Active Learning Strategies
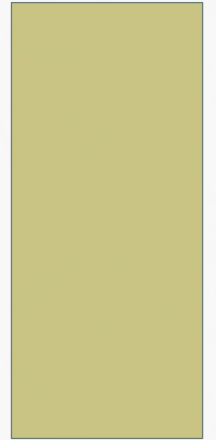
BY DR . HEND ABO EL-ATTA

Let's agree some Ground Rules!

Silent Mobiles

Smile

Mutual Respect

Differ Amicably

Effective Participation

Roles & Responsibilities

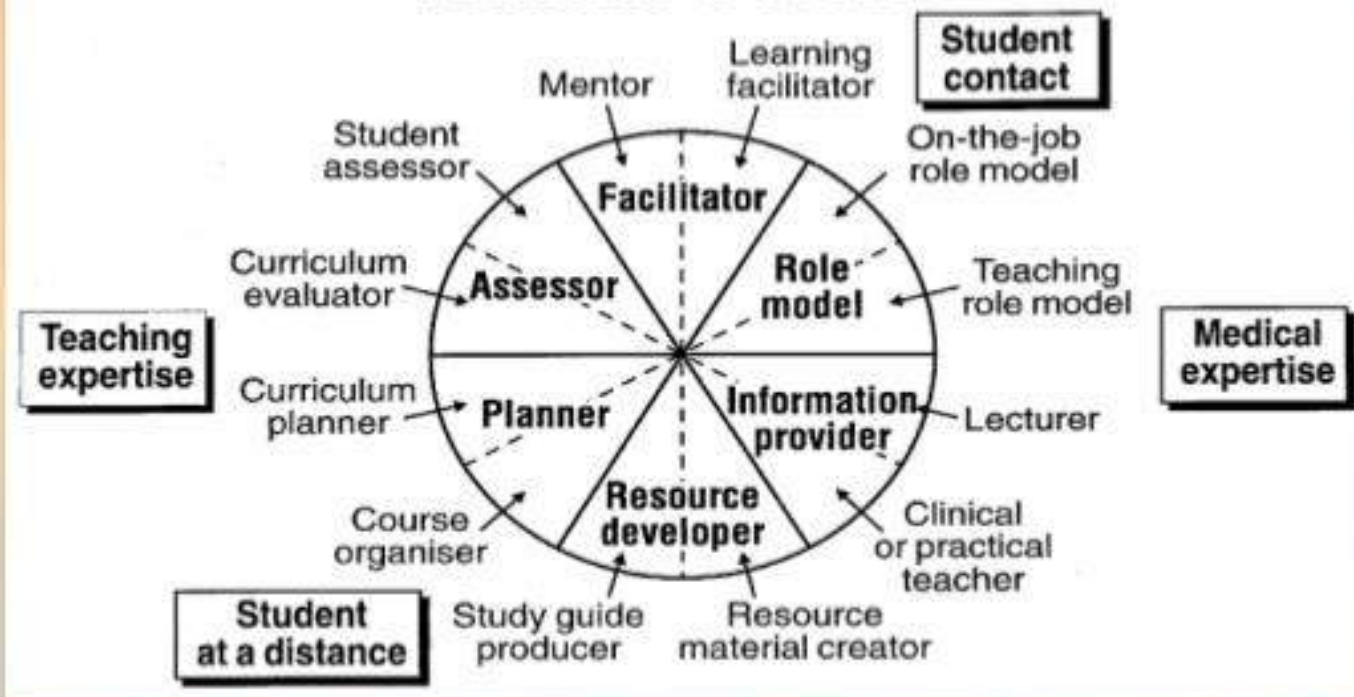# Roles & Responsibilities of a Teacher

by B. Upul N. Peiris [bunpeiris]

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Teacher's Roles

Mentor
Learning facilitator
Student contact
Student assessor
On-the-job role model
Curriculum evaluator
Facilitator
Role model
Teaching role model
Teaching expertise
Assessor
Medical expertise
Curriculum planner
Planner
Information provider
Lecturer
Course organiser
Resource developer
Clinical or practical teacher
Student at a distance
Study guide producer
Resource material creator

Replace "Medical Expertise" with "expertise in curriculum"

WHAT IS A CURRICULUM?

IT ALWAYS DEFINED AS...

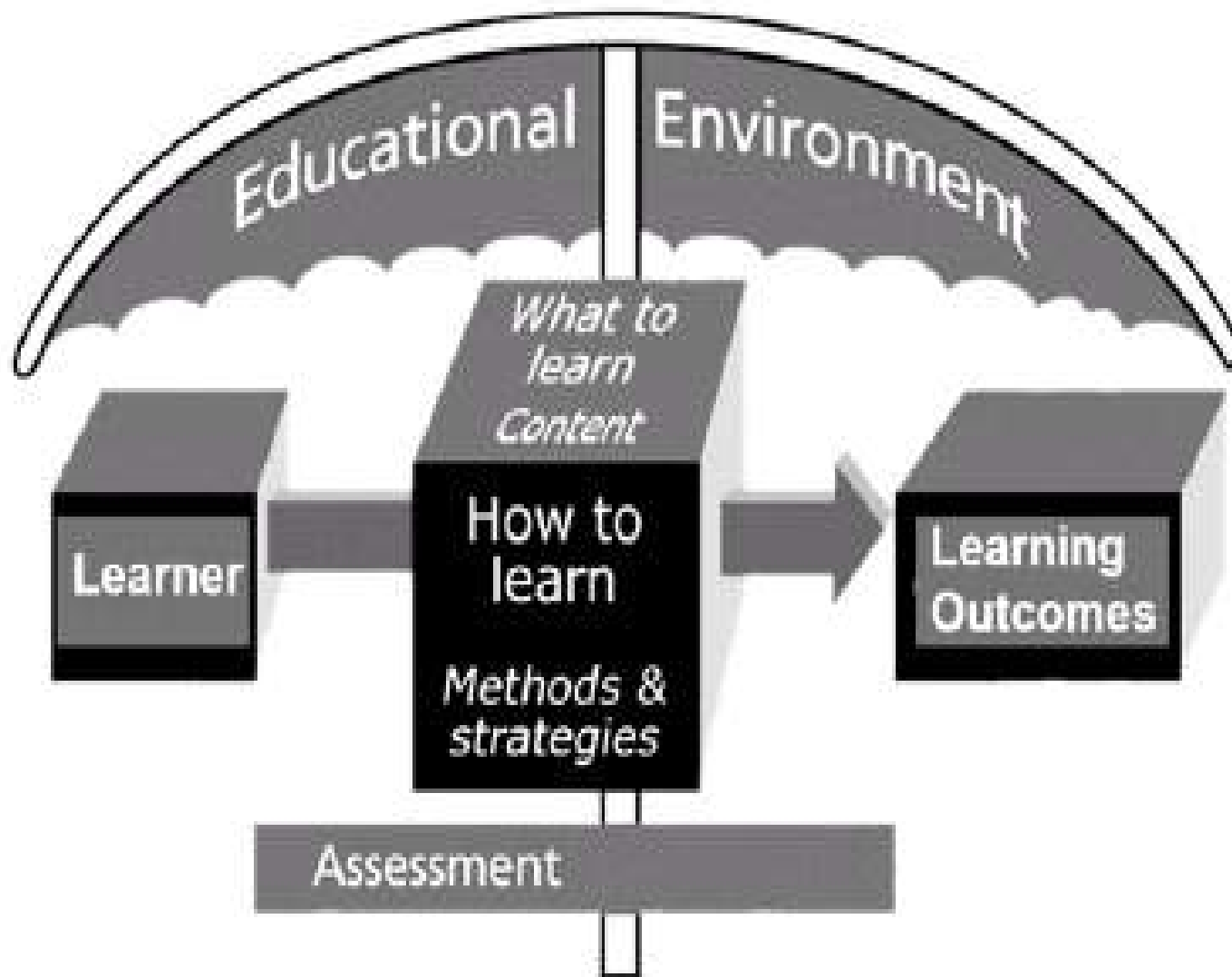- In Latin, the word "curriculum" means literally "to run a course."

This concept of a curriculum has been widened to include:
- the learning outcomes
- the teaching and learning methods
- the educational strategies
- the context for the learning **Scope & sequence – Syllabus - Content outlines – Standards – Textbooks - A course of study**
- the learning environment
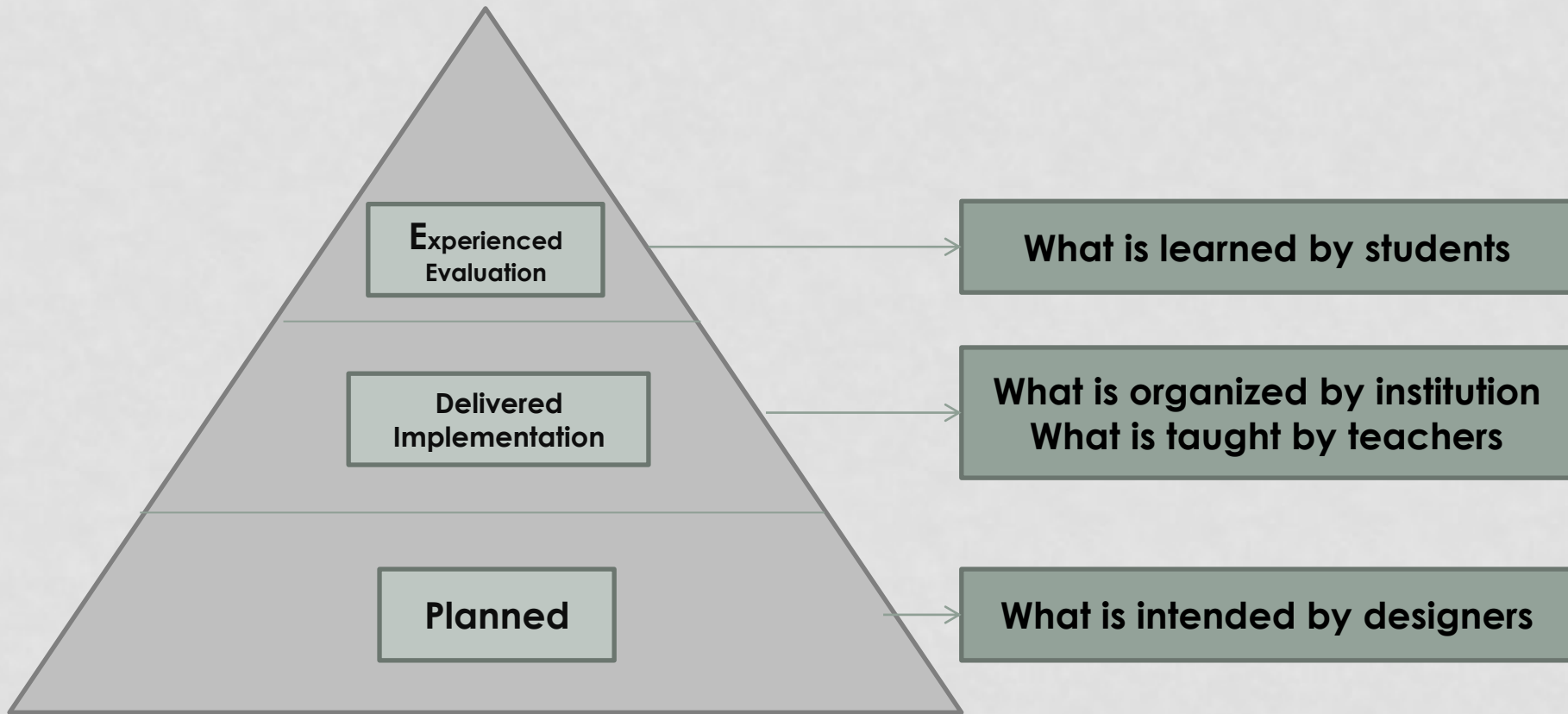- the assessment procedures.

HOWEVER, IT T CORRECT TO BE…

Planned meaningful learning experiences: A series of experiences undergone by learners in a faculty. Is everything that goes on within the educational institute, including extra-class activities, guidance, and interpersonal relationships (academic, athletic, emotional, or social.
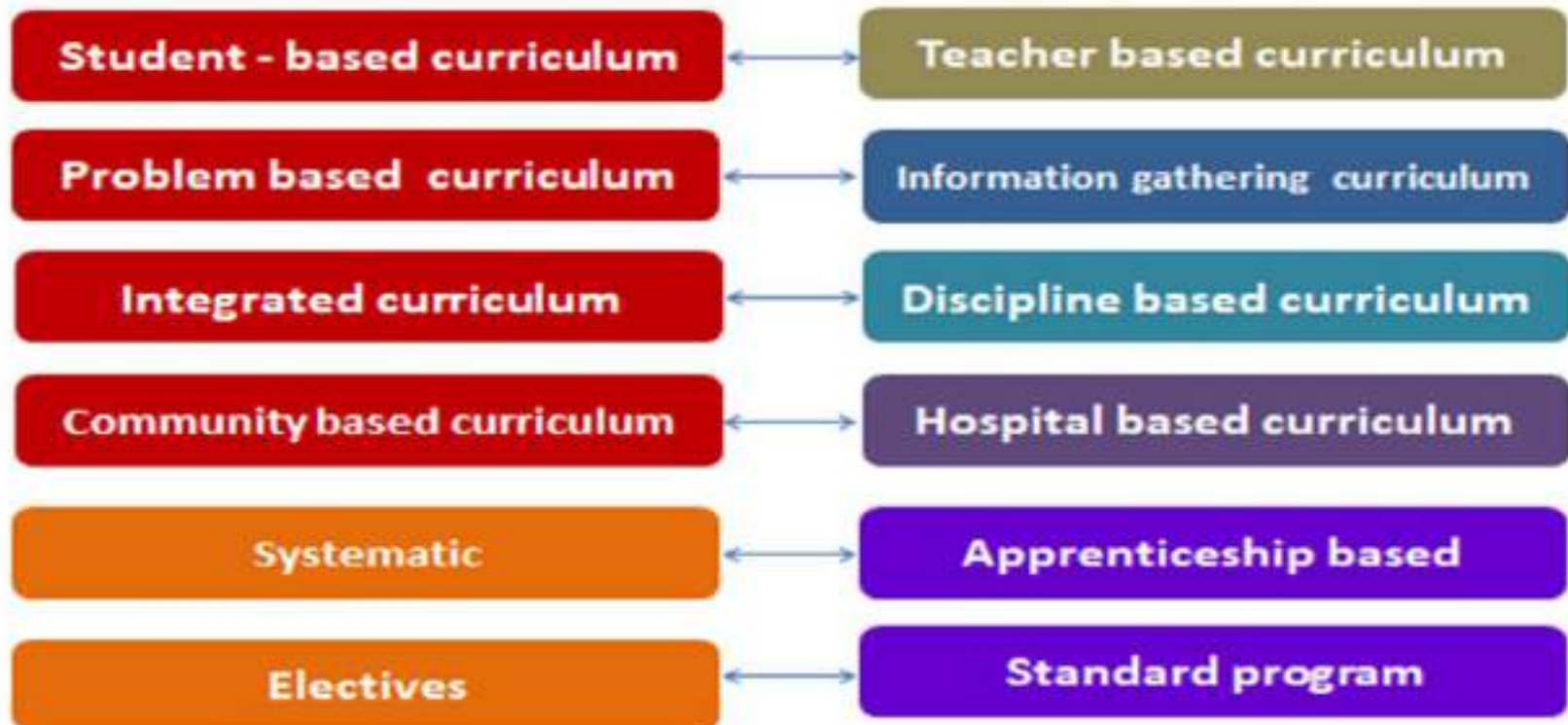
Every Curriculum Has Three Levels:

Experienced
Evaluation

Delivered
Implementation

Planned

What is learned by students

What is organized by institution
What is taught by teachers

What is intended by designers

What Educational Strategies Should Be Adopted?

The SPECIS Model of curriculum

Student - based curriculum	Teacher based curriculum
Problem based curriculum	Information gathering curriculum
Integrated curriculum	Discipline based curriculum
Community based curriculum	Hospital based curriculum
Systematic	Apprenticeship based
Electives	Standard program

Define The Strategy

- Its linguistic origin is the Greek word **strategius**, meaning the art of leadership and choice of goals. This term was used for the first time in the military field, and it means making full use of the available capabilities, materials and means to achieve the desired goals (a framework that guides working methods). Then the use of this term moved to several areas, including teaching and learning.

# **Teaching & Learning Strategies**

- It is a context of the teaching methods, methods, and techniques of stimulating the changing classroom according to several criteria, perhaps the most important of which is the teaching position.

- It is the teacher's method of teaching materials and his way to achieve the desired educational goals.

Teaching & Learning Strategies

- It is also the means, tools, and procedures that he uses to help him in his mission. It is also the general atmosphere within the semester that helps in reaching - in an organized and sequential manner - to acceptable educational outcomes in light of the available capabilities.

It is all of the above, but it is a summary of the pre-planning and plan that the teacher follows to achieve an educational goal.

Teaching Strategy , Teaching Method , Teaching Technique

استراتيجية التدريس

طريقة التدريس

أسلوب التدريس
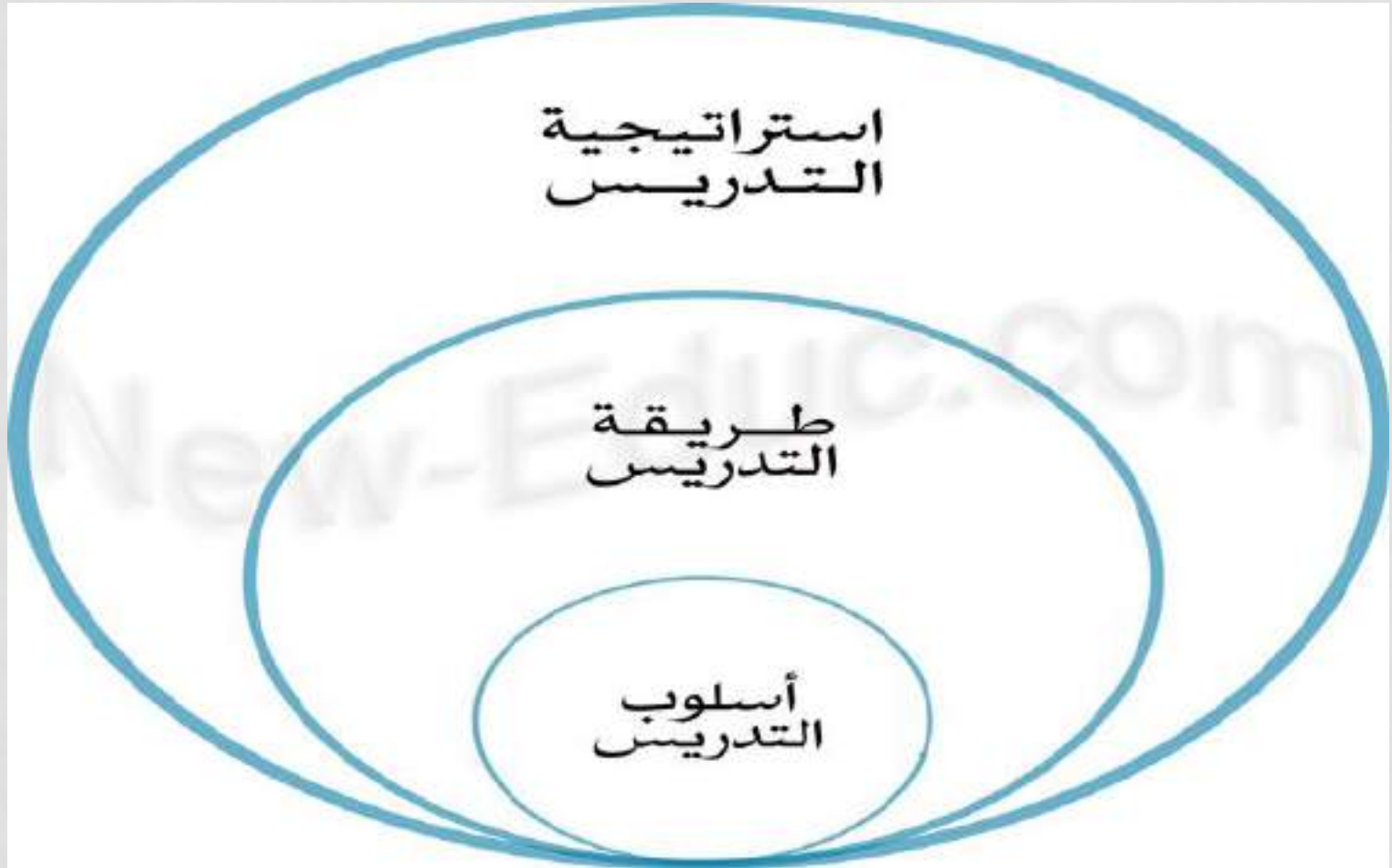
In Mansoura Faculty of Medicine BYLAW

الباب الخامس – نظام الدراسة والامتحانات

مادة (١٨): نظام طرق التدريس والتعلم :

استراتيجيه كلية الطب جامعة المنصورة للتعليم والتعلم هي تحقيق أنماط مختلفة من التعلم بما يتناسب مع المخرجات المستهدفة و تنميه المهارات والقدرات المطلوب توافرها في خريج كلية الطب من خلال:

١. المحاضرات والدروس النظرية
٢. الدروس العملية والاكلينيكية
٣. التدريب الميداني

٤. تبني أساليب وأنواع مختلفة من التعلم داخل الكلية وهي:

- التعلم التعاوني Collaborative learning

- التعلم التفاعلي Interactive learning

- التعلم الذاتي Self-directed learning (SDL)

Strategies To Be Adopted

❑Traditional education includes theoretical and practical lessons.

❑Untraditional strategies:

✓ **Independent learning** "Self-Directed / self –regulated learning"

✓ **Individual learning Strategy**

✓ **Integrative Problem-solving learning strategy** "Problem based/Task Based Learning"

✓ **Inquiry Based / Critical Thinking Strategy**

✓ **Experiential education Strategy**

✓ **Collaborative learning strategy**

✓ **Peer Assisted learning / evaluation strategy**

✓ **Learning strategy with the help of information technology**

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Independent Learning Strategy

- One of the most important goals of this strategy is **learning to learn**,

- The learner acquires the necessary skills that enable him to learn continuously to face the academic tasks and deal with the sources of science and knowledge in the first stage, and to face life in the next stage.

- Thus, **self-learning can be defined as a** learning activity that the learner undertakes - personally - to acquire skills, knowledge, concepts and values in order to develop his capabilities and preparations, and in which the learner is the centre of the educational process.

- Students learn by their own
- They have a measure of control over their own learning. They may choose: where to learn, what to learn, how to learn when to learn, decide the context for learning, diagnosis personal learning needs, identifying the resources, deciding time for learning and pacing of leaning

JUST – for –YOU learning (specific different needs)

JUST on TIME (on job learning)

Teachers role: **from lecturer, information transmitter TO manager**

- Encourage critical thinking.
- Providing knowledge resources and a self-help environment.
- To push learners to adopt open questions.
- Urging them to link learning to life situations.
- Make the learner confident of himself, and encourage him while making mistakes on his way to learning.
- To develop literacy and reading skills for learners

Self-directed / Self –Regulated Learning

Self directed learning activities

- Setting own learning goals
- Identifying appropriate learning resources
- Selecting appropriate learning strategies
- Selecting important from unimportant
- Integrating material from different sources
- Time management
- Monitoring achievement of learning outcomes
- Monitoring effectiveness of own study habits

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Individual Education Strategy

Individual education is represented by the efforts of a faculty member in responding to the differences between learners. And when a faculty member can diversify his teaching method to provide the best individual learner or a small group that is largely homogeneous with the best learning opportunities, he does so individually, and based on the student's willingness, interests, or previous learning experiences, a faculty member can clarify education from ***The following four aspects:***

- 1. Content,,,,,,
- 2. The process,,,,,,,,
- 3. Outputs,,,,,,
- 4. Learning environment,,,,,,,

Individual Education Strategy

The most important factors for individual education success have been identified as follows:

1. The curriculum focuses on the information and facts that consider to be of high value.

2. Designing lectures, lessons, activities and means to ensure that students interact with this information and facts, understand them, and employ them in their lives.

3. The tasks and activities are characterized by contacting students' lives from their point of view and achieving pleasure and gratification for every learner.

4. There is not one way ready for education, but there is a way of thinking in teaching and learning to emphasize the intrinsic value of the individual learner that can be translated in practicing that process inside the halls in many ways.

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Integrative Learning Strategy
Problem-solving Strategy

It is called the **scientific method of thinking**, and it is done by notifying learners of anxiety and provoking their thinking about a problem (appropriate to their level, related to the subject of the lesson, and their living) that they cannot solve easily, but rather by researching and exploring the facts leading to the solution.

The broad outlines of this strategy can be summarized in:

- Define and formulate the problem.
- Analysis collects data and analyzes causes and factors.
- Suggest solutions.
- Implementation

A situation that leads, through interaction with him, to producing authentic and beneficial solutions. It is based on a set of ideas, the most important of which are:

1. The process of innovative problem solving involves three consecutive and interrelated steps,,,,,,,

2. The innovative solution is a unique and original product.

3. The innovative student has a high degree of ability to explore the problems surrounding him.

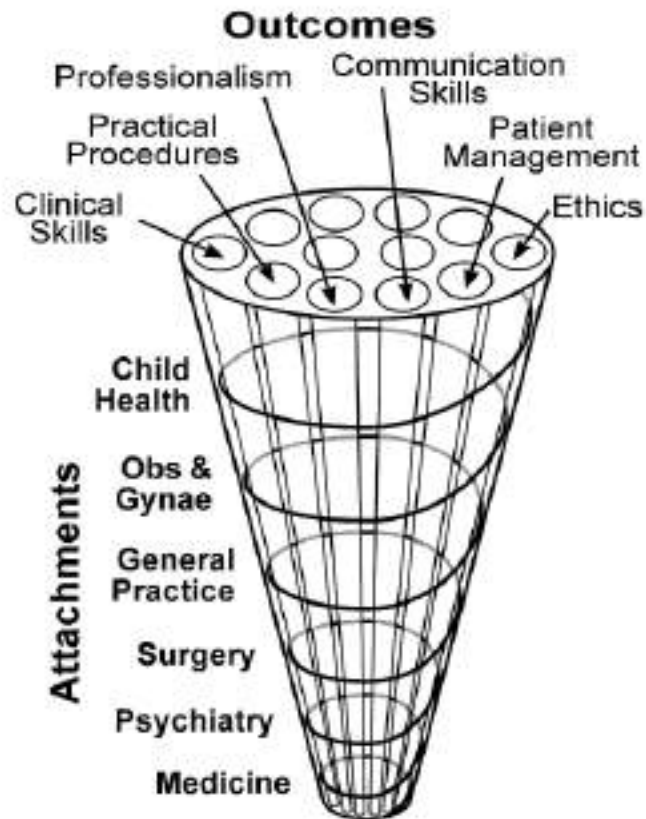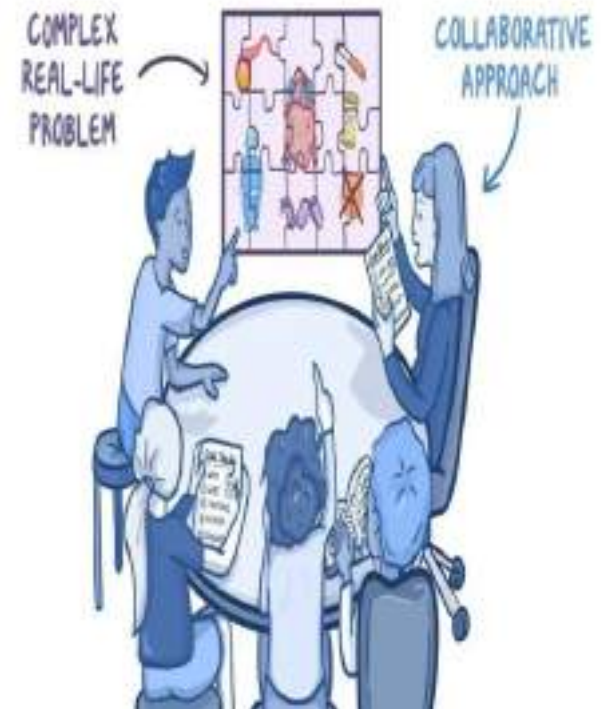# Task Based / Problem Based Learning

Figure 1 Students master the learning outcomes through study of the task 'management of a patient with abdominal pain' as they rotate through the clinical attachments.

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Inquiry Based Learning "Critical Thinking" Strategy

- It is a capacity that develops continuously and spontaneously among learners as a result of putting them in front of situations, tasks and problems that they must solve and deal with using the principle of doubt and testing opinions in light of their previous knowledge in order to reach conclusions and knowledge away from prejudices.

Inquiry Based Learning Strategy

- It is a constructivist approach where the overall goal is for students to **make meaning**.
- While teachers may guide the inquiry to various degrees (externally facilitated) and set parameters for a classroom inquiry, true inquiry is internally motivated.
- Inquiry based learning is an umbrella term that incorporates many current learning approaches (including project based learning, design thinking) and may take various forms, depending on the topic, resources, ages and abilities of students and other variables

Inquiry Based Learning Strategy

Characteristics that serve as hallmarks of inquiry based learning:

• **equal emphasis on process**

• **genuine curiosity, wonderment and questioning**

• **student 'voice' is evident**

• **prior knowledge is ascertained**

• **significant concepts and essential questions**

• **students are actively involved in constructing understandings**

• **learning takes place in a social context**

• there is an assumption that **understandings are temporal and are constantly reviewed and refined** on the basis of new learning and questions – therefore

inquiry is 'recursive' in nature

• **reflection, metacognition and depth of thought**

• **learning leads to action**

This strategy depends primarily on the use of thinking skills, while its importance is reflected in:

- Gain logical thinking skills, persuasion.

- Knowledge and the diversity of its sources make critical thinking an imperative of the times.

Case Based Learning

Strategies To Be Adopted

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Experiential Learning Strategy

'**one learns from experience**'

- undergraduate medical students learning from patients during clerkships,
- residents learning whilst caring for patients,
- trained physicians sustaining and enhancing their mastery of clinical practice.
- dissecting a cadaver,
- participating in a problem-based learning group,
- being instructed in a skills laboratory
- Authentic experience gained in clinical workplaces
- Projects

- Learning is 'situated'. It cannot be dissociated from the context in which it occurs and an important aspect of any such context is its social nature.

- Developing transferable learning requires understanding both the context in which learning was originally situated and its potential for applicability in other contexts with or without refinement.

- Learning can be viewed either as an individual or a collective process. Interactions are fundamental to experiential learning. This means that, although individuals may construct different understandings from experience, these are still considered to derive from multi-directional influences between them and others in the context; that is, from a collective experience.

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Collaborative Learning Strategy

A strategy in which students work together in small groups to perform a task or a specific project that meets their needs and interests, and is consistent with their strengths

The objectives of using cooperative learning groups are:

1. Reducing the level of competition and mitigating the low level of self-esteem that some students may reach as a result of their previous failures.

2. Increase students 'respect and understanding of others' abilities, interests and needs.

3. improvement in the outputs of the educational process in terms of positive appreciation, improvement of social adaptation, mental health, acquisition of social skills, increased academic achievement, and access to a high level of mental reasoning.

- collaborative learning group interaction include brainstorming, contemplative discussions, decision-making deliberations, and research.

However, cooperative learning groups do not achieve these accomplishments unless they have the following elements:

1. Positive independence.
2. Face to face interaction.
3. Individual responsibility.
4. Social skills and abilities.
5. Group members think about their interactions.

The most important principles governing the success of cooperative learning groups have been identified

1. Formation of groups

2. The number of group members:

3. Time:

4. Objectives:

5. Follow-up and intervention:

6. Individual accounting:

7. Meditation:

CBC Learning

Team Based Learning

Koles et al. Acad Med 85:1739;2010

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Peer Assisted Learning / Evaluation Strategy

The General Medical Council stated in Tomorrow's Doctors that medical graduates must "Be able to demonstrate appropriate teaching skills"

"People from similar social groupings who are not professional teachers helping each other to learn and learning themselves by teaching"

Students Become PAL tutors

NARS 2017

Competency Area V: The graduate as a member of the health team and a part of the health care system

The graduate should work and collaborate effectively with physicians and other colleagues in the health care professions, demonstrating an awareness of and a respect for their roles in delivering safe, effective patient- and population-centered care. He/she should be committed to his/her role as a part of health care system, respecting its hierarchy and rules and using his/her administrative and leadership skills to add value to the system. The graduate should be able to:

5.1 Recognize the important role played by other health care professions in patients' management.

5.2 Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.

5.3 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.

5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.

5.5 Communicate effectively using a written health record, electronic medical record, or other digital technology.

5.6 Evaluate his/her work and that of others using constructive feedback.

5.7 Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.

5.8 Apply fundamental knowledge of health economics to ensure the efficiency and effectiveness of the health care system.

5.9 Use health informatics to improve the quality of patient care.

5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.

5.11 Improve the health service provision by applying a process of continuous quality improvement.

5.12 Demonstrate accountability to patients, society, and the profession.

NARS 2017

Competency Area VI: The graduate as a lifelong learner and researcher

The graduate should demonstrate a lifelong commitment to excellence in practice through continuous learning and professional development. He should reflect on his own performance, and plan for his own development making use of all possible learning resources. The graduate should have an inquisitive mind and adopt sound scientific research methodology to deal with practice uncertainty and knowledge gaps and to contribute to the development of his profession as well as for the purpose of his own academic development. The graduate should be able to:

6.1 Regularly reflect on and assess his/her performance using various performance indicators and information sources.

6.2 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice

6.3 Identify opportunities and use various resources for learning.

6.4 Engage in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice.

6.5 Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them.

6.6 Effectively manage learning time and resources and set priorities.

6.7 Demonstrate an understanding of the scientific principles of research including its ethical aspects and scholarly inquiry and Contribute to the work of a research study.

6.8 Critically appraise research studies and scientific papers in terms of integrity, reliability, and applicability.

6.9 Analyze and use numerical data including the use of basic statistical methods.

6.10 Summarize and present to professional and lay audiences the findings of relevant research and scholarly inquiry.

Peer Assisted Learning / Evaluation Strategy

- PAL approaches have been considered by many curriculum developers as a useful way of providing specific learning opportunities in teaching. **Additionally,** healthcare professionals are now expected to be skilled in lifelong learning and team-working, and PAL approaches have been shown to help students develop competence in these areas also.

Peer Assisted Evaluation

The goal of this strategy is to train students in assessment, criticism, and decision making. They also know the way in which the correction and appraisal process is done, to take them into account in their upcoming works and achievements

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Learning Strategy With The Help of Information Technology

- The use of information technology in education stages is one of the major sources of economic progress in countries.

- The reasons for this are that the regular evaluation of teaching and learning with the help of information technology in all its various forms includes (integrated learning systems, interactive multimedia, interactive learning environments, virtual learning).

- It can be defined as: "An educational system that adopts interactive information and communication technology (such as (the Internet, TV channels, e-mail, computers, and teleconferencing ...) in providing educational or training programs for students or trainees at any time and in any place, using a synchronous method or Asynchronous".

- **It is, therefore,** more than a learner who works on a computer, tablet or smartphone

Including learning strategies with the help of information technology can lead to rich learning experiences: it allows for rich learning experiences that are:

1. Individual….

2. Interactive……

3. Self-track…..

4. Safe….

5. Rich Approaches……..

6. Diversity of learning styles: *This strategy has multiple "tactics". The following can be used:*

Distance learning…..

Open and flexible learning…….

Group learning…….

Educational offers…….