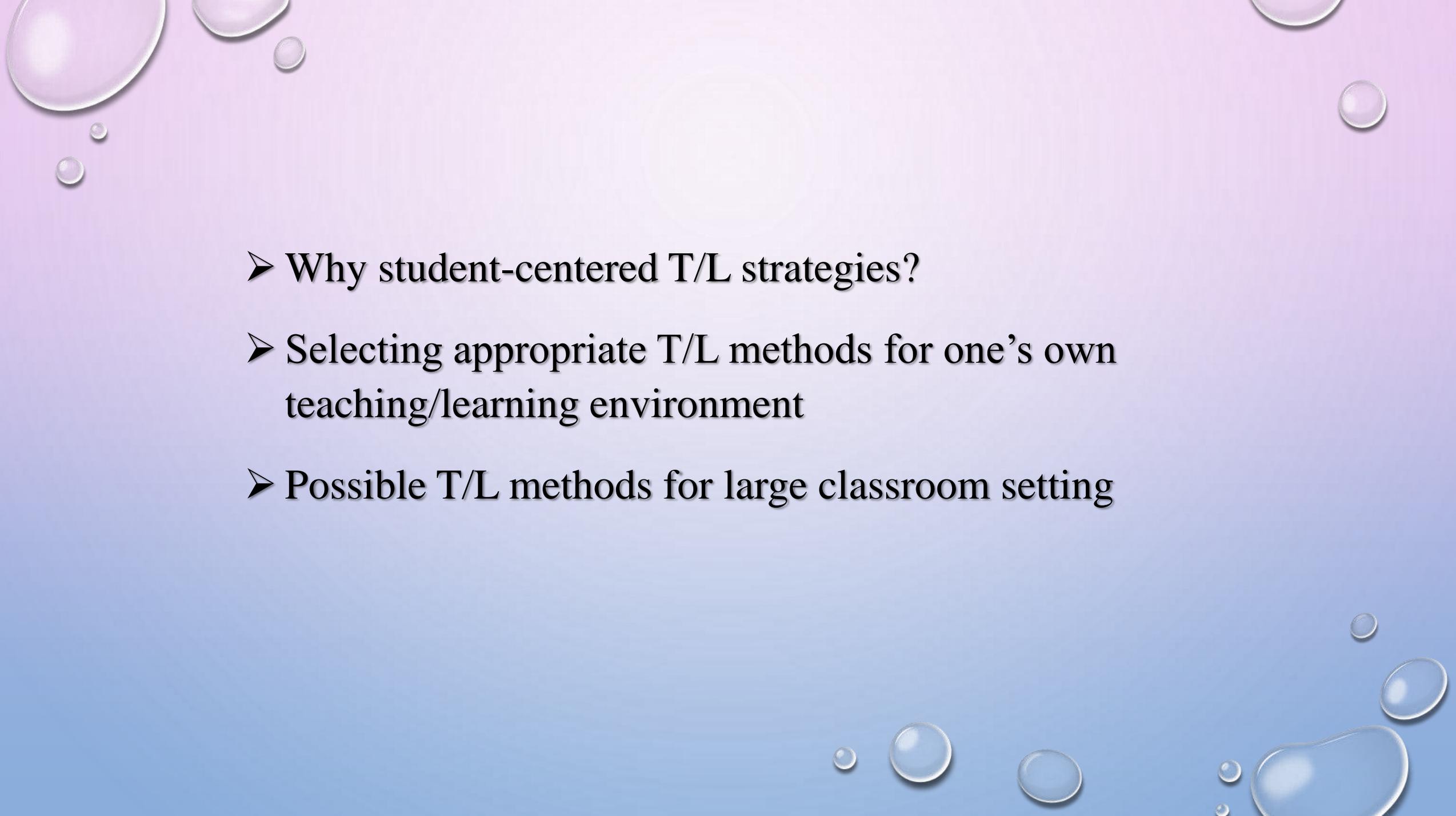


Student Centered Teaching/Learning Strategies for Large Class Environment

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12th August, 2022

- 
- Why student-centered T/L strategies?
 - Selecting appropriate T/L methods for one's own teaching/learning environment
 - Possible T/L methods for large classroom setting

University lecturer is not a teacher, rather a facilitator

A facilitator

- **does not operate under the traditional concept of teaching**
- **is meant to guide and assist students in learning for themselves**

Teachers as Facilitators

- **Needs to create a facilitative environment in the classroom**
- **Provides resources, manages progress, and encourages students to become problem solvers**
- **Helps students to achieve varying attributes – Knowledge, Skills, Attitude, and Mindset**
- **Needs to reach out to as many students as possible**

Needs preparation by the facilitator – search for different techniques, tools, etc.

Students need to do the work – they should be forced to do the work

Course units in the Study Programme

T/L Methods

Graduate
Attributes

Intended
Learning
Outcomes



Knowledge
Skills
Attitudes
Mindset

Intended Learning Outcomes of a Course Unit

- Statements of what students are expected to do (not just learn) after following the course unit
- Expressed from the student's perspective
- Expressed as action verbs (Bloom's Taxonomy) – observable and assessable
- These should be directly related to criteria for assessing student performance

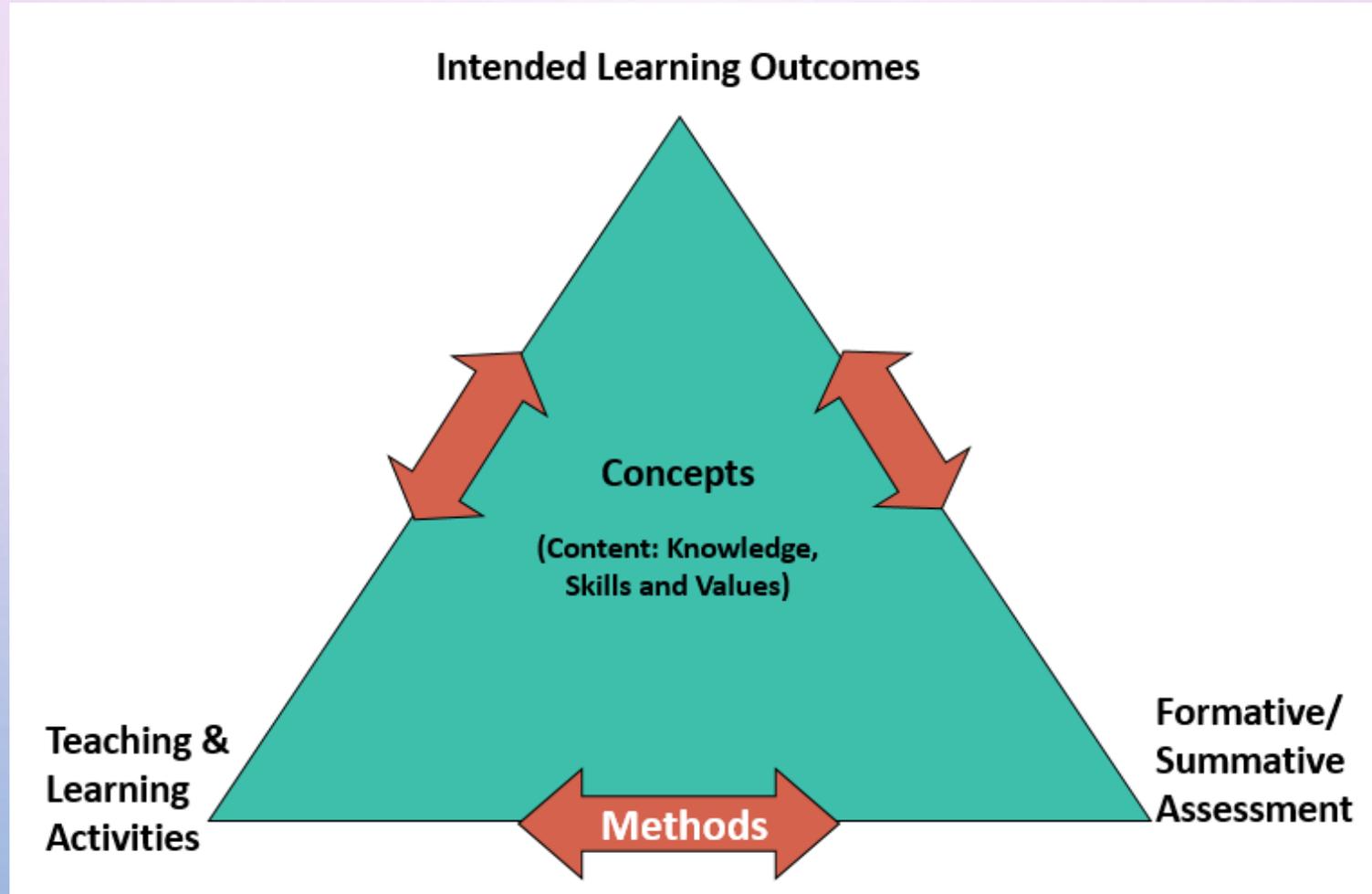
LEARNING OUTCOMES ...

- Help to guide students in their learning
- Explain what is expected of students
- Students can monitor their own progress
- Greater control over their own learning

LEARNING OUTCOMES **HELP THE TEACHER TO..**

- Focus on exactly what the teacher wants students to achieve in terms of both knowledge and skills.
- Assess student's progress towards achievement of learning outcomes
- Choose the most appropriate teaching method
- Make assessments more objective

Aligning learning outcomes, assessments and T/L methods



Ellis, D. (2007). Teaching Excellence Academy workshop. University of Waterloo, Canada.

What guides me to decide which types of T/L methods to be used during my lecture deliveries?

- **Intended Learning Outcomes and T/L Objectives**

A Model Course Unit

Research Methodology – 2 credit course unit
(15 hr theory + 30 hr practical/tutorial/etc..)

(Students are not expected to do any research work
to complete this course unit)

Possible ILOs of a Research methodology course unit;

On the successful completion of the course, the students shall be able to

(i) Demonstrate knowledge of research processes

(ii) Perform a literature survey

(iii) Compare and contrast different types of research

(iv) Organize and describe steps of a research process

(v) Select proper data collection methods and analysis tools

(vi) Identify and explain key elements of a research proposal

(vii) Explain contents of a research report

How best can you help students to achieve ILOs?

..... Course Aims/objectives

Course Objectives:

- What a teacher expects to deliver through teaching a course.
(Not necessarily be measurable, but broader than ILOs)

The objectives of this course unit is to develop student's ability to

- define a research problem
- perform a literature survey
- develop a research hypothesis through in-depth reading and critical thinking
- identify and understand proper data collection methods
- draw a proper research process/plan and time line
- select proper analysis tools/statistical methods
- analyze and use research results with reasonable confidence
- learn proper research report format and learn how to convey outputs to an audience

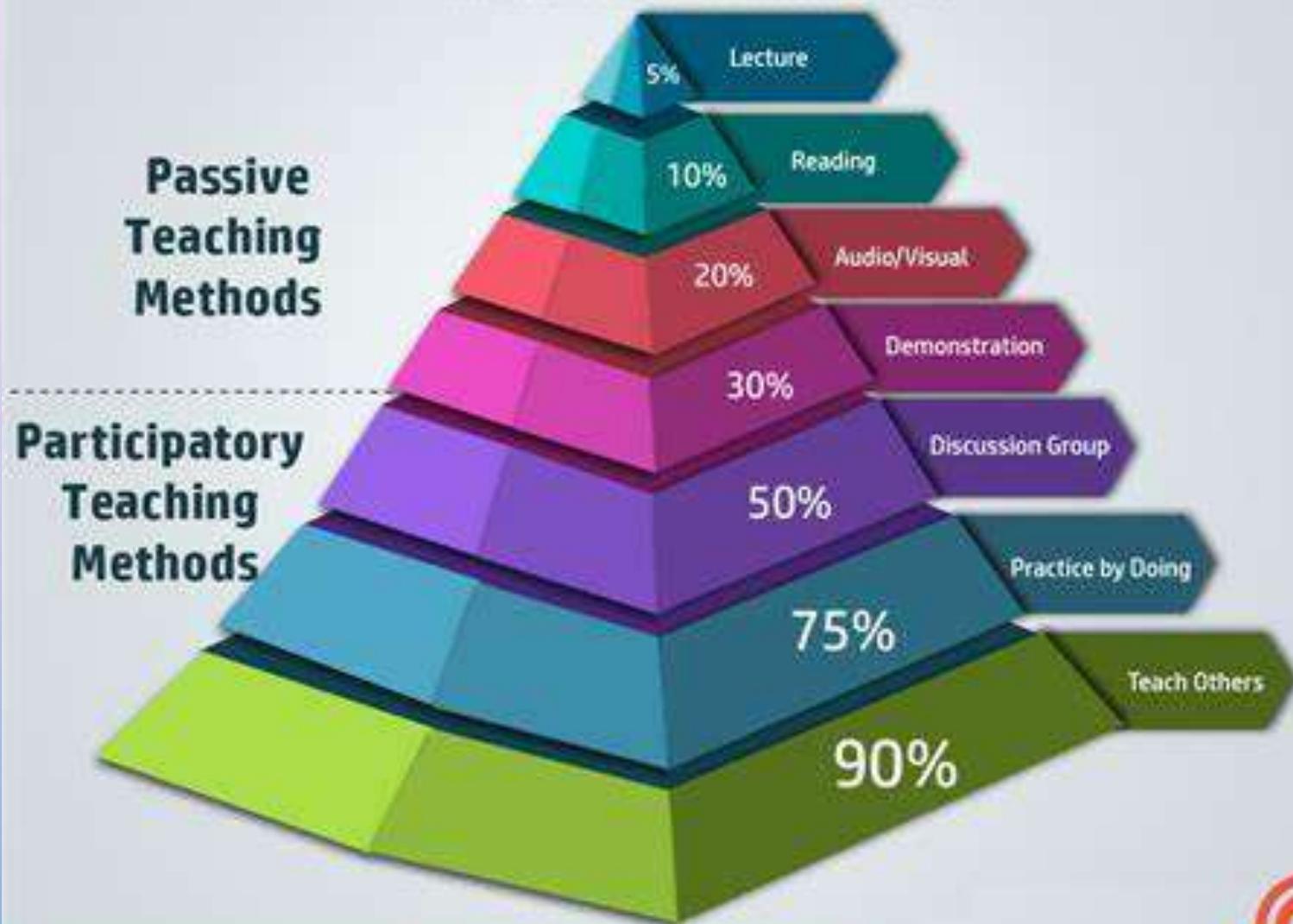
We need to design the course unit to fulfil these objectives

Course Objectives	<u>Possible Teaching/Learning activities</u> (in addition to or in place of delivering lectures)
To define a research problem	Self learning - Information gathering, observing, provide reading material to read in an area of interest, identifying a problem, reading relevant background information
To perform a literature survey	Self learning, internet surfing, journal search in the library and on internet, write a survey summary report
To develop a research hypothesis through in-depth reading and critical thinking	Group discussions, Brain storming sessions, Framing questions, Making informed guesses, teacher input, discussions with academic staff members
To prepare a research design/research plan	Group discussions, Brain storming sessions, teacher input, discussions with other academic staff for possible research problems, presentation, plan financial needs, logistic needs

Course Objectives <i>cont'd</i>....	<u>Possible Teaching/Learning activities</u> <i>cont'd</i>....
To identify and understand proper data collection methods	Discussion forums to compare data collection methods, preparation of surveys, learn about community engagements in data collection and how to follow administrative procedures
To draw a proper research process/plan and time line	Discussion groups, question/answer sessions, assignments
To select proper analysis tools/statistical methods and inculcate the ability to analyze and use research results with reasonable confidence	Lecture/discussions, tutorial sessions, Discussions on real life research examples, assignment
To follow proper research report format and learn how to convey outputs to an audience	Write a summary report or make a presentation on a case study

THE LEARNING PYRAMID

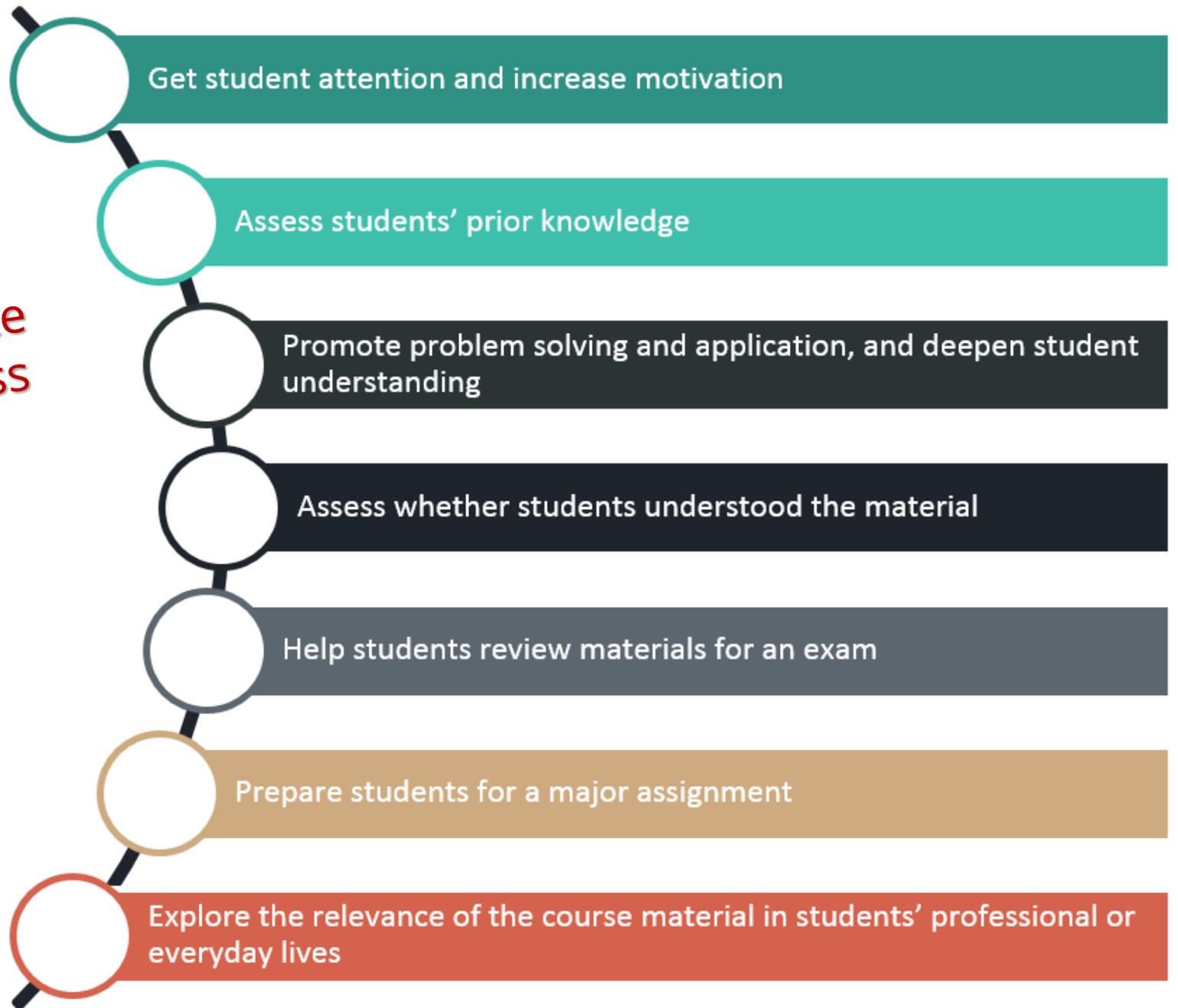
KNOWLEDGE RETENTION RATES



Adapted from National Training Laboratories, Maine



Teacher needs to promote active learning in the class
Such activities can:



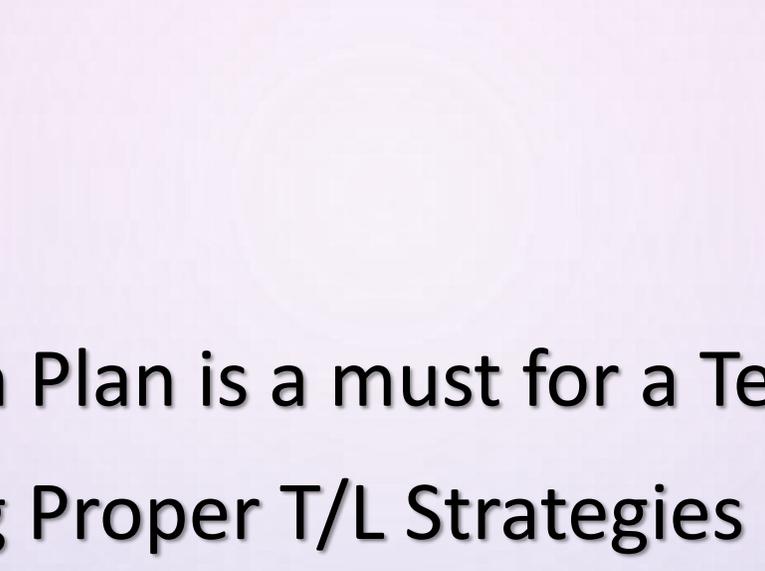
Choosing Possible Student Centered Teaching/Learning Activities

- How many students are in my class?
- What is my class environment – a big lecture theatre with steps?
- Which of my objectives/ILOs must/need to be achieved through some activities by students?

Large class Environment

- Several hundreds of students in a lecture hall?
- Is it possible to reach out to many students in my class?
- Am I willing to introduce different T/L methods to interact with my students in the class?

If the answer is Yes, let's check a few strategies

- 
- A Daily Lesson Plan is a must for a Teacher Facilitator
 - incorporating Proper T/L Strategies

Some Points to remember when you plan to introduce Active Learning - student centered learning activity in the class;

- The class size - small class (<50), Medium size class (50 – 100), large class (several hundreds)
- Detail planning of the activities/delivery of selected T/L methods
- Necessary time allocation in the timetable
- Request additional staff support, if necessary, to carry out some activities
- Making students aware of your plan (especially, if preparation by students before the class is required)
- Provide students T/L material in advance for their preparation and for the success of the activity
- Whether the T/L activity can accommodate, as much as possible, all students in the class
- Give proper/clear instructions to the class how the activity would be carried out

Visit following websites for more hints about T/L strategies

[Queens University, Canada](#)

<https://www.queensu.ca/teachingandlearning/modules/home.html>

[Iowa State University, USA – over 200 different T/L strategies](#)

<https://www.celt.iastate.edu/>

Think – (Write) - Pair – Share

Students could be challenged with a more complex or a complicated question/idea. They should go through a three-step process.

1. students think Individually about the question that has been posed – give time to form their answers/ideas (may ask them to write their thoughts as well)
2. students (sitting next to each other) are grouped in pairs to discuss their thoughts/ideas.
3. Student pairs will share their thoughts with a larger group (could be with a group sitting next to them, in the front, or in the back). Request groups to share ideas with class and teacher needs to write them on the board.
4. Follow up questions could be asked to deepen the understanding or a discussion can be initiated after gathering a few agreed upon ideas.

Quescussion (activity may last for about 10 – 15 mins)

1. A discussion through questions only.
2. Teacher initiates questioning by posting a topic/question to the class. The topic could be from a previous session, a topic that students are requested to read before the class, etc. (Need to write on the board/on a PPT slide)
3. Students can only add or respond to the topic/question only by asking another question. No statements can be made, only questions.
4. Can be done on individual basis or group wise.
5. Teacher should get all the questions on the board and with students support teacher can decide one or two representative questions to explore the topic further.

- Can begin Quescussion using - a problem, a controversial statement, a misconception, a video clip, a multimedia presentation, etc.
- prompts students to reflect on what they know and what they don't know
- they can extend their thinking by generating follow-up questions
- Promotes higher-order questioning skills

Use skeleton Handouts/notes (with missing information)

Provide students with a handout/power point presentation of the day's lesson, but intentionally omitting some key words/phrases/steps in a calculation, etc. from the notes/slides.

Students will have to listen closely during the class in order to fill in the missing pieces of information.

Some pieces of information can be requested from students themselves, individually or after small group discussions (pairs or three in a group sitting next to each other).

JIGSAW – can be given as a group homework

1. The class is divided into groups of 4 to 6 (equal number in each group, as much as possible).
2. Give them a task to do – e.g. They need to learn about a specific topic
3. The topic is needed to be divided into several subtopics (equal to the number of people in one group, 4 to 6).
4. Each member in a group gets a different subtopic. 1 – subtopic 1, 2 – subtopic 2, etc.
5. All 1's will be grouped together to discuss subtopic 1. All 2's will be grouped to discussed subtopic 2
6. *Request all students who got topic 1 to have a brainstorming zoom session and discuss the topic. Same with other topics. (teacher may provide the required number of zoom links)*
6. After completing all zoom sessions each member in the group needs to tell others in the group about the content learned under different subtopics (another zoom session for each group) and finally make a complete report about the topic.

In-class problem solving

1. Give a question to students to workout individually.
2. After allocating the required time, ask students to discuss what they did/didn't do with the person sitting next to him/her.
3. If either one or both could do the question they can still discuss why they did what they did. If one of them couldn't do it, then the other can show how to do it. If both couldn't do it then they have to find why.
4. Peer teaching/learning can be supported through such an activity.
5. Teacher can discuss the answer and students can find out whether or not what they did was correct and why/why not.

Minute Paper – reflecting on student's learning

This can be done either at the beginning of a class (regarding the previous lesson) or at the end of the class (regarding the completed session). Provide a piece of paper (size of an index card) to each student.

Students are requested to write one or two topics that they could understand well as well as one or topics that they couldn't follow, if any.

Teacher can collect and find out one or two major topics that students had hard time to follow and give some further clarifications.

This can be done once a week or once every two weeks – helps students to check their own learning

Online Teaching/Learning

- Use breakout rooms to encourage students to engage in peer discussions/learning
- Use interactive web platforms (e.g. Padlet, Mural, Miro, etc.)
- Use online games sites (e.g. Kahoot, Quizlet, etc.)



Thank You