Statement 6 from the first column match with statement e in the second column(6f)

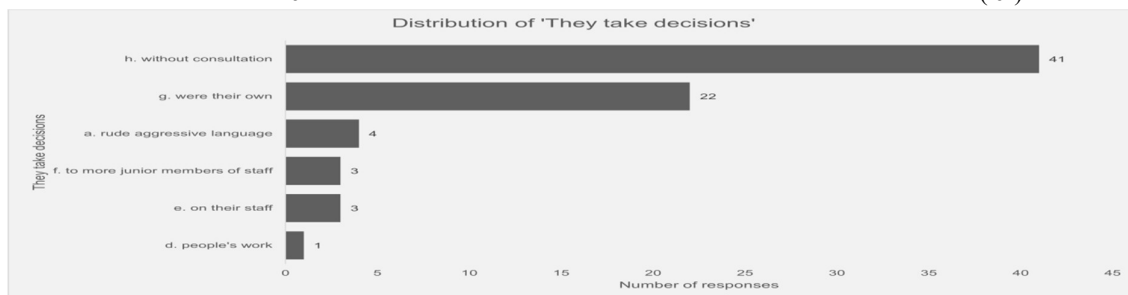


Figure 8:students responses for Statement 7 from the first column to the statements in the second column
Answer:Statement 7 from the first column match with statement h in the second column(7h)

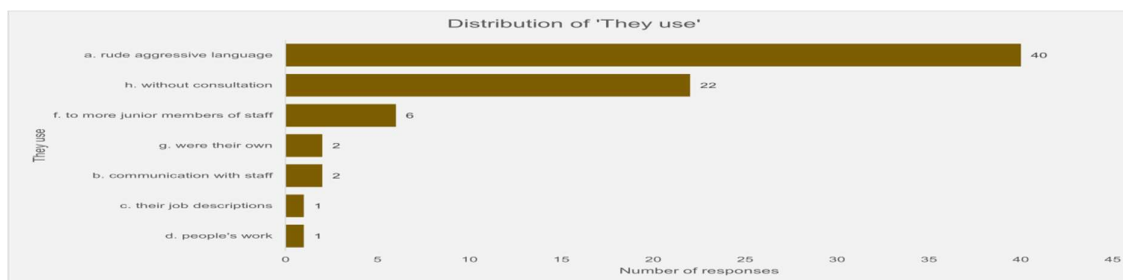


Figure 9:students responses for Statement 8 from the first column to the statements in the second column

Answer:Statement 8from the first column match with statement a in the second column(8a)

Discussion

Out of 74 responses only 50 students could respond 2 statements correctly .By the above results this obvious that, others have to be drilled well in the subject content.

The Advantages of Pair Work and Small Group Work

1. The students expressed that it helps them for discussion and decide on the correct answer. It means that learners have more speaking time in the classroom.
2. The teacher is not in a hurry to dump the content but changes the pace of the lesson to be absorbed into the learners' minds.
3. Pair and Share activity is not a teacher- center one rather it takes the spotlight off the teacher and puts it onto the students.
4. As the teacher keeps on changing the pairs, the students are allowed to mix with everyone in the class.
5. The teacher gives the rubric that no personal agenda and the activity is teamwork. Hence it gives them a sense of achievement when reaching a team goal.

Activity III

Think Pair and Share Activity among the Engineering Students

Sample of the Participants

The participants are III year Internet of Things (IoT) students

Pre Activity

This activity is conducted for III-year Internet of Things (IOT) students of an engineering college. Though they have come to the third year of B. Tech, they have not thought of the jobs they will be doing in the future. **It is a brainstorming session.**

Hence the researcher gave time to **think of the job titles they know** in their chosen domain.

While Activity

They could not come up with any titles the researcher made the groups into two persons and in a group they have to discuss the title, designation, roles, and responsibilities of the given designation. And they are asked to share and type a cover letter to the recruiter in the template of an email.

For example Application for an IOT Embedded Engineer. Location: Noida.

Sub-theme for the Embedded Engineer;

Soft Skills that the Embedded Engineer possess is an analytical mind; a passion for technology; an ability to problem-solve; an understanding of how to balance the practical and perfection; a track record of working well; good written and verbal communication skills; eagerness to continually learn and improve.

The researchers enumerate the attributes (Both soft skills and hard skills) of budding engineers.

Post Activity

The students are given more sample email letters for practice at home.

Results

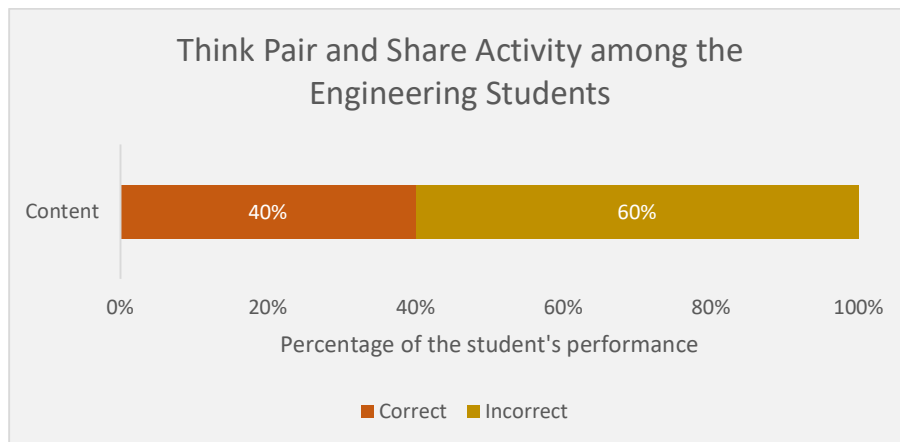


Figure3: Think-Pair and Share Activity among the Engineering Students

87% of the students have attempted with the proper template and the content whereas 13% of the students are not up to the mark.

Discussion

87% of the students know the template of a cover letter and resume writing. They also maintained a salutation line; subject line; reference line; the three paragraphs (the first paragraph is their response to the advertisement; the second paragraph is about their response to the advertisement about their qualifications and so on; and the third paragraph is about the conclusion. And it is followed by a complimentary closure with their signature.

They followed the full-block style.

Result Analysis

Regarding the content and maintain the paragraphing, 40% students were up to the desired level but 60% students could not maintain the full block style and a lot of grammar mistakes were found in the framing of the sentences.

Conclusion

Regarding the remaining 13% of students, the teacher conducted some remedial classes and prepared them to write aptly and technically.

Activity IV

Title: Pop Picture Collage

Time: 15-20 minutes

Aim: To Practice describing people

Preparation: For homework, the students are asked to bring to class one or two cuttings from magazines about singers or groups

Procedure in the Class:

1. Students are asked to display the cuttings on the wall. The teacher instructs them to place the pictures to touch one another; it makes for a more interesting collage. The teacher does several variations.
2. The students work in pairs and to take turns to describe different pictures to their partners, without saying the name of the artist (if they know it).
3. Invite the students to discuss the 'five W s (who, what, when, where, and why) to understand all parts of the picture'.

Variation: Ask the students to write a short descriptive paragraph about one of the people in the pictures (Preferably one they don't know), making it a purely physical description, and never naming the person. They should not give away the identity too soon so that it takes the readers (other classmates) time to guess who it is. When they have all finished, the students walk around and read each other's descriptions and guess who the people are.

Result

100% results are achieved in this activity. All the students participated actively.

Discussion

The average and slow learners also gained momentum. They are bored with the mugging method. The speaking and general awareness of the pictures could stir the cognitive ability of the students.

Benefits of the above Activity

The activity Think-Pair-Share is a talking and sharing activity, hence, the activity **gives the students the opportunity to feel more comfortable sharing their thoughts with their fellow learners**. It also helps to foster social skills, this strategy also improves students' speaking and listening skills. When pairs brainstorm the topic together, each student learns from their partner. Peer learning is more effective than the teacher teaching the topic because the instructional method is the same in a heterogeneous class.

Activity V

Reading Activity

Sample of the students

I year Cyber Security (CS)students

Quantity of the sample

Sixty-four

Reading with a Purpose

The most important thing to settle initially is why a particular message is being read. Is it for relaxation; for getting information; or for discussion at a later stage? Is it a specific reading or general reading? Depending upon the purpose or the need of the reader, the text is selected.

Need for Reading Skills for Engineering Students

Every engineering student has to develop reading skills for reading and interpreting textbooks; research papers; and send articles to technical journals; reading and comprehending laboratory instruction sheets; technical reports; reference materials and so on.

The Procedure of the Activity

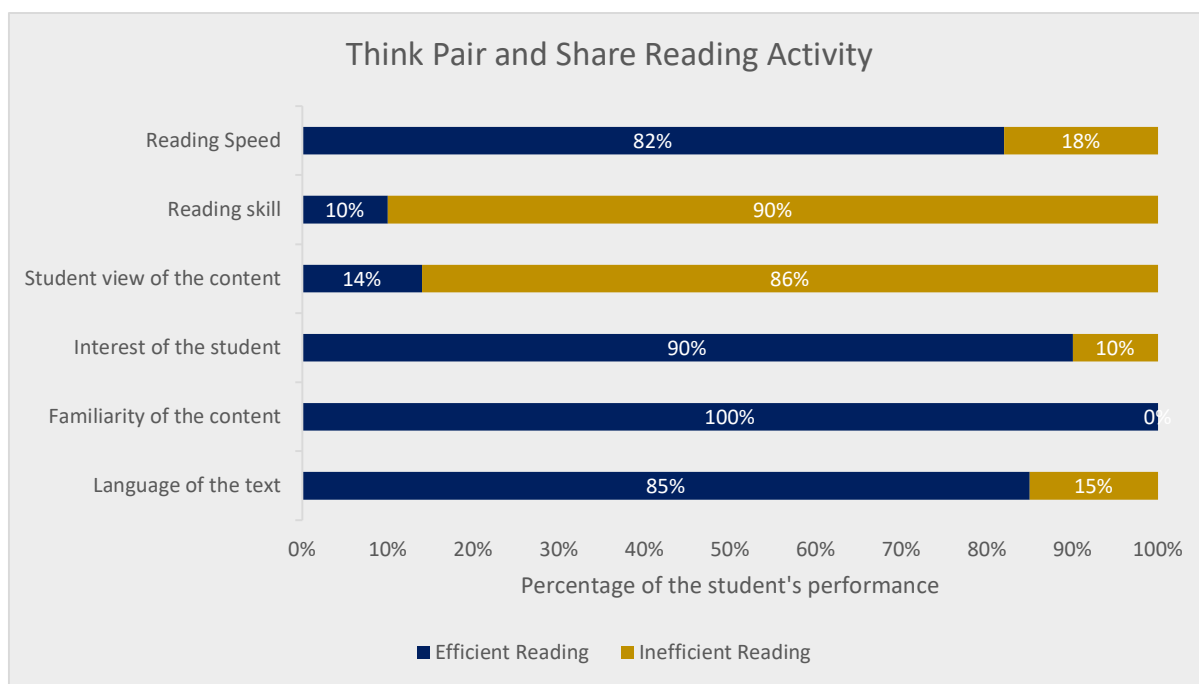
Techniques in Efficient Reading

Read any headings, subheadings, and words in bold or italics, illustrations. Note keywords. Read the topic sentence of each paragraph (usually the first sentence), and note the main idea of each paragraph. Look for linking words that show the connections between ideas, e.g. in addition, because, however.

Materials for Activity V

Text Sample for Reading

ICT is an abbreviation for Information Communication and Technology. If we talk about ICT, we also talk about the use of various digital technologies that have been created to easier the task of humans and various human works itself. Over the past 25 years, alongside a series of national and local programs for the development of ICT in education, there have been research studies on the uptake of ICT in education. These include studies of the effects of teacher training (Cox, Rhodes & Hall 1988), levels of sources (Cox, 1993), teachers' pedagogy and practices (Watson, (1993), and teachers' attitudes (Woodrow, 1990). For detailed research papers on many of these aspects see Passey and Samways (1997). Many of these studies have shown that in spite of teacher training programs, an increase in ICT resources, and the requirements of national curricula there has been a disappointingly slow uptake of ICT in schools by the majority of teachers.



Result

Figure 4:Think –Pair and Share Reading Activity

Efficient Reading	Inefficient Reading
85% shared that the language of the text is comprehensible	15% shared that they did not understand
100% of students expressed that the content is accessible and they are familiar with it.	-
90% of students have engineering inclination, so they could browse more on the content	10% are disinterested.
14% of students have a specific view of reading the content	86% of students have a general view of the content
10% of students used different reading skills to read the content	90% of the students are not able to use different strategies to read the content
82% students read fast	16% of students read fast but without comprehension

Analysis

Students pair and discuss the text supplied to them they recall their prior knowledge, process, practice with the co-participant, and communicate. The teacher is an observer and notes the level of participation of the students' especially passive students in the class.

Conclusion

Think-pair and share activity in the classroom is an active learning process. It is a focus on shy and non-active students in the class. The learning strategy of Think- pair, and share is helpful to students to develop

emotional bonding with their fellow students and also their cognitive skills are opened up.

This strategy is very important to get a flash of ideas to initiate conversation. English language learning is connected to day-to-day activities both in personal and professional life. This strategy also gives an opportunity to bond and impart the learned knowledge to others.

The results in the 'above activities indicate the importance of peer collaboration for in-class participation'.

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