BACKGROUND KNOWLEDGE PROBE (BKP)

Objective:

A *Background Knowledge Probe (BKP)* is a focused questionnaire that students fill out at the start of a unit (or course) to help teachers identify the best starting point for the class as a whole.

Execution Plan:

- Clarify your teaching purpose and learning goals for the *BKP*
- Prepare questions that will probe students' existing knowledge
- Set assignment parameters (how you'll present questions, time allowed, etc.)
- Develop a plan for learning assessment or grading
- Communicate assignment instructions to students
- Allow students time to complete the *Background Knowledge Probe*
- Reflect upon the activity and evaluate its effectiveness

Expected Outcomes:

- Present the *Background Knowledge Probe* to students.

- Provide students with time to respond to the questions.

- Review the answers so that you can determine the best point to start instruction.

CLARIFICATION PAUSES

Objective of the Activity:

- Student can getting cleared where is getting confused

- Improves the subject knowledge

- Improves communication skills

Execution Plan:

- Pause procedure is a technique in which the teacher makes use of strategic pauses to provide students with time during which they can review their notes, discuss among their pairs or undertake any similar activity that allows them to clarify, assimilate and retain the material.

- Pausing following presentation of key information is most appropriate. At least three two minute pauses in the lecture at 8-12 minute intervals to enhance learning.
- During the initial phase, to ensure adherence to the strategy use a minute timer set for every 10 minutes to force you to take a pause.
- This serves as a reminder for teachers as they may forget to use this strategy when caught up in their presentations.

- Sometimes students may request for more time to review and discuss the material. In such a situation the timer proves handy, as it signals the end of the pause period and the lecture is continued. Thus students are taught to work within the time period of the pause.

Expected Outcomes:

The pauses are effective only when the activity that follows stimulates and facilitates students to comprehend, reflect and learn the material. Here are some activities that you can follow with after you pause:

Note taking: Students can use this time to summarize the information presented in written format, listing down key points or main ideas, creating a graphical representation (mindscaping), filling an exit slip etc that allows them to reflect on the material head.

Pair review: A quick discussion among the pairs will help students in recalling facts, clarifying any misconceptions and filling in facts left out.

Framing questions: Students can be instructed to frame two questions based on the material that was presented. For example "how long was the first World war?"

Crossword: Students are presented with a quick crossword puzzle that they should solve. When called for, these puzzles can also be designed such as to connect previous learning with the present, in turn strengthening the learning.

JIGSAW

Objective of the Activity:

- To enhance problem solving, creativity and thinking skills in students.
- To understand team-based learning as an approach to collaborative learning
- To make students understand complex concepts.
- To develop oral communication skills, Fosters and develops interpersonal relationships.

Execution Plan:

- Divide students into 5- or 6-person jigsaw groups.

- Divide the day's lesson into 5-6 segments.

- Assign each student to learn one segment.

- Give students time to read over their segment at least twice and become familiar with it.

- Form temporary "expert groups" by having one student from each jigsaw group join other students assigned to the same segment.

- Bring the students back into their jigsaw groups.

- Ask each student to present her or his segment to the group.

- Float from group to group, observing the process.

- At the end of the session, give a quiz on the material.

Expected Outcomes:

- Develops higher level thinking skills

- Promotes student-faculty interaction and familiarity

- Increases student retention

- Builds self esteem in students

ONE MINUTE PAPER

Objective of the Activity:

- To encourage synthesis and reflection; to help students formulate questions; to check student progress.

Execution Plan:

- The Minute Paper is a very commonly used classroom assessment technique.
- It is thus a very adaptable tool.
- It really does take about a minute and, while usually used at the end of class, it can be used at the end of any topic discussion.
- Its major advantage is that it provides rapid feedback on whether the professor's main idea and what the students perceived as the main idea are the same.
- Additionally, by asking students to add a question at the end, this assessment becomes an integrative task.
- Students must first organize their thinking to rank the major points and then decide upon a significant question.

Expected Outcomes:

1. Minute papers can provide a "conceptual bridge" between successive class periods.

2. Minute papers can improve the quality of class discussion by having students write briefly about a concept or issue before they begin discussing it..

3. Minute papers are an effective way of involving all students in class simultaneously.

4. Minute papers can be used to stimulate and facilitate discussion of diversity.

5. Minute papers can promote class attendance and attentiveness.

PLICKERS

Objective of the Activity:

- Plickers is an assessment tool made by a teacher who was looking for a quick and simple way to check student understanding.
- This assessment tool allows teachers to collect on-the-spot formative assessment data without the need to have students use devices or paper and pencil.
- Teachers can use this tool with previous planning or on the go as needed. This tool provides teachers with the data needed to inform their instruction.
- It provides students with the opportunity to participate and engage in learning without feeling self-conscious.

Execution Plan:

- Plickers allows you to check in on student understanding.
- With the data collected you can inform your instruction for a follow up class or in real time.
- Students stay engaged as they watch to see if their card was scanned, and their answer displayed.
- The cards can either be bought online or downloaded and printed.
- There are two views to see the data collected Students mode and graph mode.
- Student mode shows all the students cards and names, and whether they have answered or not. The graph view shows the way students answered.
- On both views you have the option to show the correct answer.
- One of my favourite features is that you can sign in to your account when planning your lesson or if at some point during instruction you need immediate feedback, opening the app and adding a question is hassle free.

Expected Outcomes:

- Tool helps students stay engaged during formative assessments.
- Worry-free way for all students to participate in answering questions with anonymity.
- Teachers can get immediate feedback to inform their instruction.

PROBLEM-BASED LEARNING

Objective of the Activity:

- Problem-based learning (PBL) is a student-centered approach in which students learn about a subject by working in groups to solve an open-ended problem.

- This problem is what drives the motivation and the learning.

Execution Plan:

PBL is often group-oriented, so it is beneficial to set aside classroom time to prepare students to work in group's and to allow them to engage in their PBL project.

- Create the problem. Ideally, this will be a real-world situation that resembles something students may encounter in their future careers or lives. Cases are often the basis of PBL activities. Previously developed PBL activities can be found online through the University of Delaware's PBL Clearinghouse of Activities.

- Establish ground rules at the beginning to prepare students to work effectively in groups.

- Introduce students to group processes and do some warm up exercises to allow them to practice assessing both their own work and that of their peers.

- Consider having students take on different roles or divide up the work up amongst themselves. Alternatively, the project might require students to assume various perspectives, such as those of government officials, local business owners, etc.

- Establish how you will evaluate and assess the assignment. Consider making the self and peer assessments a part of the assignment grade.

Expected Outcomes:

- Working in teams.
- Managing projects and holding leadership roles.
- Oral and written communication.
- Self-awareness and evaluation of group processes.
- Working independently.
- Critical thinking and analysis.
- Explaining concepts.
- Self-directed learning.
- Applying course content to real-world examples.
- Researching and information literacy.
- Problem solving across disciplines.

STUDENT SUMMARIES

Objective of the Activity:

- It helps students learn to determine essential ideas and consolidate important details that support them.
- It enables students to focus on key words and phrases of an assigned text that are worth noting and remembering.
- It teaches students how to take a large selection of text and reduce it to the main points for more concise understanding.

Execution Plan:

1. Begin by reading OR have students listen to the text selection.
2. Ask students the following framework questions:

   a. What are the main ideas?

   b. What are the crucial details necessary for supporting the ideas?

   c. What information is irrelevant or unnecessary?

3. Have them use key words or phrases to identify the main points from the text.

Expected Outcomes:

- Use writing activities to build on prior knowledge, help improve writing, and strengthen vocabulary skills.
- Guide students throughout the summary writing process. Encourage students to write successively shorter summaries, constantly refining their written piece until only the most essential and relevant information remains.
- Have students work together to answer summary questions and write responses.

THINK PAIR SHARE

Objective of the Activity:

- To enhance problem solving, creativity and thinking skills in students.

- To understand team-based learning as an approach to collaborative learning

- To make students understand complex concepts.

- To develop oral communication skills, Fosters and develops interpersonal relationships.

Execution Plan:

Think-pair-share (TPS) is a collaborative learning strategy in which students work together to solve a problem or answer a question about an assigned reading. This technique requires students to,

- **Think**: Teachers begin by asking a specific higher-level question about the topic to the students. Students "think" about what they know or have learned about the topic for a given amount of time (usually 1-3 minutes).
- **Pair**: Each student should be paired with another student. Teachers may choose whether to assign pairs or let students pick their own partner. Students share their thinking with their partner, discuss ideas, and ask questions of their partner about their thoughts on the topic (2-5 minutes).

Share: Once partners have had ample time to share their thoughts and have a discussion, teachers expand the "share" into a whole-class discussion. Allow each group to choose who will present their thoughts, ideas, and questions they had to the rest of the class.

Expected Outcomes:

- Develops higher level thinking skills
- Promotes student-faculty interaction and familiarity
- Increases student retention
- Builds self esteem in students