Foundations of Pedagogical Science:

A Holistic Approach

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OBJECTIVES OF THE MODULE

- **After completing the module, you will be able to:**
  - know the conceptions of teaching and learning;
  - understand different learning theories;
  - appreciate the professional code of ethics of teachers;
  - know the missions and goals of higher education in Ethiopia;
  - understand the process and nature of working in higher education;
  - know the steps in curriculum development;
  - distinguish the major roles and responsibilities of staff in higher education;
  - know the qualities of an effective teacher;
  - recognize the basic principles of teaching;
  - apply appropriate methods and techniques of teaching in your subject area;
  - prepare/select and use appropriate instructional materials;
  - design and implement instructional projects in your field of specialization;
  - evaluate current practices in your field in relation to curriculum, methods of teaching, instructional materials, classroom management and assessment techniques.

MAJOR CONTENTS

- The Concepts of Pedagogy, Teaching and Learning

- Working in Higher Education Institutions

- Principles, Methods and Techniques of Teaching

- Assessment of learning

- Preparation, Utilization & Preservation of Instructional Materials

- Unit Five: Classroom Organization and Management

What do you know about pedagogy, teaching, learning and other related concepts?
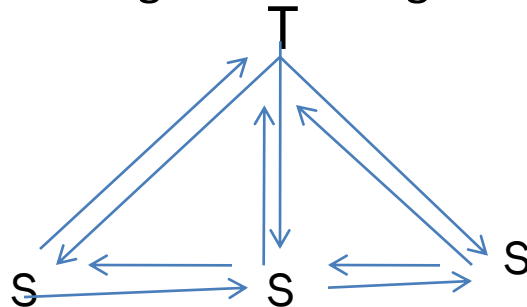
- **Pedagogy**
  - **the science & art of education.**
  - **deals with the method and practice of teaching.**
  - **Its aims range from skill acquisition to full development of the human being.**
- **Teaching as viewed traditionally:**

➢ For some teaching and learning is about an '**expert**' giving knowledge to those who don't have it:

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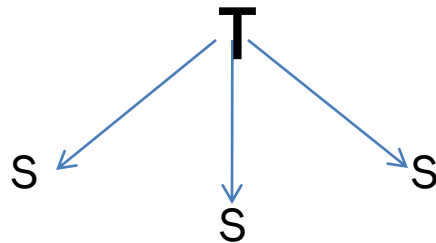
Teaching in its modern context:

➢ Interactive teaching and learning is about everyone learning from each other

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INTRODUCTION
THE CONCEPTS OF PEDAGOGY, TEACHING AND LEARNING

- **PEDAGOGY**
  - **the science & art of education.**
  - **deals with the method and practice of teaching.**
  - **Its aims range from skill acquisition to full development of the human being.**
- **TEACHING**
- **Different definitions depending on the philosophical views.**
  - **IDEALISTS =** Teaching is a process of transmitting/imparting knowledge,
  - **PRAGMATISTS =** Teaching is a process of facilitating individual's learning.
  - **NATURALIST =** Teaching is helping the individual develop the potential s/he possesses to become a person who s/he would be.
  - **TEACHING IN ITS MODEM CONTEXT** = "a process of facilitating students' learning through motivating, coordinating, guiding/directing and encouraging them in their learning activities and controlling/evaluating the learning results."

? LEARNING

✖ Different definitions:

➕ Learning is a relatively permanent change/modification of the behavior of the learner as a result of practice. Here the change in behavior is related to the acquisition of knowledge, the development of skills, and the formation of value systems (Ormrod, 2004)

➕ Learning is "an enduring **change** in behavior or in the capacity to behave in a given fashion resulting from practice or other forms of **experience**" (Schunk, 1996, P.445).

➕ Learning is "a persisting **change** in performance or performance potential that results from **experience** and **interaction** with the world" (Driscoll, 2005, p.1).

➕ Learning refers to lasting **changes** in the learner's knowledge, where such changes are due to **experience**" (Mayer, 2003, p.5)

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✖ In each of the above definitions **change** is brought about through **experience** or some from of interaction with the environment.

➕ To learn is to **change** or **have a capacity to change** one's level of ability or knowledge in a permanent way.

➕ Learning is measured by the amount of **change** that occurs within an individual's level of knowledge, performance, or behavior.

➕ To qualify as learning, this change must be brought about by **experience-** by the interaction of a person with his her environment.

➕ Changes simply caused by maturation such as growing taller or turning gray, do not qualify as learning.

- **Training**
  - Training has a substantial overlap with "**EDUCATIVE TEACHING**". The **focus of training is, however, on the development of skills.**
  - It appears that teaching is for human beings since humans are endowed with developed brain to reason out. **Animals can be trained to acquire simple skills but they cannot be educated** or taught for they have **no developed brain for reflective thinking**. On the other hand, human beings could be trained on both simple and complex skills. Therefore, training is for **BOTH ANIMALS AND HUMAN BEINGS.**

Teaching as a Profession

- A form of employment or occupation respected in the society as honorable, and only possible for an educated person and after getting training in some special branch of knowledge.

- An occupation that provides special service to the community based on accumulated knowledge, skills and wisdom.

- Controls the entry qualifications and work standards of its members.

Characteristics of a Profession

- A unique, definite and essential social service;
- An emphasis on intellectual techniques in performing the service;
- **A long period of specialized training;**
- A broad range of autonomy for both the individual practitioner and for occupational growth as a whole;
- An acceptance by the practitioner of broad personal responsibilities for judgments made and acts performed within the scope of professional autonomy;
- **An emphasis on the service rendered rather than the economic gain to practitioners;** and
- A comprehensive **self-governing** organization of practitioners.

Every profession:

- involves an intellectual activity that requires a body of subject matter knowledge and a system of skills.

- is practicable.

- Requires an **extended period of preparation for entry**.

- Has **literature and unique languages of its members** (area of research and specific terms, concepts, principles, laws and theories)

- Is **ORGANIZED.**

- Requires a professional who performs specific functions for personal and social purposes. (Teachers earn a living through teaching & also serve society)

Teachers' Professional Code of Ethics

- **Teachers Responsibility to Their Students**
  - deal justly and impartially with pupils
  - recognize the differences among pupils and seek to meet individual needs
  - help pupils to develop an understanding and appreciation of democracy as well as their obligations.
- **Teachers Commitment to Their Profession**
  - perform their duties in honesty to their colleagues,
  - treat colleagues the way they want to be treated,
  - acknowledge the works of others, and work toward the improvement of their profession.

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- **Teachers Responsibility to Their Employers**
  - conduct professional business through proper channel;
  - refrain from discussing confidential and official information with unauthorized people;
  - be fair in all recommendations that are given concerning the work of other teachers;
  - cooperate in the development of school policies; and
  - accept obligations from the employing institute or office to maintain professional level of service.
- **Teachers Responsibility to Parents and the Community**
  - perform the duties of citizenship and participate in community activities
  - respect the community in which they are employed and be loyal to the school system, community and nation;
  - report the progress of students to parents; and
  - work to improve education in the community.

✖ What is higher education?

– Institutions that provide **post secondary education** a

- **produce human resource,**
- **conduct research,**
- **provide community services**.

➕ **tertiary level institutions** that should educate students to become well informed and deeply motivated citizens, who can think critically, analyze problems of society, look for solutions to the problems of society, apply them and accept social responsibilities through lectures, practical work, fieldwork, tutorials, etc. for the development of knowledge, skills and attitudes.

Origin of Teaching Methods

Different patterns of teaching methods have their origin from different sources.

1. **Those that are derived from teaching traditions**:

   ✗ in this case a teacher adapts methods of teaching advocated or employed by their instructor during training. This is supported by the saying "**Teachers teach the way they were taught**".

2. **Those that are derived from philosophical traditions:**

   ✗ educators as a result of their intensive studies investigated (found) a method(s) that can be used in the teaching-learning process. Then, teachers follow/use the methods discovered. That is, teachers pick up methods used or advocated as well as developed by scholars. Examples of such methods are **Comenius's synergetic methods, Pestalozzi's object lesson, Dewey's project method, Baconi's inductive method, etc.**

3. **Those methods that are derived from teachers' own needs or dispositions**:

   + Some teachers have the desire to take the leading role (dominate) in the teaching-learning process. They use (most of the time) lecture method. Others want their students to actively involve in the etaching0-learning process; thus use active learning techniques. In short, teachers use different types of methods of teaching according to their intensions.

4. **Those that are generated by the demand or requirement imposed by the school or community**

   + Sometimes, authorities may impose on teachers to adapt certain teaching methods. This may be in view of adapting a highly disciplined behavior required of students by the school or the society.

Characteristic of Effective Teachers

Task (think –pair-share)

1. What are those things that teachers do which cause them to be perceived as effective and interested in students?

2. What are those things that teachers might inadvertently do which cause them to be perceived as ineffective or uninterested in students?

Characteristic of Effective Teachers

What teaching characteristics are we expecting of a teacher in **a higher institution**?

- Good knowledge of the subject he/she teaches
- An understanding of how students learn.
- A concern for students' development.
- A commitment to scholarship/learning and research/
- A commitment to work with and learn from colleagues.
- Continuing reflection on professional practice.
- Experiences/ experience of using & preparation of instructional materials from local resources
  - Knowledge alone is not enough if one doesn't know how to pass it.
  - method of teaching (skills) alone is not enough if one has no knowledge to pass on;
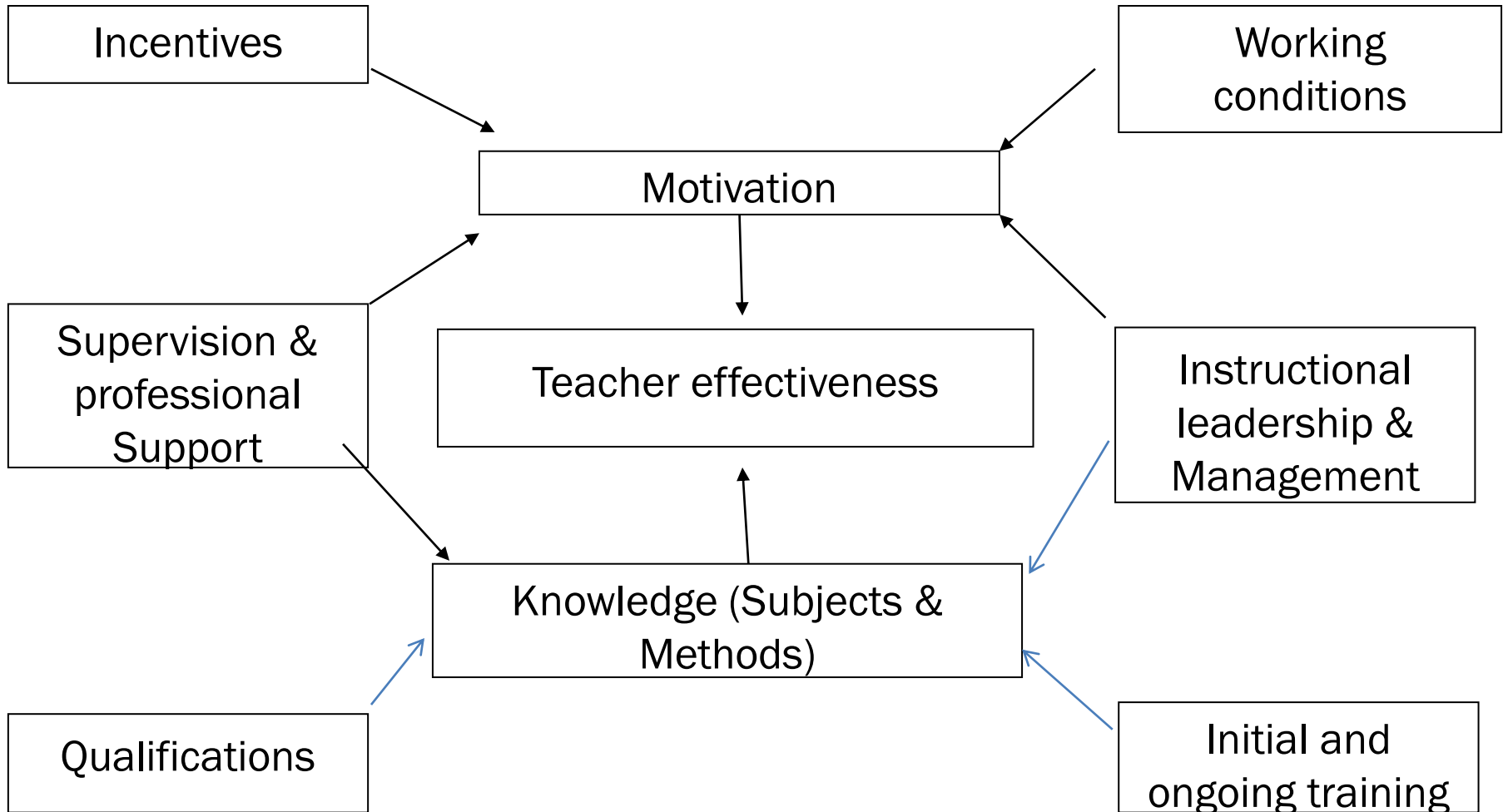 - Experience alone is not enough, if one fails to learn from it.

Effective and Ineffective Behaviors of Teachers

Effective behaviors	Ineffective Behaviors
Appears interested in students and classroom activities	Appears uninterested in students and classroom activities
Is cheerful, optimistic	Is depressed, pessimistic; appears unhappy
Is self controlled, not easily upset	Loses temper easily, is easily upset.
Likes fun, has a sense of humor	Is overly serious, too occupied for humor
Recognizes and admits own mistakes	Is unaware of, or fails to admit own mistakes
Is fair, impartial, and objective in treatment of students	Is unfair or partial in dealing with students
Is alert, appears enthusiastic or eager	Is apathetic/indifferent, dull; appears bored
Is patient	Is impatient
Shows understanding and sympathy in	Uses ironic remarks, or shows lack of

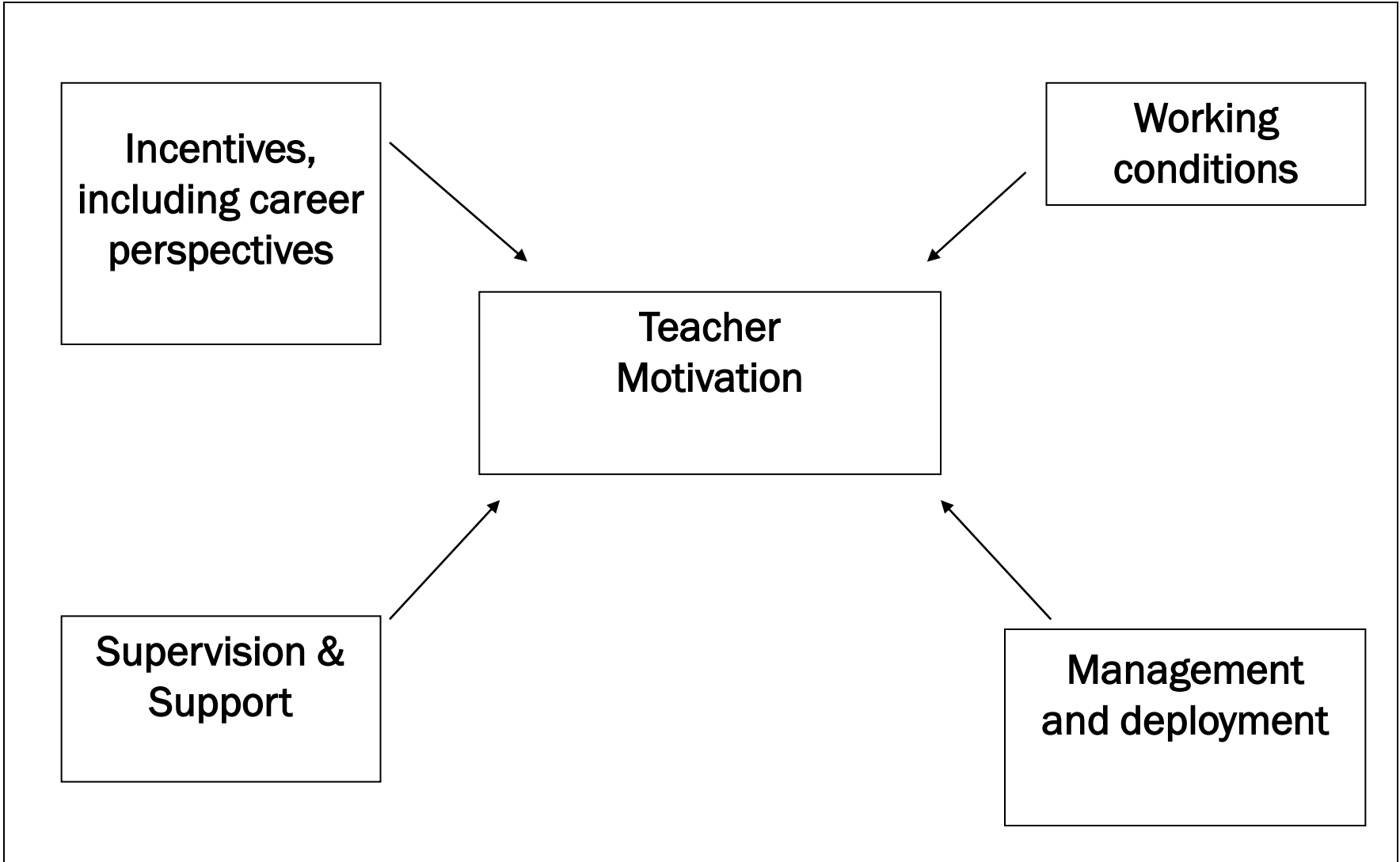| Is friendly and well mannered in relation with students	Is aloof or detached and removed in relations with students
Helps students with personal as well as educational problems	Seems unaware of students' personal needs and problems
Commends effort and gives praise for work well done	Does not commend students; is disapproving, hyper-critical/fault-finding
Accepts students efforts as sincere	Is suspicious of pupil motives
Anticipates reactions of others in social situations	Does not anticipate reactions of others in social situations
Encourages students to try to do their best	Makes no effort to encourage students to try to do their best
Classroom procedure is planned and well organized	Procedure is without plan, disorganized.

Anticipates individual needs	Fails to provide for individual differences and needs of students
Stimulates students through interesting And original materials and techniques	Uninteresting materials and teaching techniques used
Gives clear, practical demonstrations and Explanations	Demonstrations and explanations are not clear and are poorly conducted.
Is clear and thorough in giving directions	Directions are incomplete, vague
Encourages students to work through their own problems and evaluate their accomplishments	Fails to give students opportunity to work out their own problems or evaluate their own work
Gives help willingly	Fails to give help or gives it unwillingly

Factors with an Impact Teacher Effectiveness

Incentives	Working conditions

Motivation

Teacher effectiveness

Supervision & professional Support	Instructional leadership & Management

Knowledge (Subjects & Methods)

Qualifications	Initial and ongoing training

- # Factors Determining Teacher s' Motivation

A Framework for Analyzing School Functioning

Environment

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┌─────────────────────────┐
│       Educational        │
│      Administration      │
└─────────────────────────┘

┌─────────────────────────────┐
│ Relations with Administration │
└─────────────────────────────┘
              │
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SCHOOL

Quality of the teaching force	Relations with the school/Leadership & mgt	
Material teaching/learning conditions	CLASSROOM	Results
Pedagogical conditions	Teaching/learning process	
Pupil composition		

Relations with parents

Characteristics of the locality
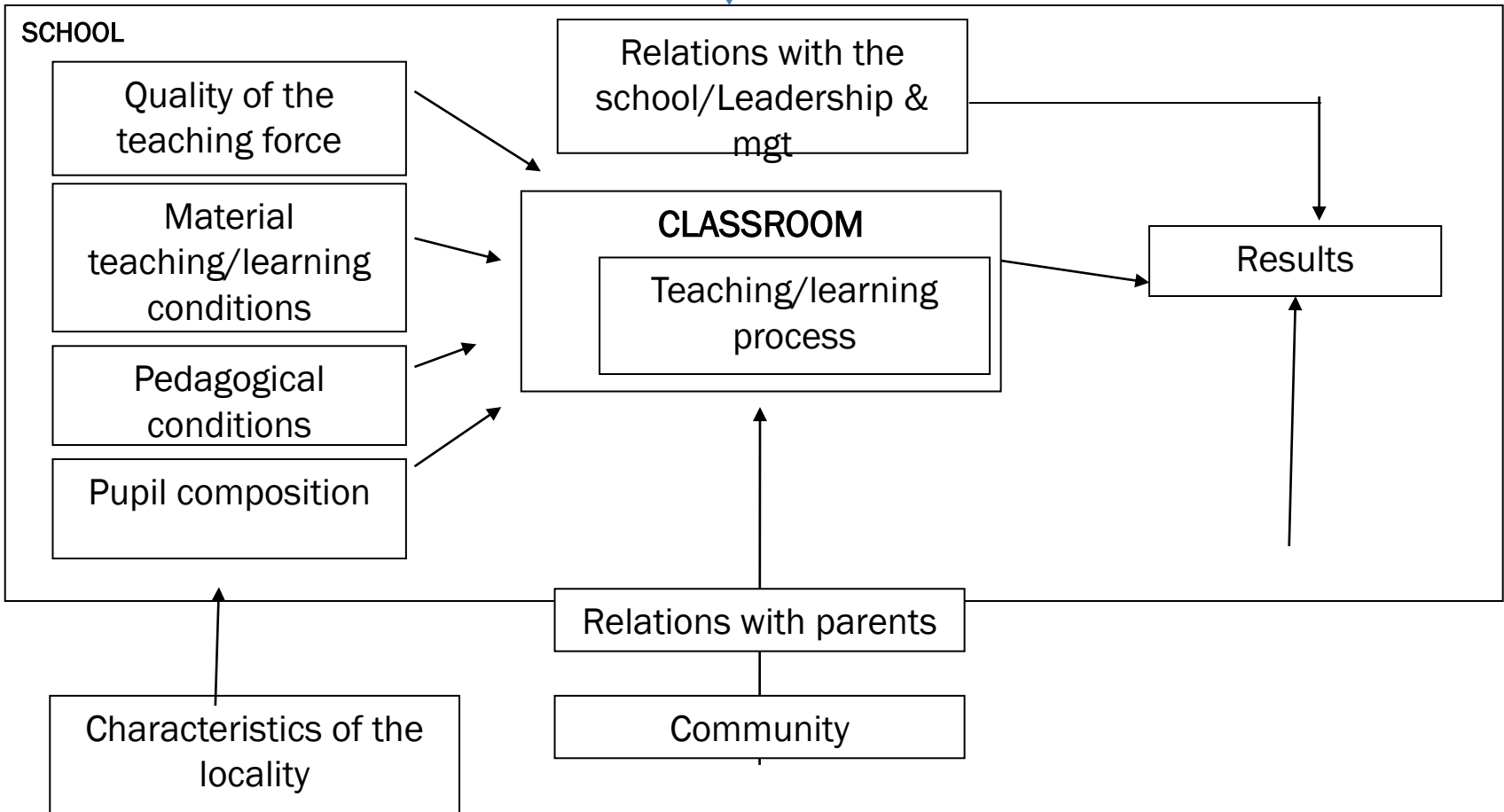
Community

Alignment Model (Components of TL Process)

- Context
- Instructional Components
- Communication Strategies
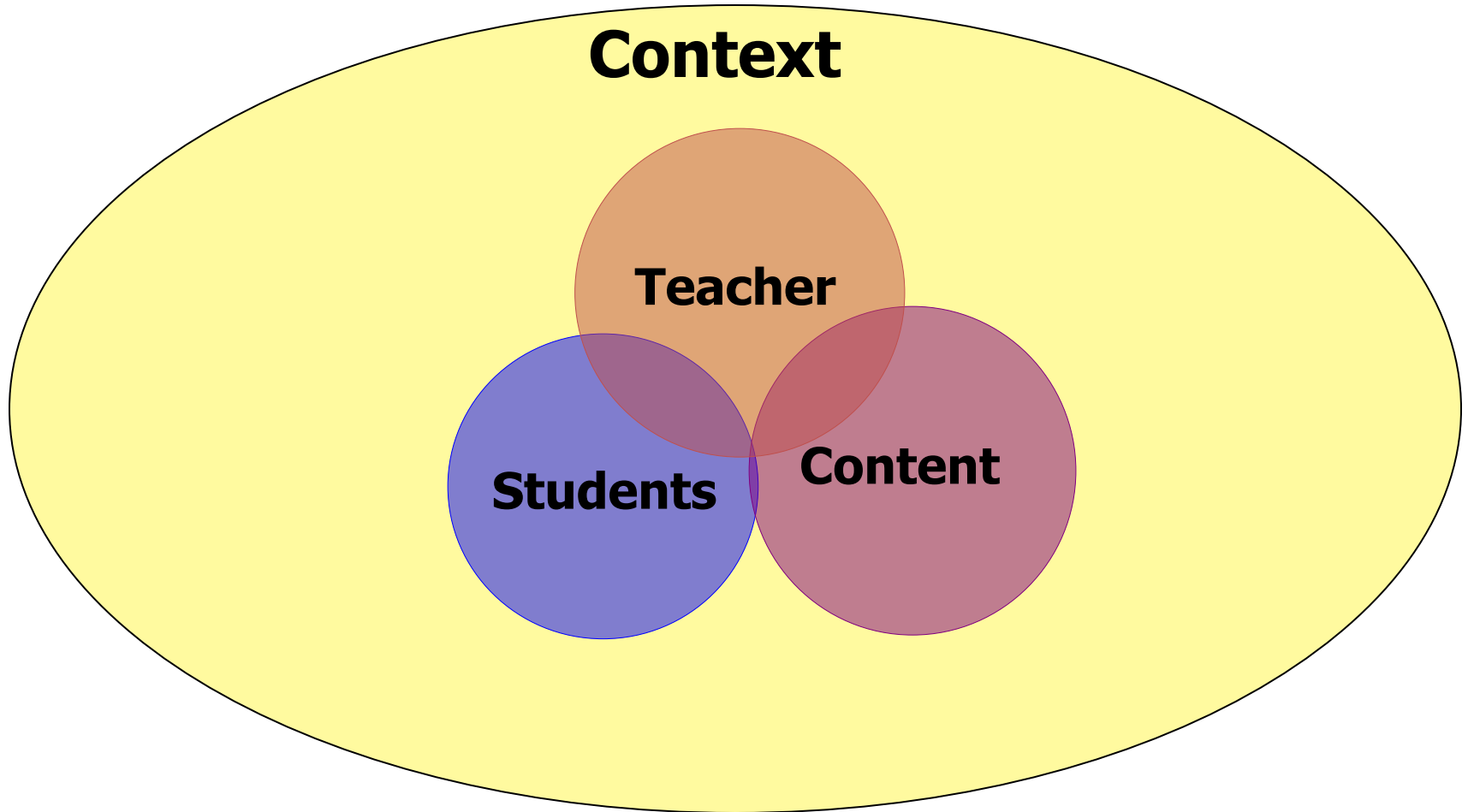
Elements: Context
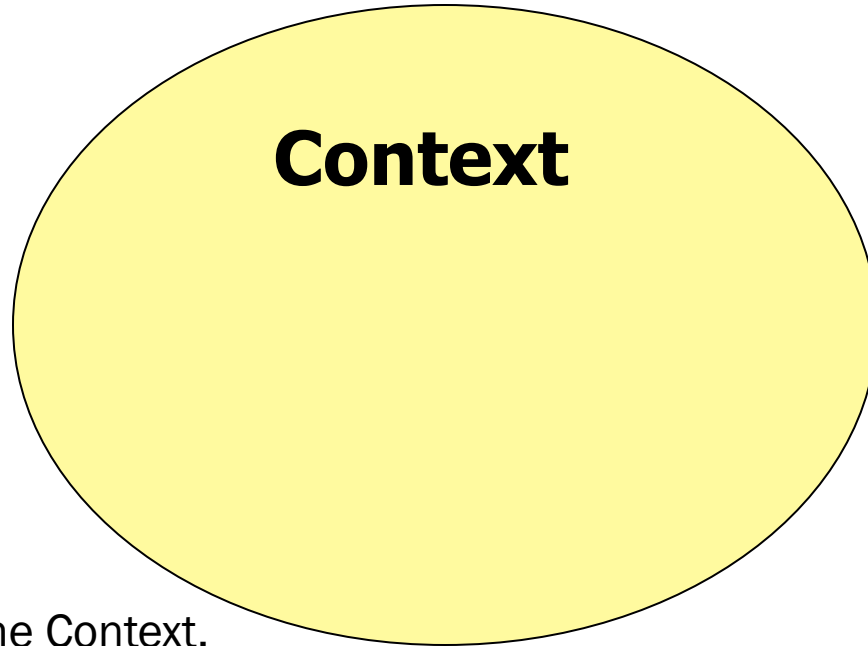
Context

The first element is the Context.

Context refers to the circumstances or setting in which the course exists: the context includes physical, social, instructional, or societal factors that affect how the course is taught and even what is taught.
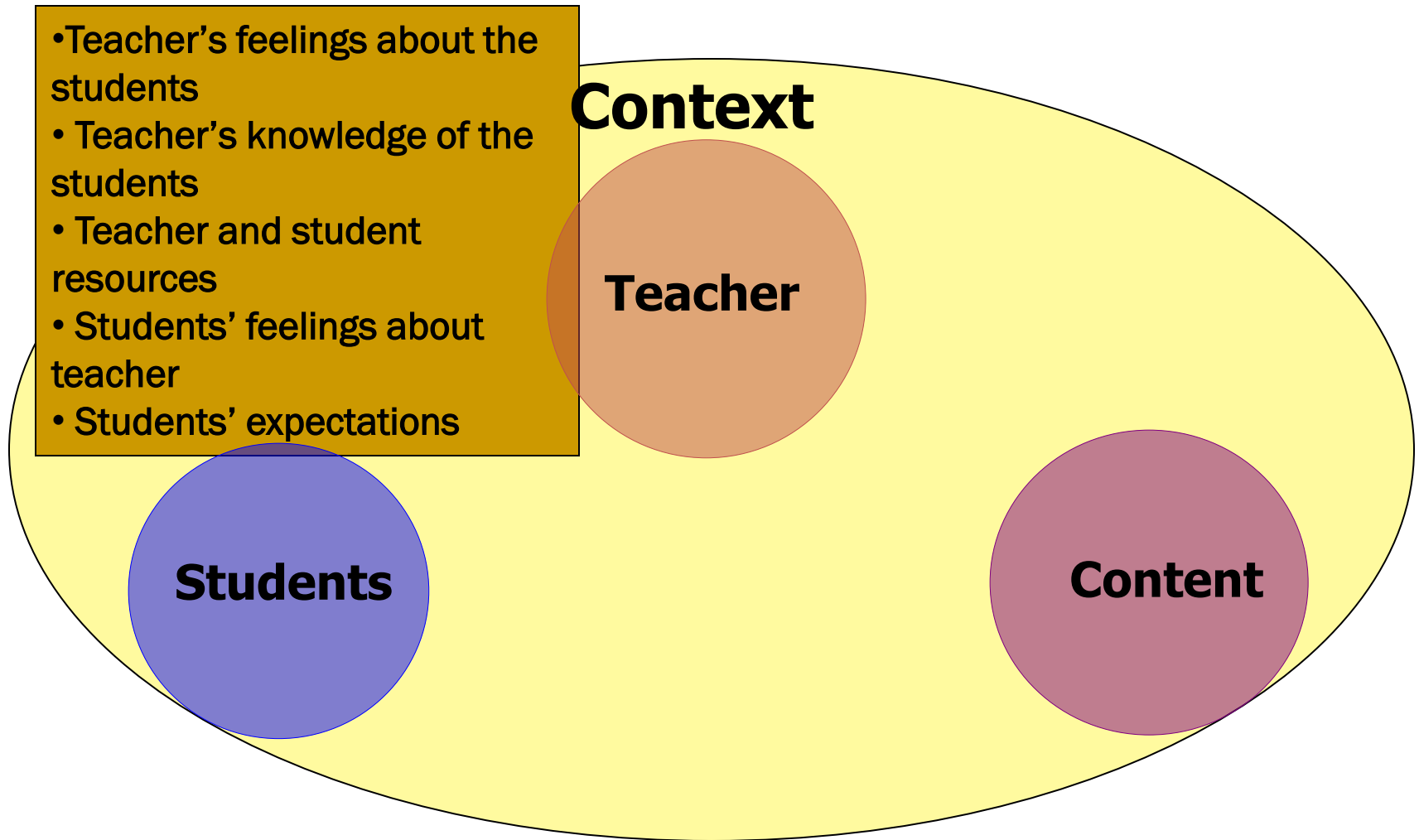
Contextual factors that can influence effective teaching include:

- ✓ **Sociopolitical events**: **For example**, if there is an ongoing war, then students and teachers may be depressed and stressed.
- ✓ **Cultural factors**
  - • **Language:** For example, if the instructional language is a second language for some or all students, then that can impeded learning.
  - • **Socioeconomic issues**: For example, poverty may prevent students from obtaining materials.
- ✓ **Institutional differences:** For example, the cultural norms within an institution may impact the relationships between students-teachers and students-students.
- ✓ **Instructional factors**: For example, if standardized exams are required for certification in a profession, this will influence the content that is taught.
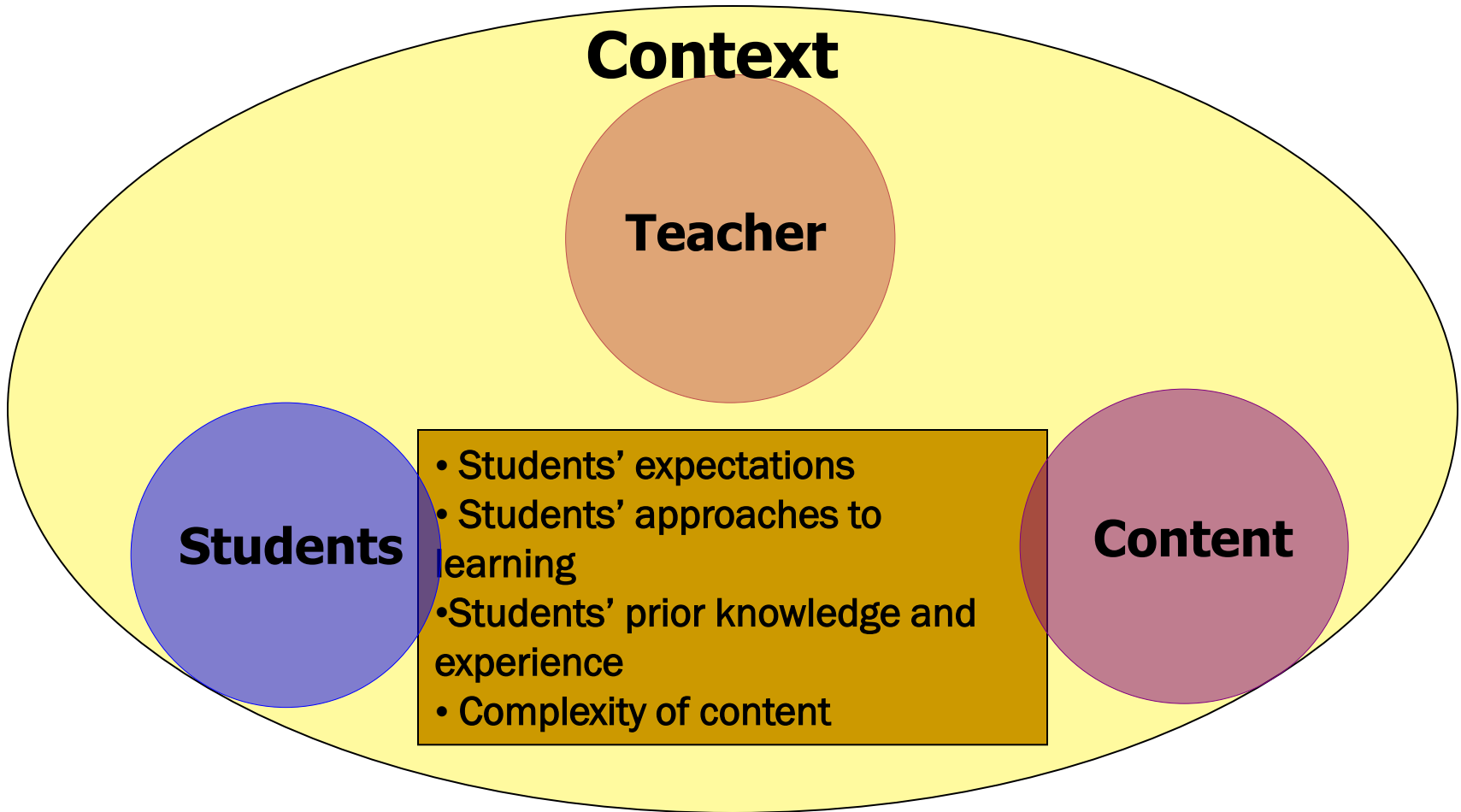
Element:
Instructional Components

Context

Teacher

Students

Content

Factors affecting teacher's and student relationship

Context

Teacher

Students

Content

- Teacher's feelings about the students
- Teacher's knowledge of the students
- Teacher and student resources
- Students' feelings about teacher
- Students' expectations

Factors affecting the student's relationship with the content might include:

Context

Teacher

Students

Content

- Students' expectations
- Students' approaches to learning
- Students' prior knowledge and experience
- Complexity of content

Factors affecting the teacher's relationship with the content

Instructional Components

Context

Teacher

Students

Content

- Teacher's feelings about the students
- Teacher's knowledge of the students
- Teacher and student resources
- Students' feelings about teacher
- Students' expectations

- Teacher's mastery of the content
- Teacher's feelings about the content
- Teacher's strengths
- Complexity of the content

- Students' expectations
- Students' approaches to learning
- Students' prior knowledge and experience
- Complexity of content
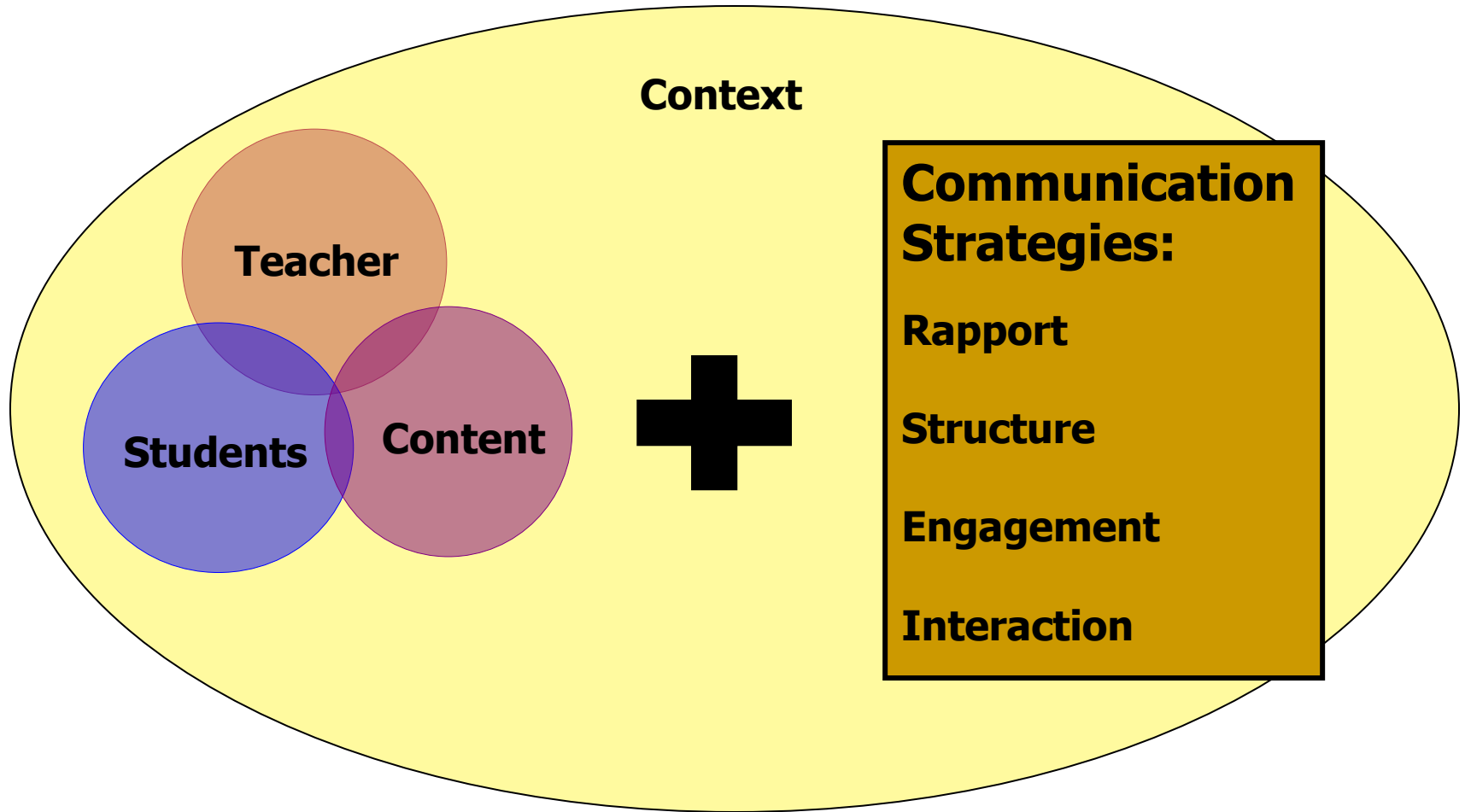
Communication Strategies

The third element of the Alignment Model is '*Communication Strategies*'. Communication Strategies' fall into four categories:
- Rapport – Mutual respect
- Structure – Presentation of material/content
- Engagement – Motivation and stimulation of students
- Interaction – Encouraging multidirectional communication

These four categories are essentially behaviors that the teachers performs to help align the three Instructional elements in order to achieve effective teaching.

Alignment

Context

Teacher

Students Content

+

Communication Strategies

=

Aligned
Teacher
Students
Content

Effective Teaching and Learning
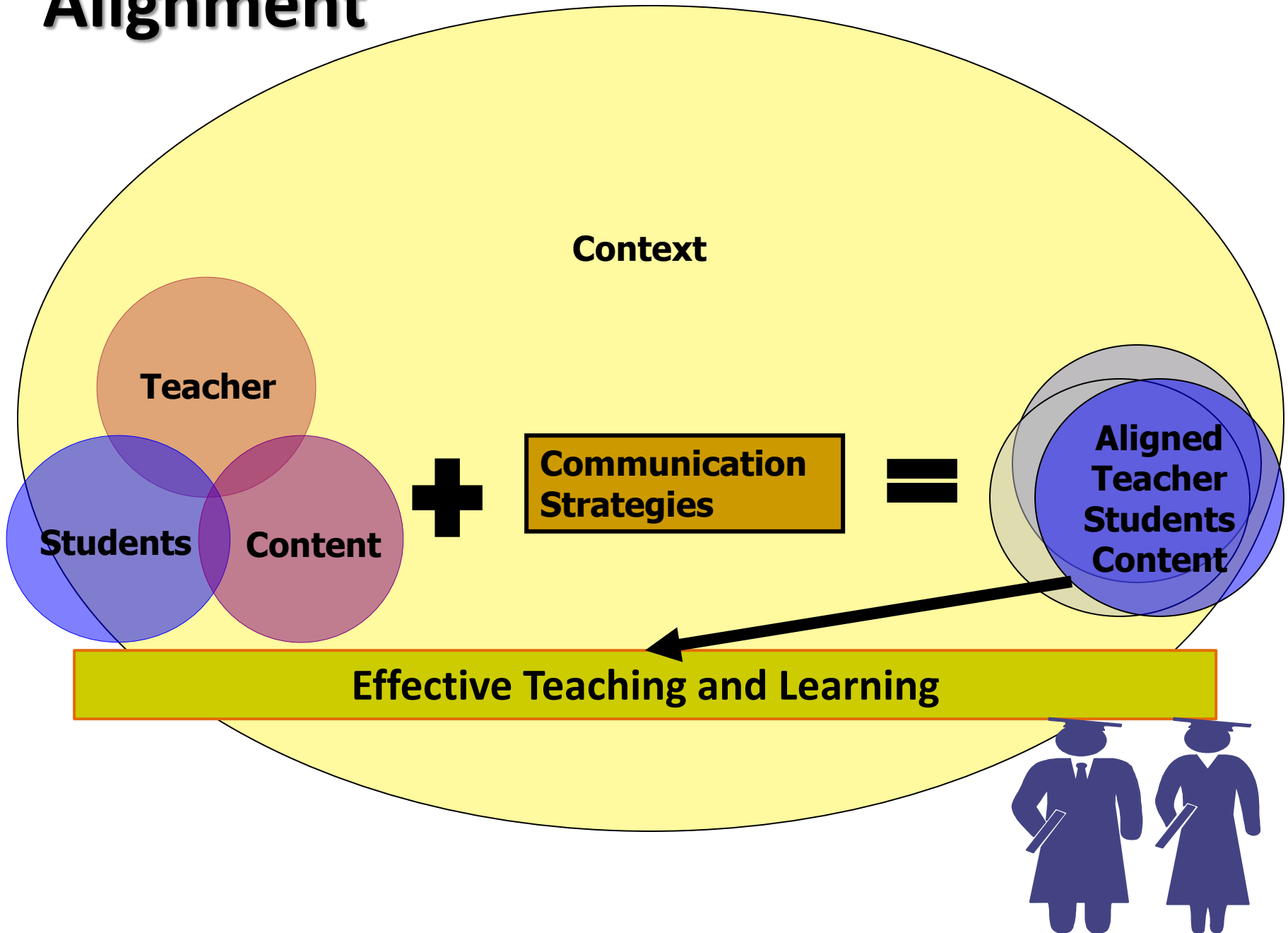
An understanding and acknowledgment of the interrelationships between the Instructional elements (Students, Teachers, and Content) and consistent and comprehensive application of the communication strategies (rapport, structure, engagement and interaction) results in alignment of the elements and ultimately; effective teaching and learning.

Note that:

- All elements are related and one is not more important than the others

- The focus of the model is on the *interrelationships* of the elements

- There is no single 'right way' to teach. Many strategies (and combinations of strategies) exist to achieve effective teaching

Note that

- The focus of teaching is on student learning
- Periodic and ongoing reflection is important
- Communication is essential

Principles of teaching

Principles of teaching are generalized statements about teaching activities, which govern the role of the teachers and students both inside and outside the classrooms. These principles have the following features:

1. universal;
2. essential;
3. compulsory;

✖ **Common Principles of teaching**

➕ The principle of planning lessons in line with the curriculum;

➕ The principle of linking school learning activities to social life;

➕ The principle of verbalization in instruction

➕ The principle of making instruction clear by using different instructional media that appeal to the different senses;

- The principle of recognizing individual differences in teaching.

  "If a doctor, lawyer, or dentist had 40 people in his office at one time, all of whom had different needs, and some of whom didn't want to be there and were causing trouble, and the doctor, lawyer, or dentist, without assistance, had to treat them all with professional excellence for nine months, then he might have some conception of the classroom teacher's job." - **Donald D. Quinn**

- The principle of uniting instruction with scientific findings and procedures

- The principle of integrating different subject areas;

- The principle of the facilitation role of the teacher and the independent activities of the learner;

- The principle of making lessons understandable
  - Presenting lessons from the known and proceeding to the unknown;
  - Starting lessons from the simple and proceeding to the complex;
  - Presenting lessons from easy to the difficult;
  - Starting from the concrete and proceeding to the abstract;
  - Starting from the whole and proceeding to the parts and the vice versa.
  - Starting with the immediate and proceeding to the remote;
- The principle of applicability and durability of the results of learning;
- The principle of seeking economy of efforts;
- The principle of defining the objectives of the lesson;

- Understanding Students' Learning Styles

- *The picture shows that each learn differently.*
- The teaching approach of the teacher was not in alignment with the learning styles of the students.
  - When this occurs, it is not only frustrating for everyone, but the communication process breaks down and learning fails.
- Some people learn better alone. Others progress best in a group. Some students will remember every word they hear and forget most of what they read; others will remember what they read while audio tapes seem to go in one ear and out the other. These are just a few examples of different learning styles.

Understanding Students' Learning Styles

- Students vary dramatically in the way they process and understand information.

- These differences, called "**learning styles**," refer to students' preferences for some kinds of learning activities over others.

- A student's learning style has to do with the way he or she processes information in order to learn and apply it.
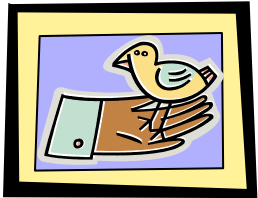
THREE LEARNING STYLES
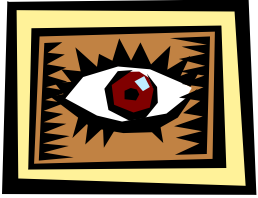
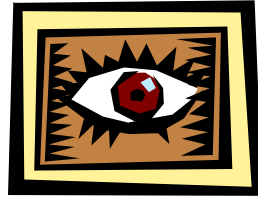- <u>VISUAL</u> : Learn by watching, observing and reading.

- <u>AUDITORY</u>: Learn by hearing and speaking.

- <u>TACTILE/KINESTHETIC:</u> Learn by moving, touching, doing and practicing.

Visual Style

Visual students learn best by looking at things:
- They like to see pictures, illustrations, and drawings
- They think in images
- They like to read books and directions
- They like to watch demonstrations
- They like to take notes
- prefer to study graphs, look at models and pictures, and take notes to review later
- They think they learn best from visual displays including diagrams, illustrated textbooks, videos, flipcharts, etc
- They tend to prefer sitting at the front of the classroom to avoid visual obstructions (ex. People's head)

- What are visual students like?
  - They talk quickly
  - They get impatient and often interrupt
  - They use visual phrases and paint mental images
  - They learn by seeing and imagining things

Auditory Style

Auditory students learn best by listening:

- They best learn through verbal lectures, discussions, talking things through and listening to what others have to say.
- Interpret the underlying meanings of speech through listening to tone of voice, speed, and other nuance.
- Often benefit from reading text aloud and using a tape recorder.
- Prefer to listen closely in class, read aloud when studying or during lectures in class, or confer with peers in class to confirm information
- They can close their eyes and just listen without falling asleep!
- They tend to speak more slowly
- They are natural listeners
- They tend to think in a linear fashion
- They tend to deliver organized conversation
- They like small group work
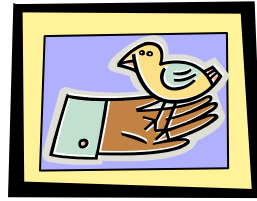
3. Tactile/Kinesthetic

- Tactile students love to move their bodies:
- Tactile students learn through doing, practicing, touching, and moving
- favor subjects that allow them to work with their hands or handle the textures and shapes of objects as they apply their knowledge
- Learn best through a hands-on approach, actively exploring the physical world around them.
- Found it hard to sit for long periods and may become distracted by their need for activity and exploration
- They are the slowest talkers of all
  - They are slow to make decisions
  - They learn by doing and manipulating
  - They tend to be assertive

ACCOMMODATING LEARNING STYLES

- How am I supposed to accommodate all these different learning styles?!

Accommodating learning styles

- Get to know students
- Help students develop an awareness of their own learning styles so that they develop better study habits
  - Administer the learning style inventory on first day of class
- Vary your teaching methods and assignments so that all learning styles are addressed.
  - For example, making notes on a chalkboard to reinforce a spoken lecture, having students reflect and write following a hands-on activity, asking students to draw out a concept map which visually portrays how main points of lecture are related to one another.

Understanding Students' Learning Styles

- Low satisfaction or poor performance in a course or activity may be misinterpreted as lack of knowledge or ability, when it actually reflects difficulty with a particular style of learning.

- Students who understand their own styles are likely to be better learners, achieve higher grades, have more positive attitudes about their studies, feel greater self-confidence, and exhibit more skill in applying their knowledge in courses.

Understanding Students' Learning Styles

- Teachers who understand their students' learning styles
  - Are better able to adapt their teaching methods appropriately
  - Help students develop skills with a style of learning in which the student is weak
  - Help poorly prepared students develop their learning skills

Accommodating Learning Styles

- The most realistic approach is to help students develop an awareness of their own learning styles and varying your teaching methods and assignments so that no learning styles are totally disadvantaged.

TEACHING METHOD

- A teaching method is a method of instruction, or practices and procedures of teaching; e.g., lecture, role play, case study, group discussions, brainstorming, forced choice, etc.

- It is articular way of organizing pedagogical activities knowingly implemented according to certain rules in order to make learners reach specified objectives.

- Teaching-learning process may be dominated one or more of the methods :

  - Teacher's presentation methods;

  - Teacher – student' conversation methods;

  - Students' independent work methods.

Classification of Teaching methods
Generally speaking approaches to teaching are classified into depending on:

1. The basis of knowledge or theory(epistemology)
2. The nature and degree of involvement of students and teachers
3. Teaching objectives.

Direct	Indirect
Conventional	Non conventional
Traditional	Modern
Teacher Centered	Student centered
Methods don't allowing autonomous learning	Methods allowing autonomous learning

Teacher Centered

- instruction in which the teacher's role is to present the information

- The teacher takes the role of dictator.

- The focus is on the subject matter, not on the process of learning.

- The learners passively listen. Students' role is passively receiving information transmitted by the teacher.

- Important elements are receiving information, digesting it and reproducing the memorized facts to pass the test and achieve the grade.

- In most cases it is **textbook-based learning.**

Student-centered

- Students work in both groups and individually to explore problems and
- Students are active knowledge seekers rather than passive knowledge recipients.
- Students construct their learning
- Focuses on the learner
- It is based on the constructivist model/requires active input from students
- The teacher facilitates the students' learning
- Learning happens when students use what they knew and then move beyond it.
- Students do not merely repeat/rephrase the information; they learn how to learn through discovery, inquiry, and problem solving.
- They learn how to **find the right information**

Method	Teacher's Role	Students Role
Mass instruction Conventional lecture, video presentations, educational broadcasts, mass practical works, etc	Traditional expository roles, controller of all aspects of instruction process (pace, style, etc).	Largely passive, virtually totally dependent on what they get from the teacher, video, demonstrator, etc.
Individualized learning Directed study of texts, study of open-learning materials, self instruction, assignments, projects, etc.	Producer/manager of learning resources, tutor and guide, providing support for students when required	Largely responsible for their own learning. Individual students control their own pace of learning, depth of study, etc.
Group learning: Buzz sessions, class discussions, seminars, group tutorials, games & simulations, group projects, etc.	Organizer of group activity, facilitator of learning experience (largely supportive).	Largely responsible for their own learning but also strongly dependent on one another's preparation & interaction.

Teaching Methods

- Demonstrations
- Site visits
- Role Play
- Panel
- Video
- Debate

- Lecture
- Large Group Discussion
- Small Group Discussion
- Brainstorming
- Case Study, etc

Opening Question:

- Take a moment to reflect on your experience with *active learning*.

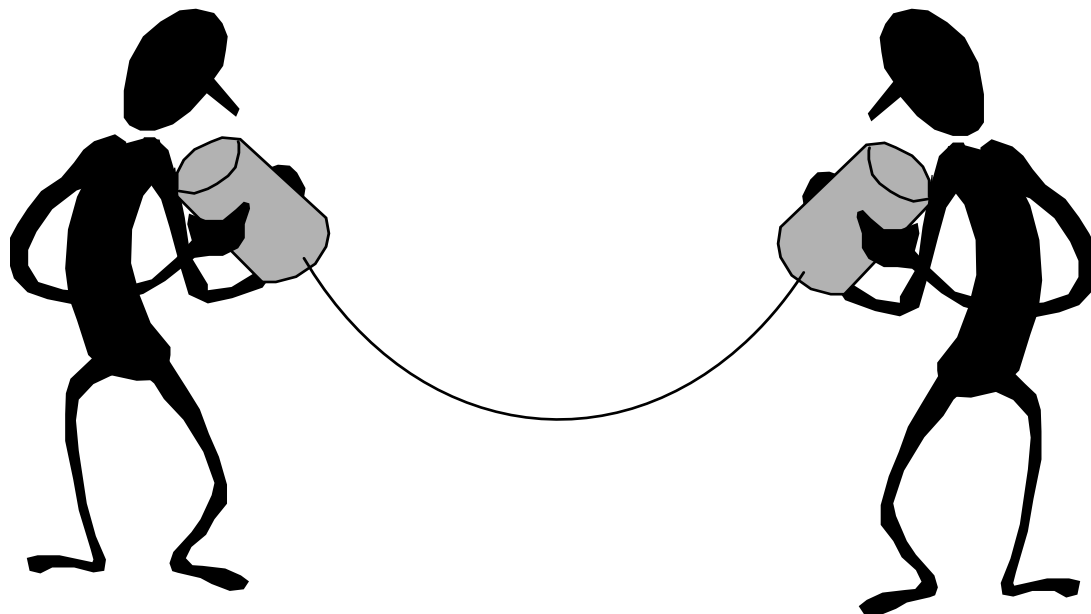- Come up with a positive and a negative example. Jot them down.

Turn and Talk

You have jotted down your reflections and experiences with active learning.

Now, turn to a partner and share your knowledge and experience.

Do you have anything to share with the class?

What is Active Learning?

Two things you would like to know about active learning are:

1. _____.
2. _____.

Basic Assumptions

1) Learning is by nature an active endeavor, and

2) Different people learn in different ways.

3) Just because you've said it doesn't mean students have learned it.

Meyers & Jones (1993)

What is Active Learning?

- Learning in which students, "by acting on objects and interacting with other people, ideas, and events, construct new understanding"

(Luckner & Nadler, 1997, p. 13)

- "Learning is conceived of as something a learner does, not something that is done to a learner."

(Johnson, Johnson, & Smith, 1991, p. 7)

Active learning

- **Active learning**

  ➢ techniques where students do more than simply listening to a lecture.

  ➢ Students must read, write, discuss, or be engaged in solving problems. Most important, to be actively involved, students must engage in such **higher-order thinking tasks as ANALYSIS, SYNTHESIS, and EVALUATION**. Within this context, it is proposed that strategies promoting active learning be defined as **instructional activities involving students in doing things and thinking about what they are doing**

What is Active Learning?

- students **solve** problems, **answer** questions, **formulate** questions of their own, **discuss**, **explain, debate**, or **brainstorm** during class, etc

- Students do more than listening to teachers

- Problem-Based Learning

  Cooperative Learning

  ACTIVE LEARNING

  Learn By Doing

  Inquiry-based learning
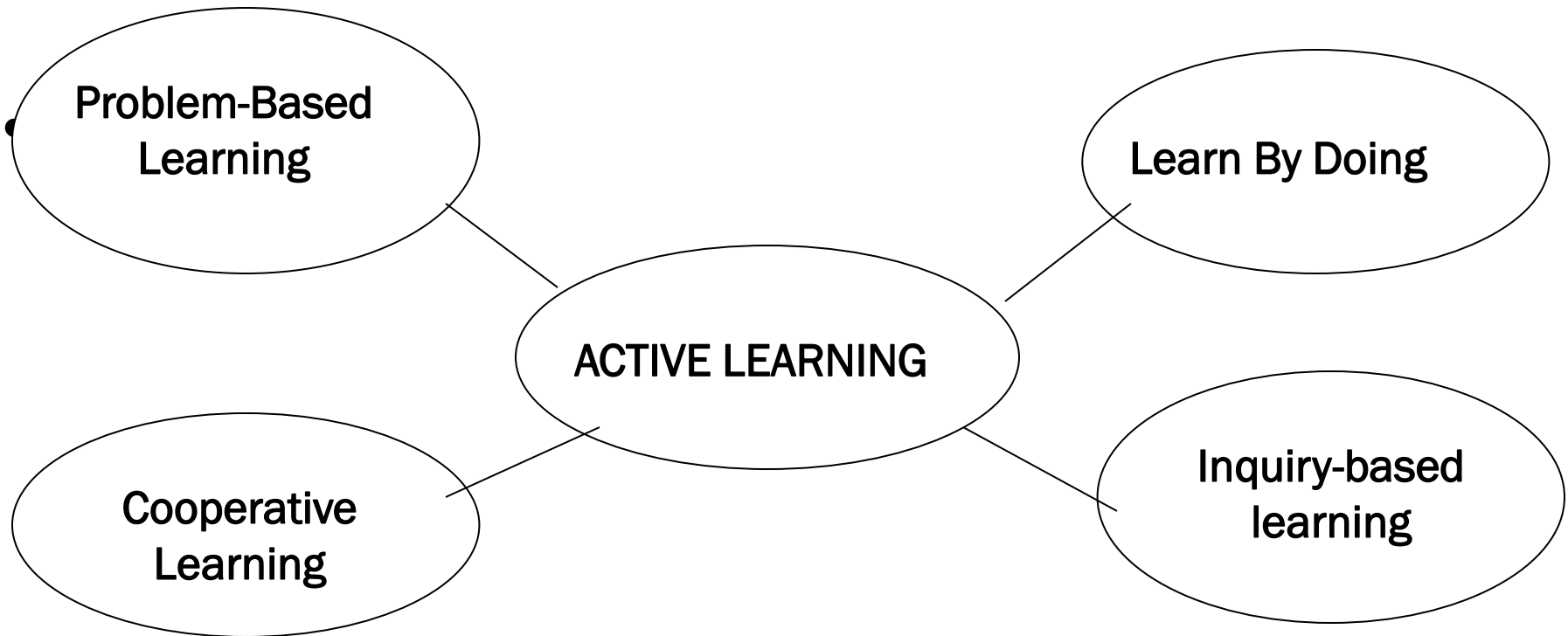
Con't

✖ Is not a single learning method

✖ An approach assimilated from different teaching method

✖ Maximize the role of students in learning

✖ Students teach themselves in the process

✖ Students take responsibility in their learning

✖ Students work together that help them to build social skills

✖ Create excitement in the classrooms

✖ Creates positive & refreshing working environment

✖ Changes the role of students from spectator to role player

✖ Initiate students self-reflection

Compare/Contrast

PASSIVE LEARNING

- poorer retention
- lower-order thinking
- teacher-centered: same info/same pace
- lower attention-level
- student isolation
- emphasis on memorization

ACTIVE LEARNING

- better retention
- higher-order thinking
- student-centered: prior knowledge and pacing
- greater student attention - students involved
- encourages collaboration
- emphasis on process

What is Active Learning is <u>NOT</u>?

✖ Learning is not merely the acquisition of knowledge where students receive information from teachers and regurgitate/repeat it

 ✖ **This is memorization** ⟷

Research suggests that active learning is an exceptionally effective teaching technique. Regardless of subject matter, when compared to traditional teaching methods (lecture), students learn more material, retain the information longer, meet other students, and enjoy class more.

Students are not empty vessels.
✓ **Students** come with **previous experiences**.
✓ Students will learn better if the new information is based on previous knowledge and insights.

"Learning is not a spectator sport. Students do not learn much just sitting in classes listening to teachers, memorizing prepackaged assignments, and spitting out answers. They must talk about what they are learning, write reflectively about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves (Chickering & Gamson, 1987)."

The techniques

Collaborative/Cooperative Learning

- Collaborative learning is one of the most powerful tools instructors have in higher education.

- Students get a chance to speak, share personal views, and develop the skill of working with others.

- Requires that group members work together to complete a given task.

Think-Pair Share

- Students are given time to think about a topic, turn to their neighbor for a short discussion, and then share the results with the rest of the class.

- Can be used in any size classroom

- Works well with any subject or topic

- Useful in moving traditional lectures to active learning even in very large classes

Classroom Assessment Techniques (CAT's)

Students are given a few minutes during, or at the end, of a class to answer questions such as: "What was the most important thing you learned today?")

Brainstorming

- A simple technique that can involve an entire class in a discussion

- The instructor introduces a topic or problem and then asks for student input.

- Works well with pair-share

- Let's try a brainstorm!!
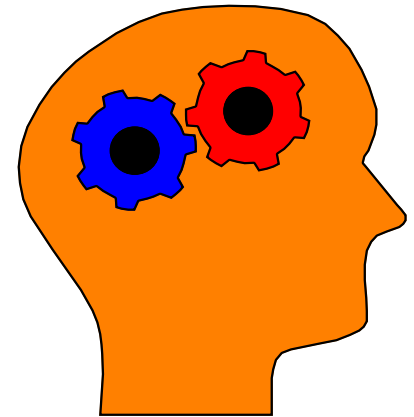
Situations for use:

- **Generate ideas (quantity is more important than quality)**
- **Students have some level of experience**

Brainstorming Steps

- Pose question to class
- Generate ideas with group
- Accept all ideas (do not criticize)
- Go back to summarize
- Discard "unacceptable" or unworkable ideas
- Determine the best solution(s)
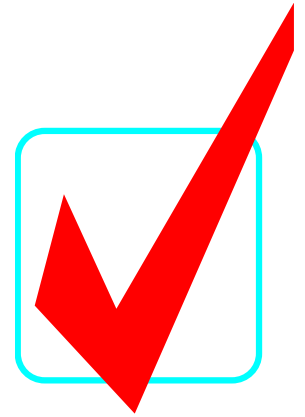
Small Group Discussion

- Increased participation

- Good for generating ideas

- Cooperative activity (students learn from each other)

Small Group Discussion

Also Called:

- Buzz Groups

- Huddle/cluster Groups

- Phillips 666

  – 6 people per group

  – 6 ideas to be generated

  – 6 minutes

Debates

- Debates staged in class can be effective tools for encouraging students to think about several sides of an issue.

- Debates can vary from simple, in-class presentations to more elaborate work over a period of time and with a group.

- Debates can be particularly powerful learning tools when students have to switch sides.

- A debate is an organized discussion on an issue which is usually controversial.

Role Play

- Most people have heard that you really don't know something until you can teach it. Through role play, students actually experience the material they are studying.

- Role play can be simple to complex depending on the course, level of students, and time given for student preparation.

One-minute Paper

✖

students tell you :
(1) what they learned
(2) what's still confusing

✖ Summarize the most important points in today's lesson.

Case Studies

- Instructors who use case studies find real-life stories or problems that prompt students to integrate their classroom knowledge with their understanding of real-world situations, actions, and consequences.

- Instructors can develop case studies to fit the topics and material being studied.

Problem Based Learning

- **Problem-based Learning**: PBL is any learning environment in which the problem drives the learning. PBL is an important part of Team based learning.

Writing Assignments

✖ Provides students with the opportunity to think about and process information

✖ Many options for writing activities including reflections on material learned.

✖ Provides valuable feedback to instructor and student

- Be specific — ask students to
  - analyze
  - contrast
  - describe
  - justify
  - summarize
  - compare
  - define
  - evaluate
  - prove
  - synthesize

Games

- Games related to a subject can easily be incorporated into the classroom to foster active learning and increased participation.
- Games might include matching, group competitions, solving puzzles, etc.

Service Learning

- Service-learning is an educational method that entwines the threads of experiential learning and community service.

- It meets educational objectives through real-world experiences, while tapping youths as resources to benefit their college and communities.

- Students can discuss and reflect on subject matter outside of the classroom and with others besides the instructor.

- **Mind Mapping**: a visual representation of ideas on any given topic. It is similar to a brainstorming and to a spider diagram but is more pictorial and more organized. This highly effective diagramming method illustrate thoughts, concepts, r/ships, associations and consequences all connected to a central hub representing the main idea. Unlike any other technique, mind mapping allows not only simultaneous organization of complex r/ships but also a concise, focused model of a central idea.

- **Crossover Group**
  – Students are divided into groups to discuss a special topic. After few minute, 2 members of the group move to another group to share ideas from their original group. After this, they again cross-over or move to another group. This will ensure that the information you want the student to learn, travels through the entire class**.**

- **Jigsaw-group.** In this technique you divide the class into groups. Each group is given specialist topic and each member of that group has to become an expert in that topic. After they have become expert, you separate the "specialist" groups and form new groups. The new groups are made up of one specialist from each of the original groups. Then they work together to teach each other the information they learned in their original group.

AFTER TWO WEEKS WE TEND TO REMEMBER ...

10% of what we read

20% of what we hear

30% of what we see

50% of what we see and hear

70% of what we say

90% of what we say and do

PASSIVE

ACTIVE

READING

HEARING WORDS

LOOKING AT PICTURES

WATCHING A MOVIE/VIDEOTAPE

LOOKING AT AN EXHIBIT

WATCHING A DEMONSTRATION

SEEING IT DONE ON LOCATION

PARTICIPATING IN A DISCUSSION

GIVING A TALK

DOING A DRAMATIC PRESENTATION

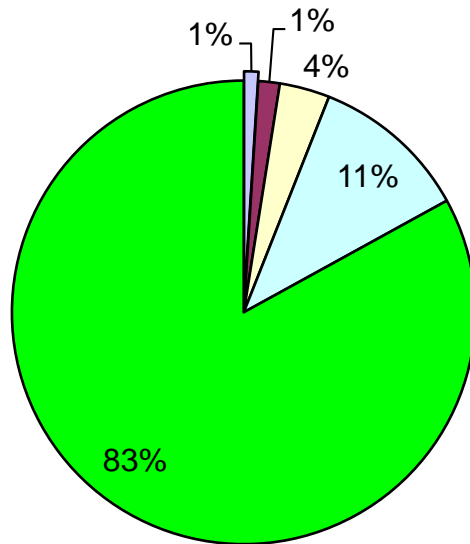SIMULATING THE REAL EXPERIENCE

DOING THE REAL THING

Adapted from: Edgar Dale *Audio-Visual Methods in Teaching*, Holt, Rinehart and Winston.

	remebering	forgetting
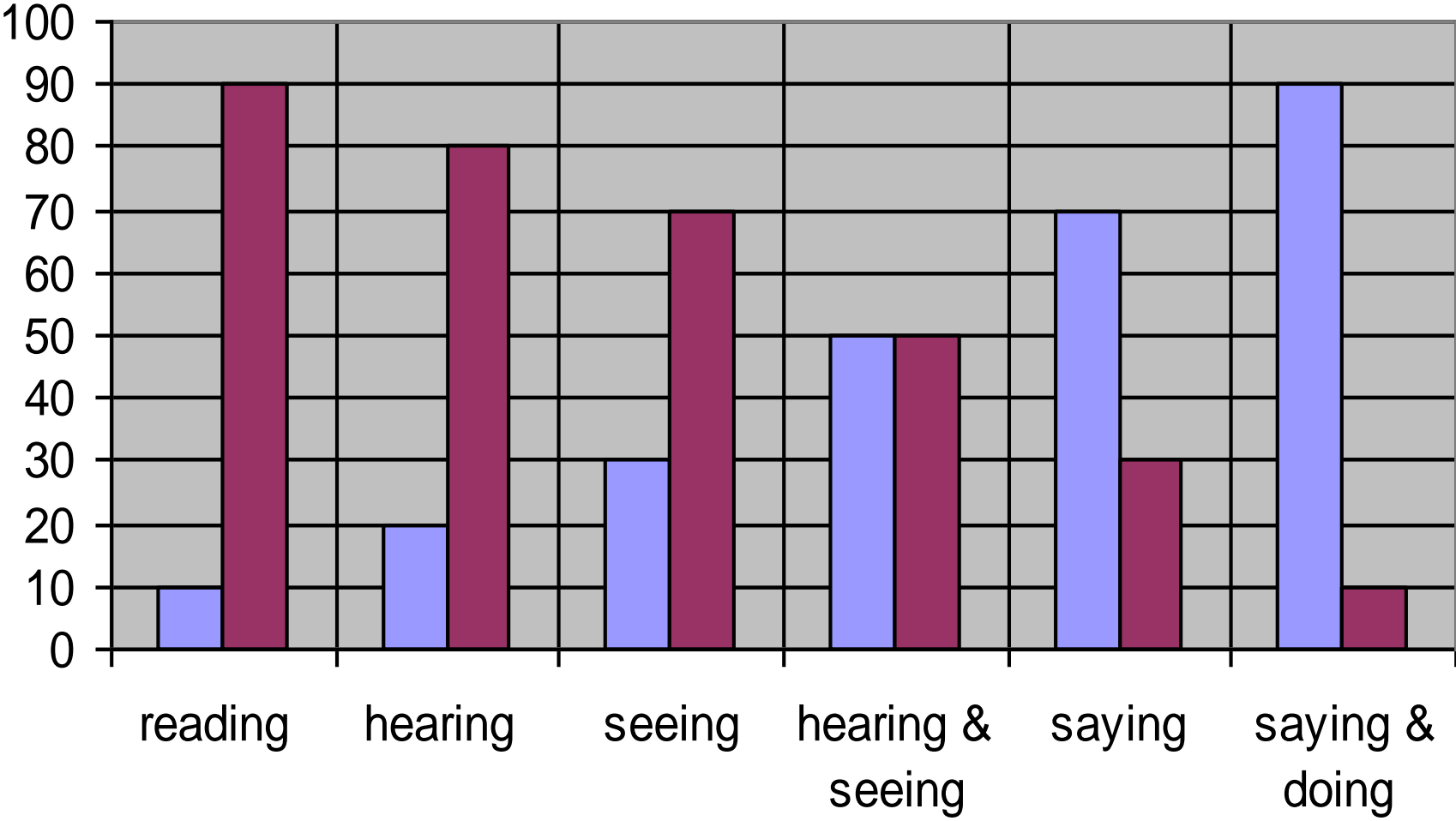
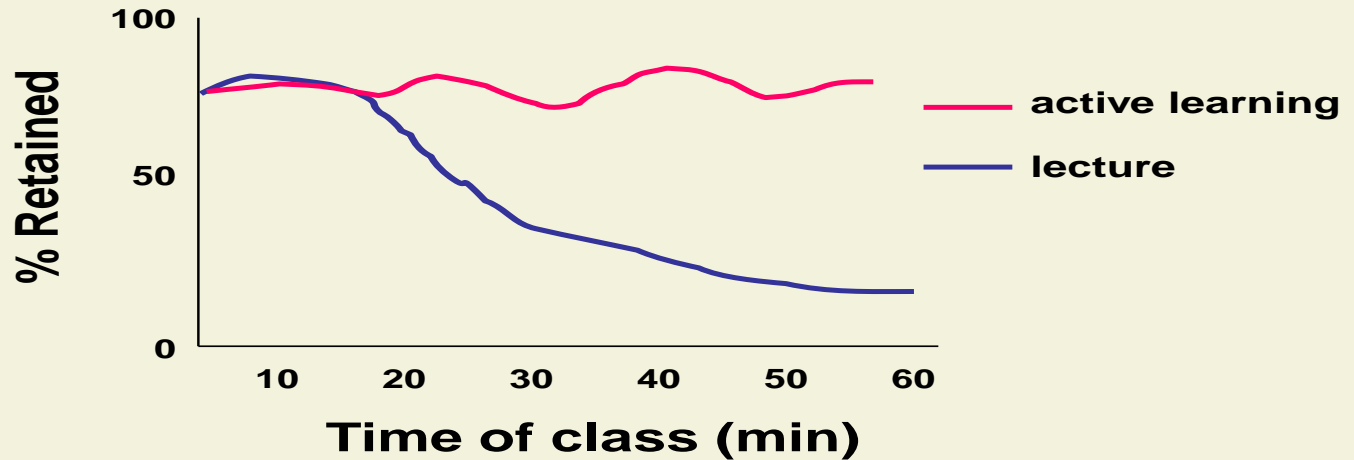**Contributions of our sense organs**

1%   1%
4%
11%
83%

What is Active Learning?

From: McKeachie, *Teaching tips: Strategies, research and theory for for college and university teachers,* Houghton-Mifflin (1998)

PMABS
PARTNERSHIP FOR MINORITY
ADVANCEMENT IN THE
BIOMOLECULAR SCIENCES

Retention of New Material
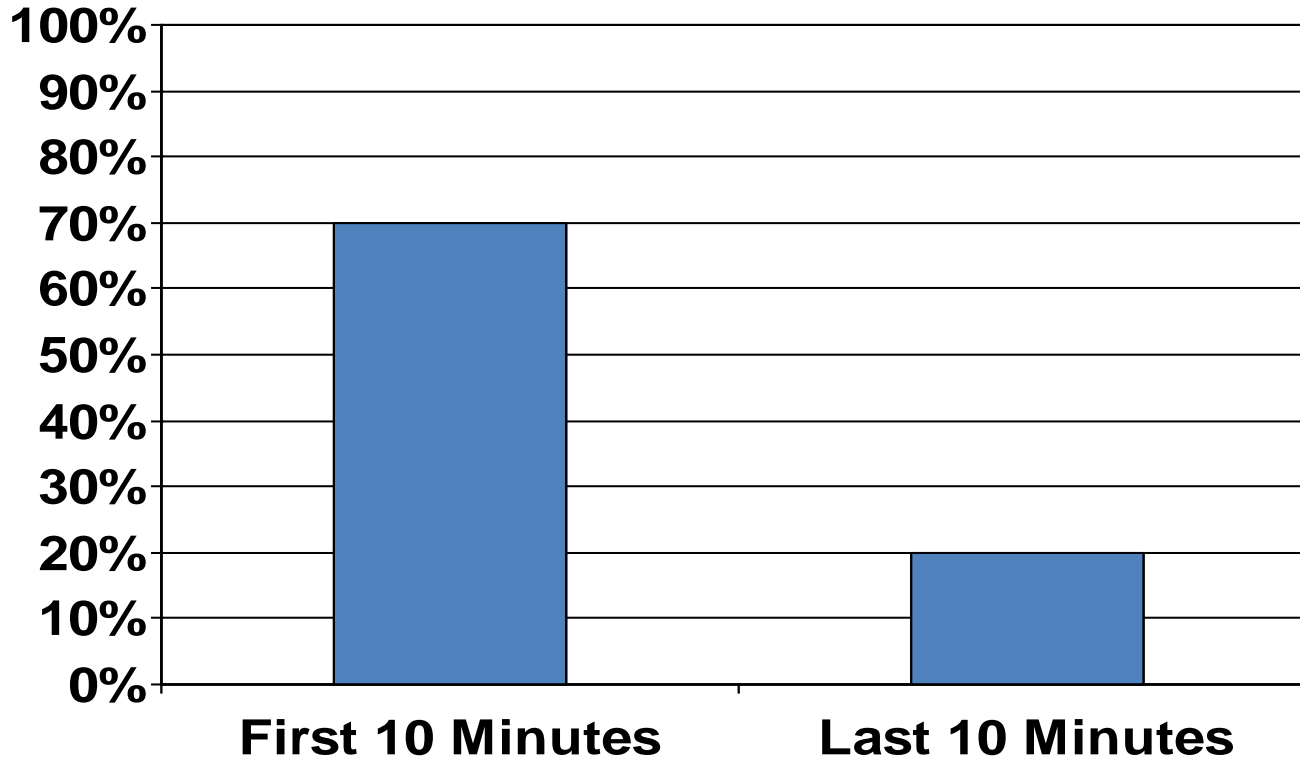
As lecture continues, retention of new material declines.

Source: McKeachie

Putting it simply…

✖ What I *hear*, I *forget*   (lecture approach)

✖ What I *see*, I *remember*

(demonstration)

✖ What I *do*, I *understand*

Chinese proverb

(hands on/ learner-centered)

Modified by Silberman (1996)

- What I hear, I forget.
- What I hear and see, I remember a little.
- What I hear, see, and ask questions about or **discuss** with someone else, I begin to understand.
- What I hear, see, discuss, and **do**, I acquire knowledge and skill.
- What I teach another, I master.

"Learning is more in seeing than in hearing; learning is more in doing than in seeing and hearing"

Barriers to Apply Active Learning Techniques

Common barriers to move away from traditional teaching to active learning strategies include:

– The powerful influence of educational tradition;

– Teachers self-perceptions and self-definition of roles;

– The discomfort and anxiety that change creates; and the limited incentives for teachers to change.

- But certain specific obstacles are associated with the use of active learning including:

  – Limited class time;

  – Possible increase in preparation time;

  – The potential difficulty of using active learning in large classes;

  – Lack of needed materials, equipment, or resources.

  – The fact that teachers' efforts to employ active learning involve risk--the risks that:

    – Students will not participate and use higher-order thinking, or learn sufficient content,

    – Faculty members will feel a loss of control, lack necessary skills, or be criticized for teaching in non-conventional ways.

Commonly Employed Teaching Methods

Lecture

- Good/Bad?
- Learning Guaranteed?
- Stimulating?

Teacher → Lecture - - → Students

-
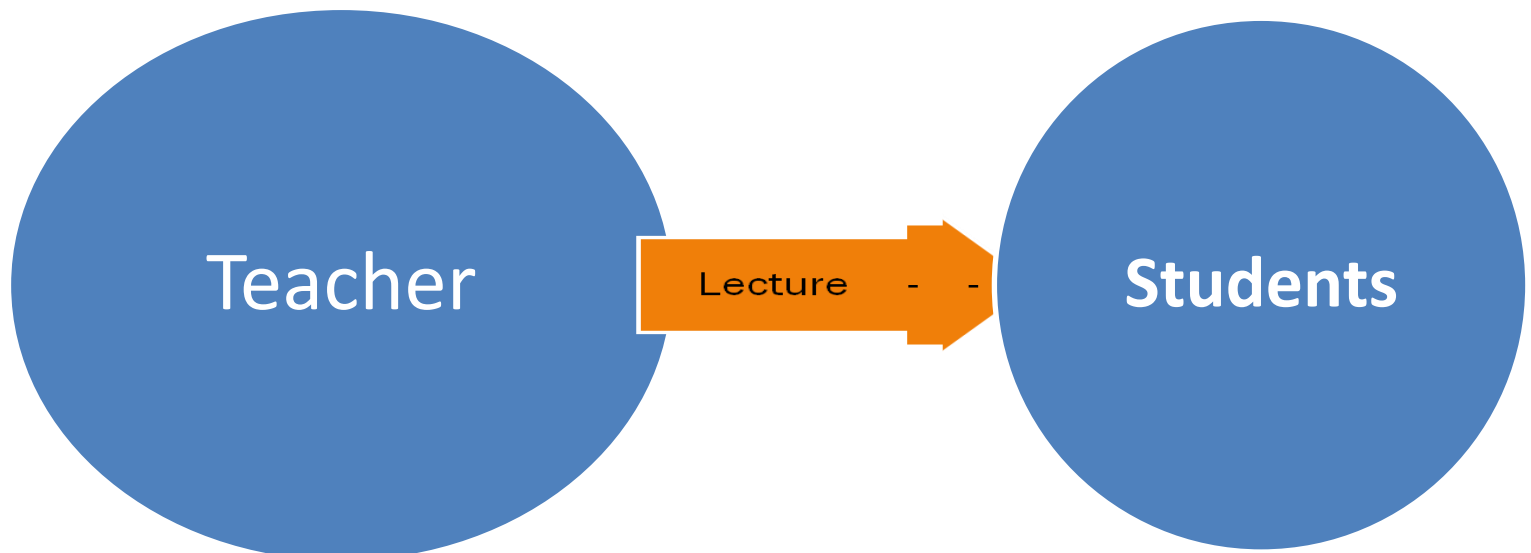
1. **Lecture method**;
  – a widely used and well-known method of imparting knowledge.
  – a speech; in others a presentation.
  – Telling is involved.
  – Interaction, if occurs at all, normally takes place at the conclusion of the lecture. Even then it is often limited to asking questions.

Advantages of lecture method:

- Provide unavailable information
- Convey large amounts of information
- Reach large audiences
- Maintain control
- Help auditory learners

Disadvantages of lecture method

✖ One-way communication.

✖ Largely inappropriate for practical subjects such as acquisition of skills.

✖ Passive students

✖ Inadequate feedback

✖ Flagging attention

✖ Poor retention

✖ Burden on lecturer

✖ harder time non-auditory learners

✖ Lectures assume homogeneity
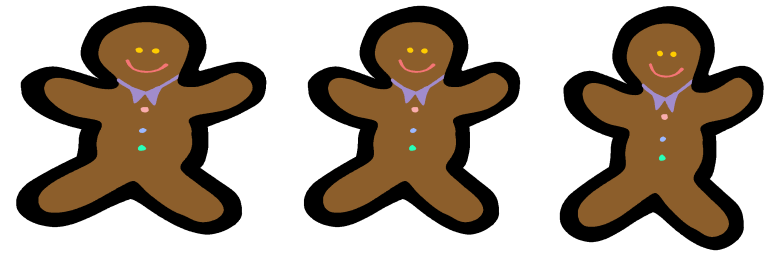
-Boring & tedious lecture

- some may day dream

- Sleeping is usually common during boring lecture

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Chalk and talk

Majority of the students may become dizzy/sleep during BORING LECTURES

- Students should go from
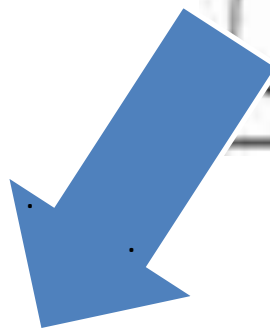
A general strategy when one uses lecture method:

- Begin the by a presentation of the outline. this involves introducing the topic and orienting students.
- Develop the lecture in logical fashion that pupil can follow.
- explain unfamiliar terms
- Augment yr lecture by examples and employing gapped lecture
- try to move easily and smoothly
- follow the outline
- use short and simple language sentences
- try to repeat the most important points
- avoid attempting too much; don't rush and try to check your speed

Important rules

❑ *Recap prior class*

❖ **Tell them what you'll tell them**

❖ **Tell them**

❖ **Tell them what you told them**

❑ *Tell them about next class*

Demonstration

- What is it?
  - ✓ Verbal Explanation + live display using apparatus/model
    - = Demonstration

-

	telling
Demonstration	
	Showing

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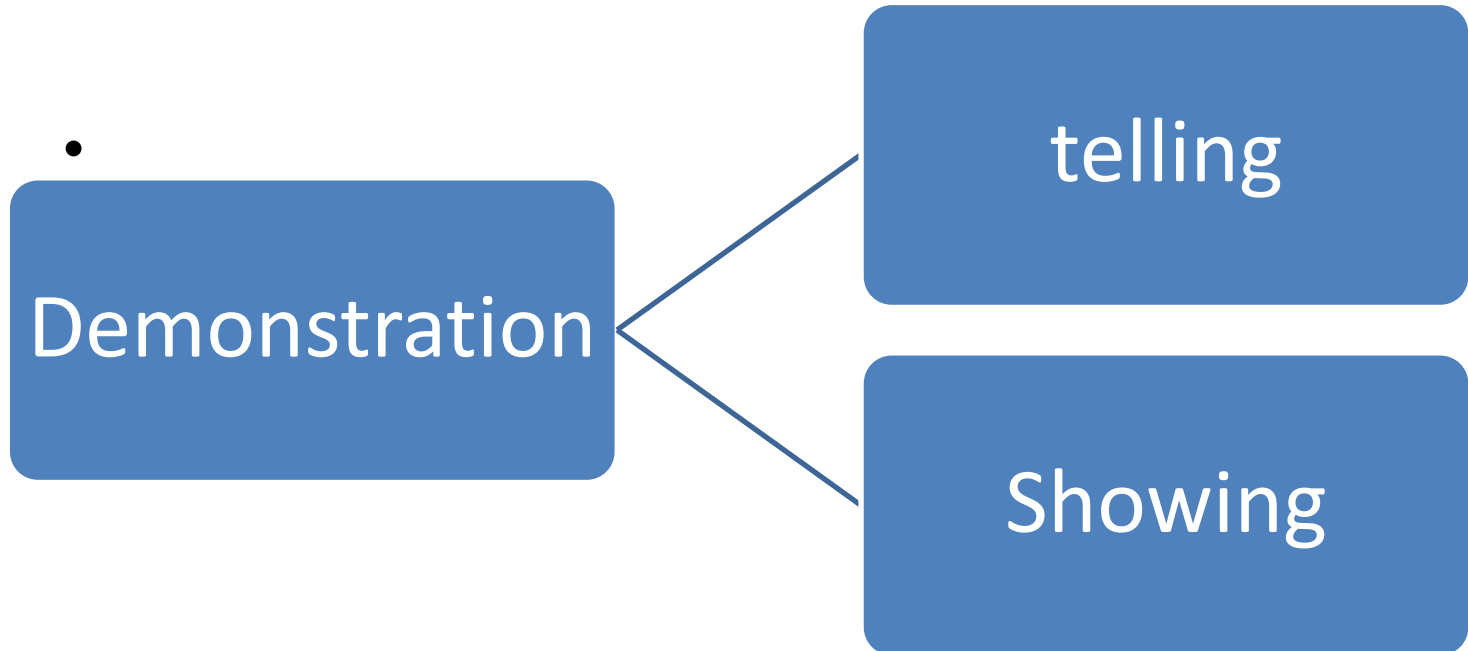
✖ Involves telling and showing trainees how something is to be done.

✖ It is highly visual as well as an oral method of teaching.

✖ a visualized explanation/show how operation

Purposes of Demonstartion

- Teaching skill, concepts or principles
- Delicate and dangerous experiments involving careful manipulation
- experiments involving difficult and complex operations
- Use of costly apparatus

Advantages of demonstration method;

- Concrete things are shown. So students don't enter into false imagination as it may happen in a lecture

- Students get confidence in the application of scientific principles as they observe them working and not simply hear about them

- Motivate students to learn more. It is an attention getting form of instruction.

- When the number of students is more and the number of equipments is less, demonstration is an ideal method

- the demonstration method is challenging and thought provoking.

- the demonstration method relates principles taught in the classroom to the real world situations.

•

– *Demonstration is aligned to the principle,*

  "

Guidelines for effective Demonstration

✖ Specify the objective of the demonstration

✖ Prepare a plan for your demo listing the various steps in the proper order

✖ Decide what information should be presented to the students **BEFORE, DURING** and AFTER the demonstration.

✖ Practice or rehearse the presentation

✖ Arrange the physical settings so that each student be able to see clearly

✖ Demonstrate   step by step/don't show how not to do a particular thing and provide opportunities for students

Disadvantages of demonstration method:

- demands very careful preparation and organization.
- unless care is taken some students may not be able to see or here what is said.
- considerable expense and time are often involved in presenting an effective demonstration.
- most demonstrations in schools like ours are limited to small group of students.

The Discussion Method:

- Purposeful conversation, proceeding towards some goal. It may consist of questions and answers.

- Is not monologue or a series of questions.

- Discussion that consists of questions asked by teachers and answered by student without considerable side interchange among students is not really discussion.

-

- In effective discussion, everyone should participate although it is not always necessary for everyone to talk on each and every point.

Forms of discussion are:

- Prescribed discussion
- Open discussion

Considerations in discussion

- be sure that the topic selected is discussable. The best topics are controversial problems or issues that can be resolved or clarified through discussion.
- make up a plan for discussion to follow and include an agenda, title and topic boundaries.
- be sure that all students are well informed on the topic. In an opening statement, brief students on the purpose of the discussion and its ground rules.
- vary groups so that cliques do not form and so that different people have opportunities to lead the discussion.
- have a small group discuss the issue first before whole class discussion so that everyone has an opportunity to think about the topic.
- try to create a pleasant physical environment.

Advantages of discussion method

- permits everyone to participate in the teaching-learning process.
- pools abilities, knowledge and varying experience in the realization of a common goal.
- is highly stimulating experience
- group discussions and judgments are often better than individual ones in a problem-solving or decision –making task.
- is simulation of real world situations.
- develop self-confidence and self reliance
- a medium for training trainees students in communication skills.

Disadvantages of discussion method:

- the discussion method, unless properly prepared and organized soon turns into aimless debate.

- it places limitations on the number of students who can effectively take part.

- it is time –taking process.

- Unless care is taken, the discussion group can be dominated by talkative students.

Questioning Technique

✖ **Interrogative statement**

Teacher ⟷ **Students**
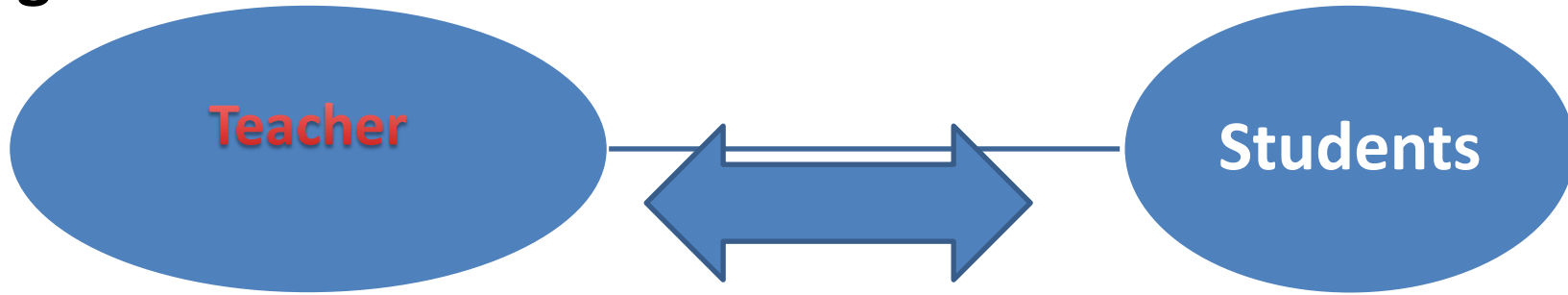
✖ **Purpose of questions**

➕ Interest getting and attention getting

➕ Diagnosing and checking

➕ Recall of facts or information

➕ Managerial

➕ encouraging higher level thought processes

➕ Structure and redirect learning – "now we have understood the classification of questions, who can tell us what the purposes of questioning are?"

Classification of classroom questions

✖ **Fact versus thought questions**

✖ **Convergent versus divergent questions**

  ➕ Convergent (direct or closed)—question that limit an answer to a single or questions of small number of responses are called convergent.

  ➕ Divergent (open response or general questions) ---- questions that have no single best answers.

✖ **Low order, middle order and high order questions**

  ➕ Lower order – knowledge questions(recall, memory)

  ➕ Middle order questions – comprehension questions, application questions

  ➕ High order questions – analysis questions, synthesis questions and evaluative questions

Question type/level of questions	Expected behavior	Instructional process	Key words
Knowledge questions	Remembering facts, information and recognizing facts, terminologies and rules	Repetition memorization	Define, list, name, identify, describe
Comprehension questions	Changing a form of communication by translating and rephrasing what has been read or spoken	Explanation illustration	Summarize, paraphrase, rephrase
Application questions	Applying the information learned to a context different than the one in which it was learned	Practice, transfer,	Apply, use, employ
Analysis questions	Breaking a material/problem down into its component parts & to draw relationships among the	Induction Deduction	Relate, distinguish, differentiate

Synthesis questions (creating)	Combining parts to form new or a unique or novel solution to a problem	Divergence, generalization	Formulate, compose, produce, predict, creatively imagine
Evaluative questions (judging)	Making decisions about the value or worth of methods, ideas, people, or products, according to expressed criteria	Discrimination Inference	Appraise, decide, justify,

Examples of Knowledge questions

- How many digits are needed to make 1000?
- Who discovered ------------------
- When was ---------------------------
- Where is the ----------------------------------
- What is the definition of --------------

Examples of Comprehension questions

- Can you, in your own words, explain what democracy is?
- What do mean by "teaching is both science and an art?

Examples of Application questions

- What countries from among African courtiers do you believe follow democratic system?
- What is the current status of Ethiopian education in terms of primary education access and coverage?

–

- **Examples of Analysis questions**
  - Why there are frequent disputes between neighboring African countries**?**
- **Examples of Synthesis questions**
  - What would happen if the "----------------------"?
- **Examples of Evaluation questions**
  - Given the following lines, which are curved which are straight?
  - Was Emperor Hilesilassie wise enough to lead the country?
  - Should the factory be closed down because of the pollution even if closing down results in high unemployment?

Common problems in using questioning

- Using complex, ambiguous or double questions –
  - **Complex**; "we all know what the three branches of governments are, but where they come from, how were they devised, and in what manner do they relate?"
  - **Simpler "recall** that there are three branches of government: the executive, judicial and legislative. What government functions are assigned by the constitution?'
  - To overcome this problem:
    - Focus each question on only one idea
    - State the main idea only
    - Use correct language
    - State the question in as few word as possible

-

✖ Using tagging questions- questions or statements often follow a halting (hesitant) or incomplete response

   ✚ "What else?, "yes…?", "tell me more"……

✖ Using "**yes-no**", **guessing** and **leading questions**

✖ Answering questions by ourselves

   ✚ Teacher should not answer the questions they asked. A common problem is sometimes students may begins a response but cut off, only to hear the remainder of the response supplied by the teacher.

✖ Relying only on answers we expect from students.

   ✚ Even partly correct answers and even unusual and unexpected ones can become effective additions to the discussion through the use of **probes**. (a question that immediately follows a student's response a question)

-

✖ Uncertainty as to why to ask question

+ We have to determine whether we have to use divergent or convergent questions depending on our lesson

✖ Using question as punishment

+ A students who forgot to do the homework is deliberately asked a question from that homework

+ A student who always non-volunteers is asked a question

+ A student gives a wrong response and then is asked an even harder question

+ A student who disrupts the class is asked a question for which the answer cannot possibly be known

+ A student who gives a careless response is asked series of questions in row.

Other research supported practices in using questioning technique

+ ask questions of primarily an academic nature

+ allow three to five seconds of wait time after asking a question before requesting a student's response, particularly when high-cognitive level questions are asked;

+ encourage students to respond in some way to each question asked;

+ balance responses from volunteering and non volunteering students

+ elicit a high percentage of correct responses from students and assist with incorrect responses;

+ Probe students' responses to have them clarify ideas, support a point of view, or extend their thinking

✖Acknowledge correct responses from students and use praise specifically and discriminately.

✖Ask a majority of lower cognitive questions when instructing **younger and lower** ability individuals. Ask a majority of higher cognitive questions when instructing **older and higher ability students**.

✖Keep wait-time to about three seconds when conducting recitations involving a majority of lower cognitive questions. Increase wait-time beyond three seconds when asking higher cognitive questions. Be particularly careful to allow generous amounts of wait-time to students perceived as lower ability.

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- Use redirection and probing as part of classroom questioning and keep these focused on salient elements of students' responses.

- Avoid vague or critical responses to student answers during recitations. During recitations, use praise sparingly and make certain it is sincere, credible, and directly connected to the students' responses.

Criteria for Selection of Teaching Methods

- A number of factors affect the selction of a certain methods over the others.

  1. Objectives of a lesson
  2. Contents to be learned
  3. Students' situations
  4. Class size
  5. Availability of materials
  6. Teachers' ability

Instructional Objectives for Effective Teaching

- Main component of a teacher's daily lesson plan

- written to reflect an intended outcome.

- Describe the teacher's educational intent for the students- that is, the desired learning outcomes.

- Instructional objectives are usually quite specific and pertain to daily plans or even to components within a single lesson.

- learning objectives communicate:

  - what the teacher is trying to teach;

  - what the students are to be expected to be able to do;

  - how their achievement will be measured; and what will be accepted as evidence that they have achieved the goals.

Why Instructional Objectives?

- When clearly defined objectives are lacking, there is no sound basis for the selection or designing of instructional process. If one doesn't know where he is going, it is difficult to select a suitable means for getting there.

- Help to measure whether important instructional outcomes have been accomplished can be selected or created intelligently only when those instructional outcomes have been made explicit.

- Provide students with a means to organize their own efforts toward accomplishment of those objectives. Experience has shown that with clear objectives in view, students at all levels are better able to decide what activities on their part will help them get to where it is important for them to go.

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- *If students are aware of how their work will be evaluated, their chances of success are greatly increased. Improved performance results in feelings of greater accomplishment and satisfaction on the part of both teachers and students.*

- Instructional objectives serve to eliminate much student uncertainty regarding what material they must master and how the material will be tested.

- Instructional objectives can also increase each student's responsibility for his own success or failure. No longer can students blame their failure on factors beyond their control. No longer can they offer excuse such as "I didn't know what would be on the test", "The questions were not the way I expected them to be." and the like.

Ways of Stating Instructional Objectives

- All objectives need to be based on and reflect the broader aims already formulated at higher level;

- The objectives at any level must indicate and stress the desired products or outcomes of learning. The kind of knowledge, skills, attitudes, characters, etc to be achieved at the end of the process must be written in behavioral terms.

- All statements of objectives combine behavior and content.

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- All objectives must be written in terms of students' behaviors, but not in terms of teachers' activities.

- The set of objectives at all levels needs to be comprehensive enough to fairly include all classes of educational objectives. The objectives one writes at higher level or classroom levels need to represent the three domains. There must be some objectives the represent the cognitive, the affective, and the psychomotor domains.

- All educational objectives must be stated in a feasible way. Planners need to write the objectives by considering the existing material, time, money and manpower or the human and non-human resources available.

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- Educational objectives need to be appropriate. The rule is related to considering the maturity level of the student (level of understanding, ability, grade level, etc...)

- 8. Educational objectives at a classroom level must be stated in a clear, precise, specific and measurable terms. The objectives one writes should communicate the same meaning to both the writer and the reader.

- In all statements of objectives, **only one type of behavior and one type of content** must be combined.

Check whether the following objectives are SMART? **Specific, Measurable, Achievable, Relevant, Time Limited,**

	Bad/Good
• By the end of the lesson students will know and describe about the local environment.	
• By the end of the lesson students will be able to solve quadratic equations.	
• By the end of the lesson students will understand the influence of climate on environment	
• By the end of the lesson students will write a descriptive paragraph to begin a story.	
• Students will know about global warming.	
• By the end of the lesson students will recognize the importance of conservation of resources.	
• By the end of the lesson students will identify a given rock samples.	
• By the end of the lesson students will classify materials	

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- What is a large class?

- Why do we have large classes?

Large Class from Teachers' perspective

✖ A large class is one in which teachers face problems in teaching, managing, evaluating ,Horn, 2006)

✖ A large class is one in which:

➕ 'the possibility of individual relationship between a teacher and student is precluded,

➕ every student who wants to speak in class cannot be called on,

➕ grading essay exams can take up every evening and weekend of the course (Weimer, 1987,).

✖ What is considered small in one context, may be seen as a large class in another context such as North America.

Experts views as reviewed by (Porter, 2002).

✖ "There is nothing like a large class. The large class is only in the mind of the traditional teacher"

✖ A large class is one with more students than available facilities can support"

✖ "Large classes have more than 100 students enrolled"

✖ "There is no fixed number. The large class depends on the discipline- smaller number for engineering, science and medicine and larger number for the arts, humanities, and social sciences"

- From the above views we understand that:

"There is no agreed definition of a **large class** in the literature, nor should there be. One person's large class is what some others consider as "regular" 'small' or 'normal'. Some teachers simply define " too many students to learn names by the end of the term or semester."

Challenges of teaching in large classes

- Little opportunity for participatory learning process
- Lack of teacher's attention
- Over crowdedness (discomforts caused by the physical constraints)
- Difficulty of evaluating student's performance and giving feedback
- Difficulty of classroom mgt (control problems(discipline aspect)

-

Larger classes	Smaller classes
Students receive less individual attention	Students receive more individual attention
A more restricted range of teaching and learning activities	Flexibility to vary teaching and learning activities
Whole-class teaching sometimes employed for control and keeping students on task	Whole-class teaching employed when appropriate to the activity
Group work hard to manage because of too many or too large groups	Group work can be employed effectively and flexibly

-

Restricted opportunities for student assessment and individual feedback	Better quality assessment and feedback to students
Limitations to practical activities	More opportunities for active learning
Teachers work extremely hard to offset the effects of larger class size	More reasonable workloads enabling teachers to put their energies into meeting the needs of students

PRINCIPLES AND APPROACHES TO ENHANCING LARGE CLASS LEARNING

✖ **BE REALISTIC:**

➕ focus only on feasible or possible activities in managing large class size teaching in an effort to attain the objectives stated.

✖ **SHARING Of RESPONSIBILITY TO LEARNERS**

➕ Assigning pair and group work for instance, is noted to be helpful to allowing the learners in taking responsibility for their learning.

➕ delegate part of the controlling responsibility to the learners.

➕ facilitating learner's to evaluate themselves and their peer's work to lets them feel responsible

Tackling reasons of large classes

- Absence of access to schools

- Poor efficiency in the existing schools

- Poor societal awareness of education

Task:

- How large class is large in Ethiopian Context ?

- Why we have large classes???

Meaning of Assessment and continuous assessment

- Can you tell what assessment and continuous assessment are? What is the method of continuous assessment? Why continuous assessment is so emphasized in education and training? Discuss these and other related issues with your group members and answer the following question.

- What is assessment?

- What is formative continuous assessment?

- What is summative assessment?

- What is the relationship b/n summative assessment continuous?

- Is continuous testing a continuous assessment?

Meaning of Assessment and Related Concepts

✖ Assessment

➢ The process of collecting information about students to make educational decisions about them.

➢ The process of gathering relevant information, for the expressed purpose of making educational decisions,

✖ Continuous Assessment

➕ The **daily process by which teachers** should gather information about learners' progress in achieving the learning targets.

➕ Such assessment uses many ways to determine what a learner knows, understands, thinks, and can do. It is meant to be a part of daily teaching and learning in order to improve teaching and learning.

➕ It is a means of obtaining information about trainees frequently (i.e.. often), instead of obtaining information only rarely (i.e..occasionally).

Why continuous is assessment so important in education?

– diagnose learner strengths and needs,

– provide feedback on teaching and learning,

– provide a basis for instructional placement,

– inform and guide instruction,

– communicate learning expectations,

– motivate and focus learner attention and effort,

– provide practice applying knowledge and skills,

– To evaluate and grade learner achievement.

– To ensure and improve the effectiveness of your school.

– To provide a basis for instructional placement (for example, in groups during lessons, for remedial work, and for promotion).

– To predict a learner's readiness for future learning.

"Without assessments it will be impossible to tell whether any learning has taken place. Continuous assessment allows you to better use the "assessment-feedback- correction" learning cycle that is missing from the time-limited examination".

Types of Continuous Assessment

✖ **Formative Continuous Assessment**

    ✓ An ongoing process for checking learners' readiness, understanding, difficulty, effectiveness of teaching approaches, and so on.

    ✓ It is "ongoing" because it is part of the instructional process as it unfolds everyday in your classroom.

✓ FCA provides information that is very helpful for improving learning as well as improving the instructional process.

    ✓ FCA is not a **one shot activity** .

Summative Continuous Assessment

- ✓ a process for collecting information about students' learning that is used to make decisions about certifying, grading, reporting, and promoting.
- ✓ Usually done at the **end of a unit, a course, a semester, or a program**. Most of the time examinations are major instruments of summative assessment.
- ✓ Think of SCA as meaning to collect information to help you sum up what students have learned from their lessons.
- ✓ An occasional comprehensive sum-up or summary of a student's achievement of the learning outcomes.
- ✓ There is no need to have a comprehensive sum-up every day.
- ✓ Rather, you sum-up a student's learning, for example, at the end of a long unit, at the end of the semester, or at the end of the year. It is important to report a summary of every student's learning to the students' concerned authorities.

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Is SCA Necessary?

- Summative continuous assessment is of necessity in assessment practice, with teachers in charge of both creating and marking the tests. Teachers use the SCA results to provide a summary that evaluates the quality of students work, with the goal of **marking and grading**. It is required that teachers mark or grade students and report their evaluations to the concerned.

SCA has Limited Value for Improving Teaching and Learning

- The information that is gathered from your SCA is important, but it is limited because usually is not **timely and detailed enough for you to use to adjust your daily teaching to help students improve their leaning.** Feedback to students from your SCAs, however, comes primarily in the form of marks or grades. This type of feedback gives students little direction or advice for improvement.

Distinctions b/n FCA and SCA

- What distinguishes FCA from SCA, however, is not their **formal or informal** nature. Rather the distinction lies in **the purposes for which the results are used**.
- Formative continuous assessments primarily serve purposes such as:
  - Identifying a students' learning problems on a daily basis
  - Giving feedback to students about his or her learning/feedback on precisely the points students need in order to improve/
- SCA helps to evaluate students learning after teaching one or more units of a course of study. More specifically, SCA information helps:
  - Assign grades for report cards
  - Place students into remedial or advanced courses
  - Evaluate one's own teaching

What is a *reliable and valid continuous* assessment?

- **Reliability**:
  - Means that assessment results must be **consistent**.
  - The marks from an assessment are consistent if, for example, two teachers mark the same group of learners' answer and award the same marks.
  - The marks from an assessment are consistent if a learner gets the same marks for the same work today as five days from now.
  - If a learner's marks fluctuate greatly depending on which teacher marks the paper, then these marks are unreliable.

  Validity:
  - Means that your assessment results can be defended as good to use to evaluate each learner's **mastery of the objectives and competencies from the program** that the learners actually studied.

Methods of Continuous Assessment

- Marks from an assessment are valid if the questions match the objectives of the program. Marks from an assessment are valid if the content of the assessment matches the content of what the learners really studied.
  - **Valid assessments are linked to the objectives and competencies specified in the program.**

Informal assessment:

- Procedures for gathering information about learning that we frequently use during classroom activities.

- They are **not** necessarily **carefully planned**, but they are meant to provide information that is critical for you to know at that moment.

- Include a variety of techniques including questioning a learner, **observing a learner work**, **reviewing a learner's homework**, **talking with a learner** and listening to a learner during presentations, etc.

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- **What is a *formal* assessment?**
  - Procedures for gathering information about the learners that is created with **special thoughtfulness and care** and should be closely matched to the basic competencies in of the program.
  - Conducted in situations which have been set up solely for that purpose. Formal assessment may include a variety of techniques such as **short tests, quizzes, oral examinations, performance assessment tasks, examinations and projects**. Formal assessments are usually graded and recorded.
  - **Formal assessments by their nature can usually be designed to be more valid and reliable than informal assessments**

Why should a teacher use different continuous assessment methods?

- – One assessment method may allow us to better assess a learning objective than another assessment method.

- – Ability to organize ideas is better assessed by "essay" than by giving the learner a "multiple-choice test".

- – Some learners are able to demonstrate their learning better with one method than with another.

  - ➢ Hence, it is best to use more than one assessment method.

- *The nature of the learning task, e.g., the ability to apply knowledge or the mastery of a practical skill like typing, will determine which assessment type will be most suitable to use.*

Ways of Giving Feedback

- Three ways may be possible in giving feedback to students

A. Giving feedback by comparison

- **Norm-referenced feedback –**the feedback compares students' work with other students' work.

- **Criterion referenced feedback –** the feedback compares students work with a learning outcome and tells students what he/she can and cannot

- **Self referenced feedback-** the feedback compares student's work to his or her own past work or sometimes to the level of performance you expect of that particular students.

- The best comparison feedback to give is criterion-referenced or self-referenced feedback unless required for some specific purpose

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B. Outcomes and process ways of giving feedback

- **Outcome feedback-** feedback tells students only the result of evaluation. Example: you got 8/10 on that assignment.

- **Cognitive feedback**- the feedback tells student the connection between how he/she went about doing the work and his achievement and does so in a way that leads to improving the work. **Example:** one may say **"it** doesn't seem like you used the proper chart that shows the different social and economic sectors. That is why you list of sectors in incomplete.

- The better feedback to give is cognitive feedback because it helps students to know what to do to improve. Outcome feedback is more limited.

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- **Description and Evaluation ways of Giving Feedback**
  - **Descriptive feedback**: the feedback tells the students information about the work, especially how the work meets quality criteria. **Example,** one may say **"**I like the way you used quantitative evidence to support your argument**"**
  - **Evaluative Feedback**: The feedback tells the students only your overall judgment on the work, without describing particular qualities about the work. Example, one may say " **good job, well done**"
  - Students will find it more useful when one gives descriptive feedback that specifies **why** parts of the work are **good** or **not so good** than when one gives simple evaluative feedback.

Classroom Management

- is a process of organizing and conducting a class to make instruction effective and efficient.
- is a process of managing the teaching and learning activities to get maximum students' learning.
- is a process of establishing and maintaining order.

Effective classroom management requires:

- good planning
- conducting the class/implementation
- monitoring

- **Teacher–related causes;**   ----
  - poor teaching:
    - » poor mastery of the subject taught
    - » lack of planning and preparation;
    - » ineffective style of presentation;
    - » failure to use appropriate teaching aids
    - » failure to involve students in the process
    - » failure to apply teaching principles
    - » failure to structure one's lessons
  - Failure to set the right task
  - Failure to enforce the rules set
- **School – Environment Related Causes**
  - The absence of sufficient materials
  - Conflicting rules in school and the home;
  - the class size;

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- **Student – related causes**
  - Antipathy (hostility) to school or disinterest in learning
  - lack of interest in a particular subject
  - hostility towards a teacher;
  - attention seeking
  - ignorance of the classroom rules;
- **Home Environment Related Causes**
  - unsettled or disruptive home environment
  - unpleasant peer relations;
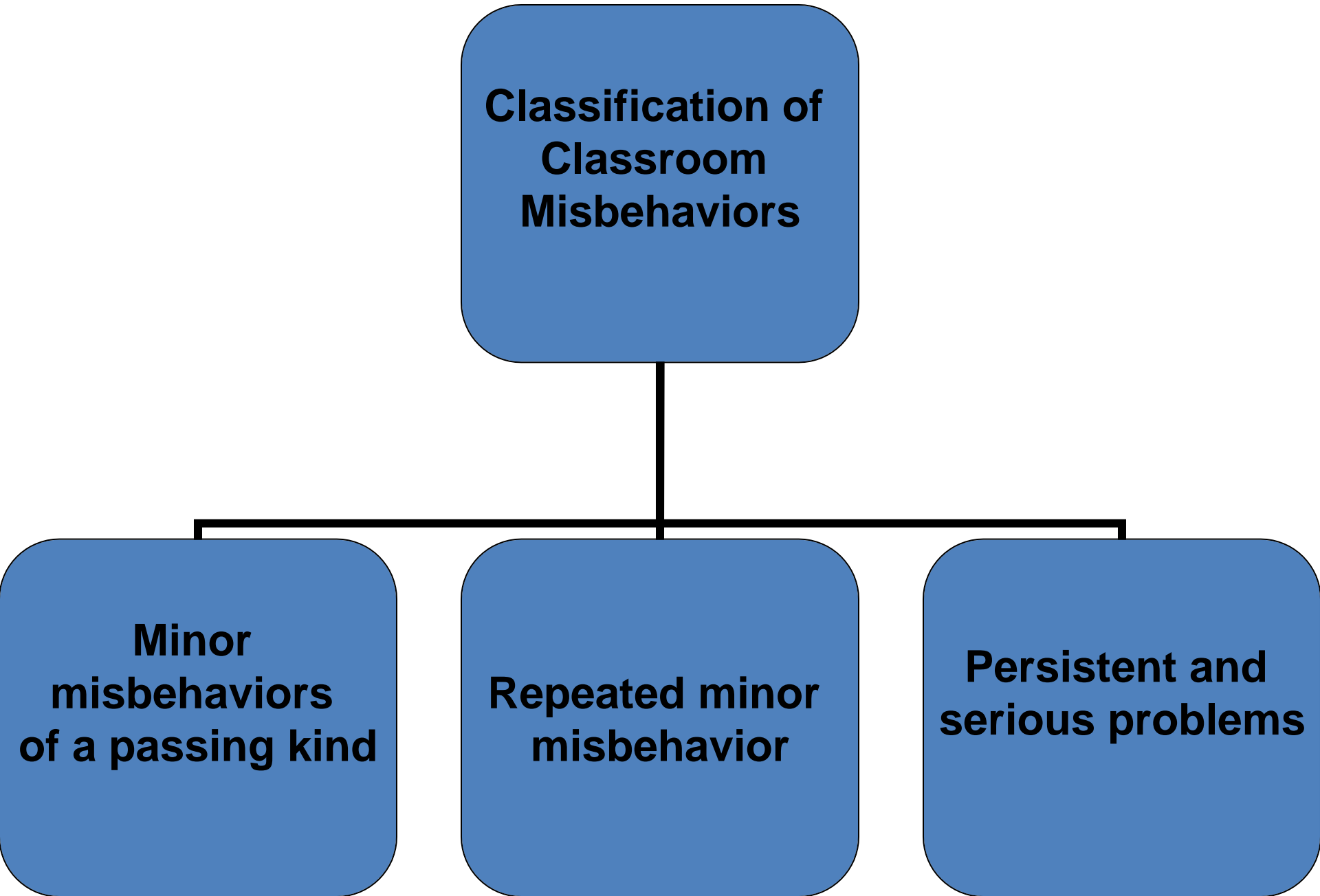 - bad physical condition

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                    Classification of
                      Classroom
                      Misbehaviors
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   Minor              Repeated minor        Persistent and
 misbehaviors          misbehavior         serious problems
of a passing kind
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A. Minor misbehaviors of a passing kind

- Limited to mostly a single student
- Inattentiveness, unfriendly feelings, etc

B. Repeated minor misbehavior

- are problems, which don't spread to and don't distract other students in the class.
- day dreaming, attention seeking, not meeting work requirements, failure to show interests, becoming uncommunicative and withdrawn, persistent inattentiveness and rest
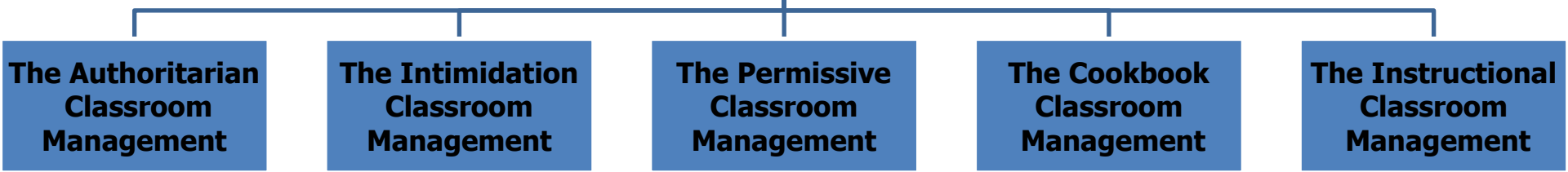
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C. **Persistent and serious problems**

- are major problems and
- are likely to harm the teaching and learning activities as well as the social relationship existing in the class.
- Breaking the classroom rules,
- involving in anti social behaviors (stealing, theft, murder and lies),
- insensitivity to others, disrespect, disobedience, cheating, insulting, leaving seat without permission, excessive movement about the room, calling out without raising one's hand, running in a class, using bad languages, whispering and over-noisy talk, physical aggression to other students, etc

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                    ┌─────────────────────┐
                    │     Classroom       │
                    │    Management       │
                    │    Approaches       │
                    └─────────────────────┘
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| The Authoritarian Classroom Management | The Intimidation Classroom Management | The Permissive Classroom Management | The Cookbook Classroom Management | The Instructional Classroom Management |

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Intimidation Classroom Management

- emphasizes controlling student b/r
- Emphasizes the use of intimidating teacher behaviors (punishment)
- Forces the students to behave according to the teacher's dictates.

The Permissive Classroom Management

- Emphasizes students' freedom.
- Allow students to do whenever and whatever they want.
- Promotes the freedom of students

The Authoritarian Classroom Management Approach

- Student's behavior is totally controlled by the teacher. greater roles of teachers
  - **Establishing and enforcing rules**
  - **Issuing commands, directives and orders**
  - **Utilizing mild desists**
  - **Utilizing proximity control**
  - **Utilizing isolation and exclusion**
  - Isolation, exclusion, in school suspension, in school detention and other forms of exile are strategies

The Cookbook Classroom Management

- Provides lists of "dos" and "don'ts" a teacher should or should not do.   Sample of lists of dos are given as follows:
    - always reprimand a pupil in private;
    - never raise your voice when admonishing students
    - always be firm and fair when dealing with students;
    - never play favorites when rewarding students etc.

The Instructional Classroom Management Approach

- Carefully designed and implemented instruction will prevent problems.
- Effective management is the result of high quality instructional planning & strategies
  - providing interesting, relevant and appropriate curriculum and instruction;
  - employing effective movement in the classroom
  - utilizing interesting boosting & clear directions & restructuring the situation
  - providing for environmental changes and modifying the classroom environment;

The Behavior Modification A.
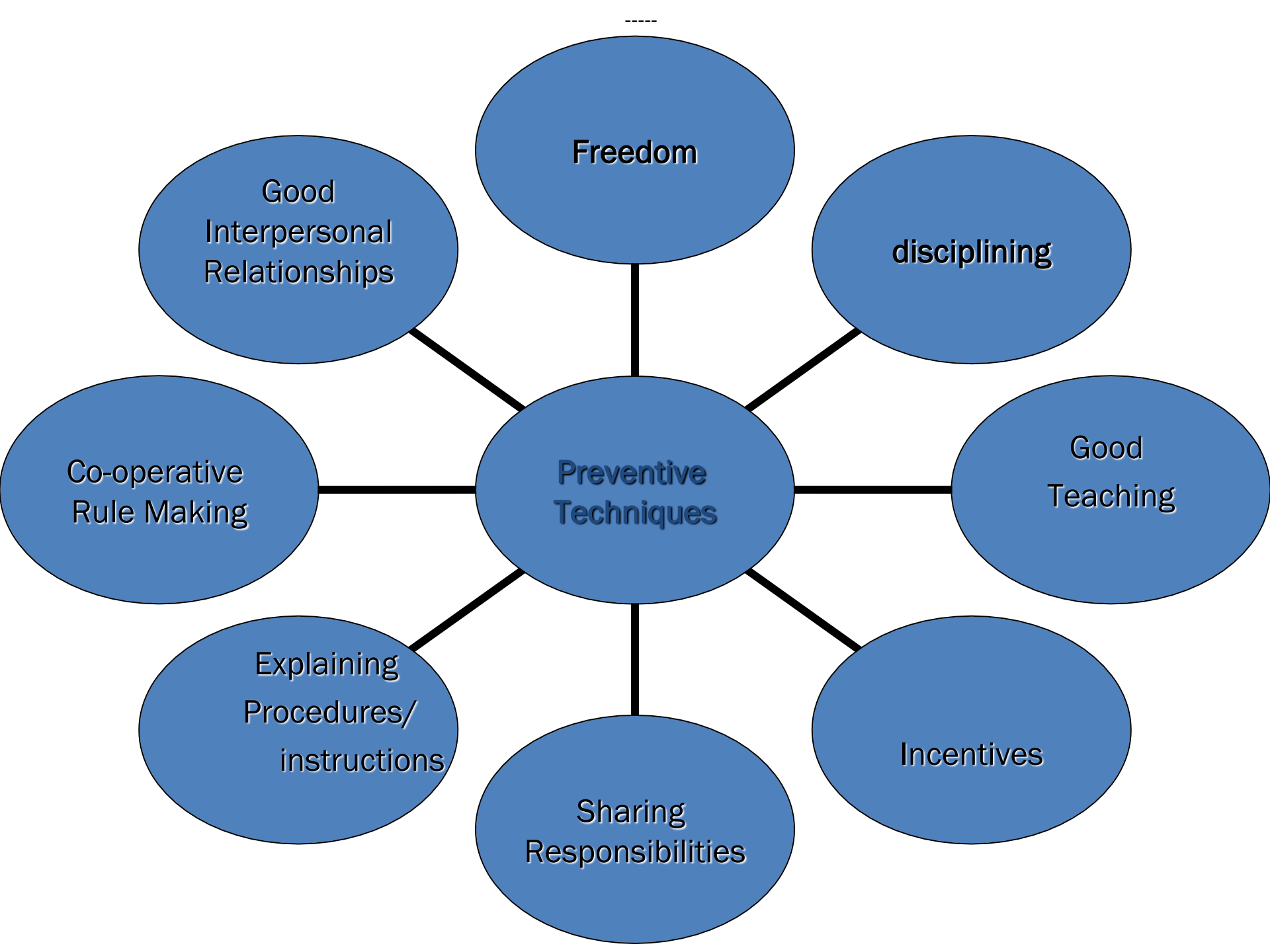
Emphasizes modifying students' behavior by using:

- positive reinforcement,

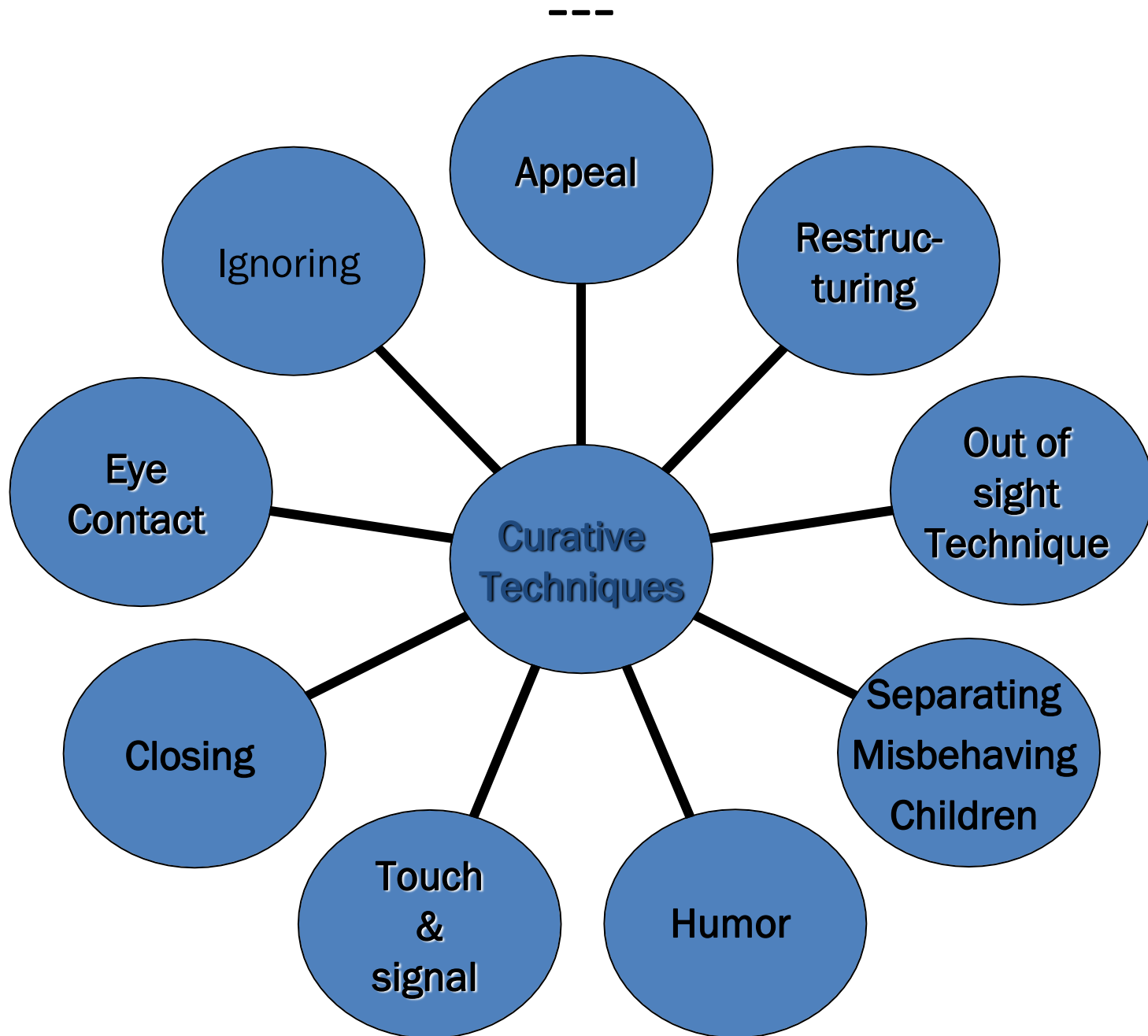- punishment,

- extinction and negative reinforcements

Classroom Management Techniques

Preventive Technique

Curative Techniques

Assisting Troubled Students

- To help students get assistance
  - Talk to the student when you both have sufficient time and in a private place
  - Be matter of fact and control your emotions
  - Give the student your undivided attention
  - Express concern in clear, direct, non-judgmental terms.
  - Listen in a respectful, non-threatening way
  - Convey support and understanding

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