Integrated Teaching-in Medical Education

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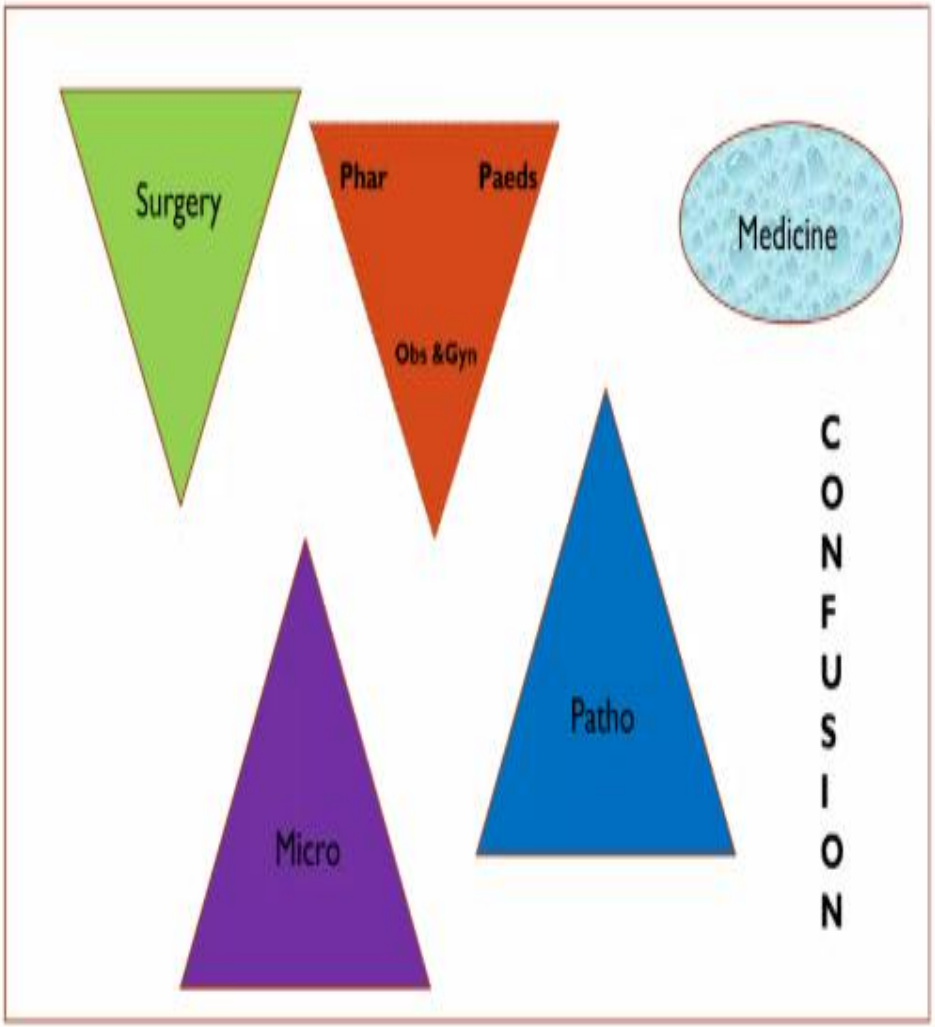
Objectives

By the end of the session you should be able to .

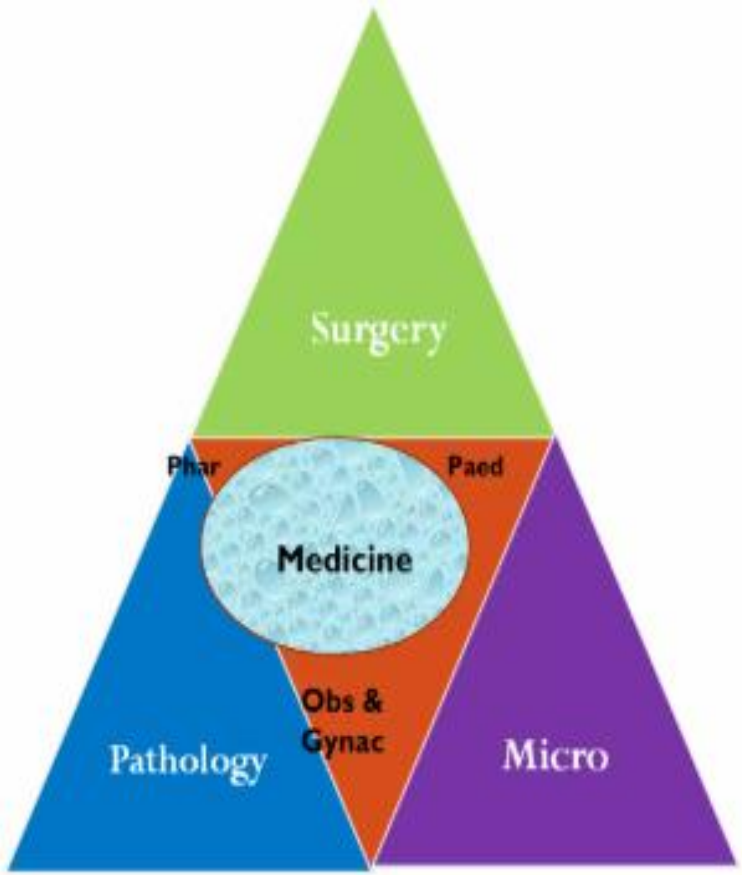
- Define integrated teaching
- Explain difference between integrated teaching and traditional teaching
- Types of integrated teaching
- Identify the need for integrated teaching
- Plan of teaching session and assessment

Isolation or integration

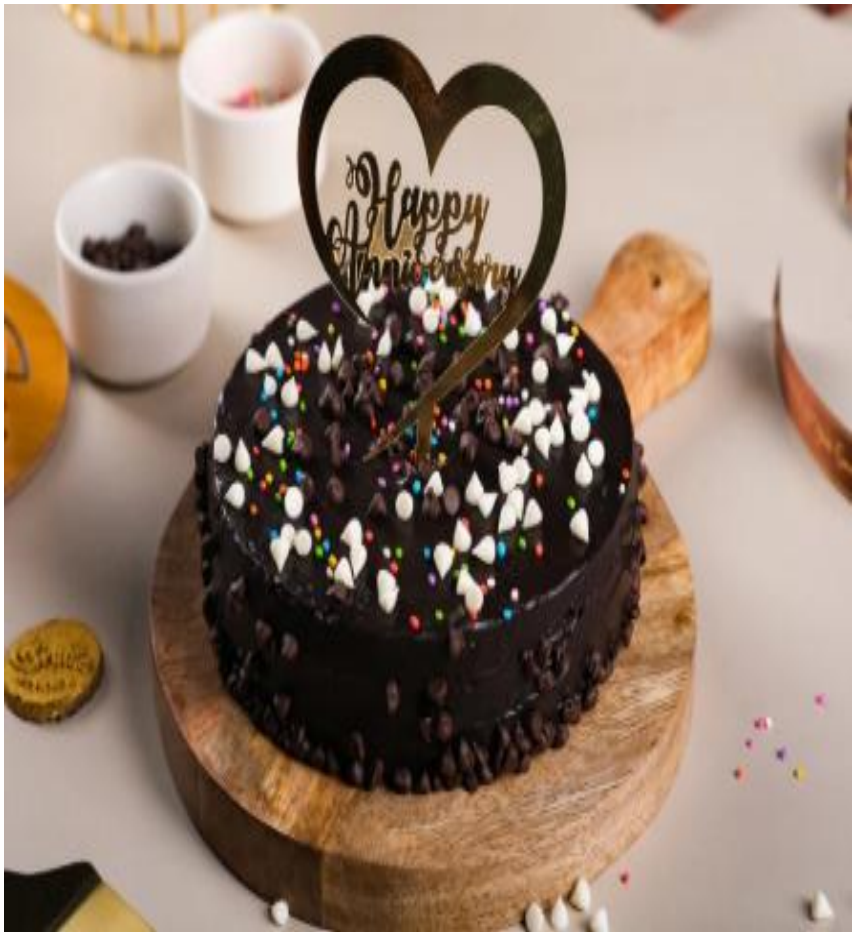
Piece-meal – Tuberculosis



Make a whole



BETTER UNDERSTANDING



Integration and its concept

- **Term** integration – Latin word Integer
- Coordination of different activities
- **Why** - ensure a harmonious function
- **Concept** - Integration denotes coordination of different activities to ensure harmonious functioning
- **Aim** - Holistic rather than fragmented

Purpose

In Medical education

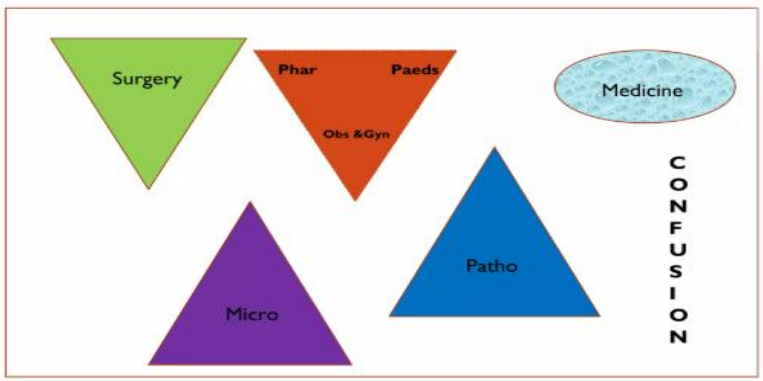
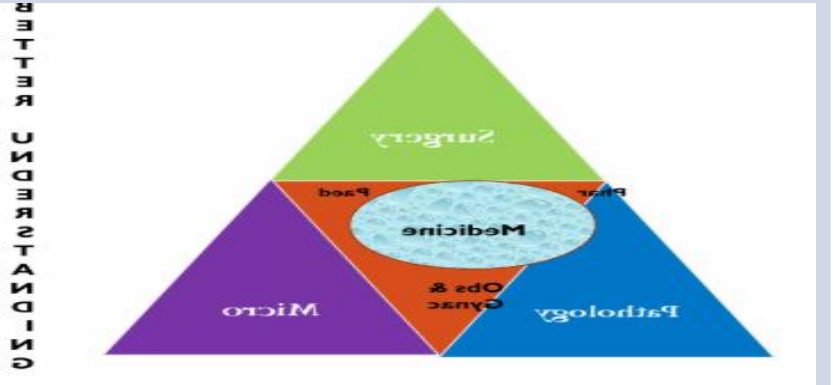
- The purpose of the integration is to increase the effectiveness of the teaching- learning process.

Definition- Integrated teaching

- It is defined as coordination between teaching learning activities to ensure harmonious functioning of the education process.
- It is a holistic rather than a fragmented approach.

Integrated Curriculum

- It purposefully draws together knowledge, skill, attitude and values - within or across subject areas to develop a more powerful understanding of the key idea.

Isolated	Integration
	

Integrated Curriculum

- Topic “Nephrotic Syndrome”.
- Departments are: Anatomy, Physiology, Biochemistry, Pathology, pediatrics and General medicine.
- Gross anatomy of kidney
- Physiology of Kidney
- Biochemical changes
- Pathology and Pathogenesis
- Clinical features and management by Internal Medicine departments

Integrated Curriculum

- Integrated Curriculum when the components of the curriculum are connected and related in a meaningful way both for the students and the teachers
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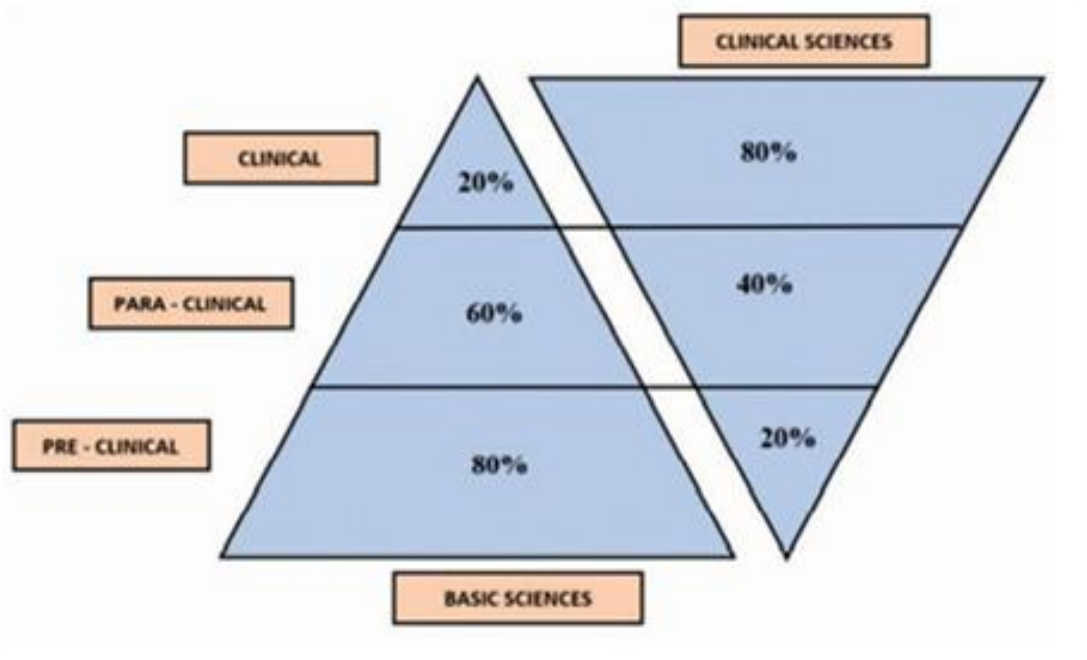
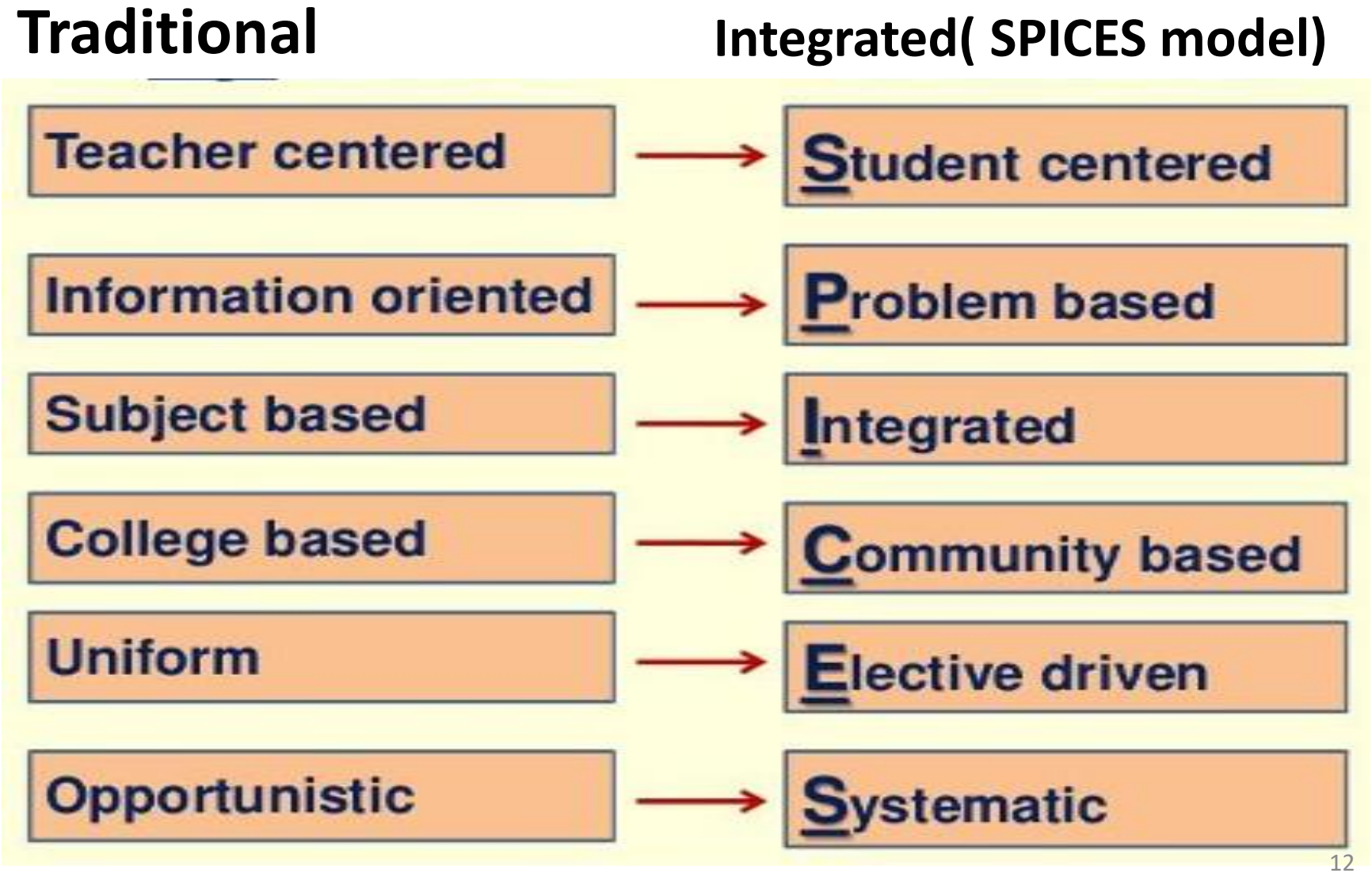


Integrated curriculum(Harden 1984)



Difference

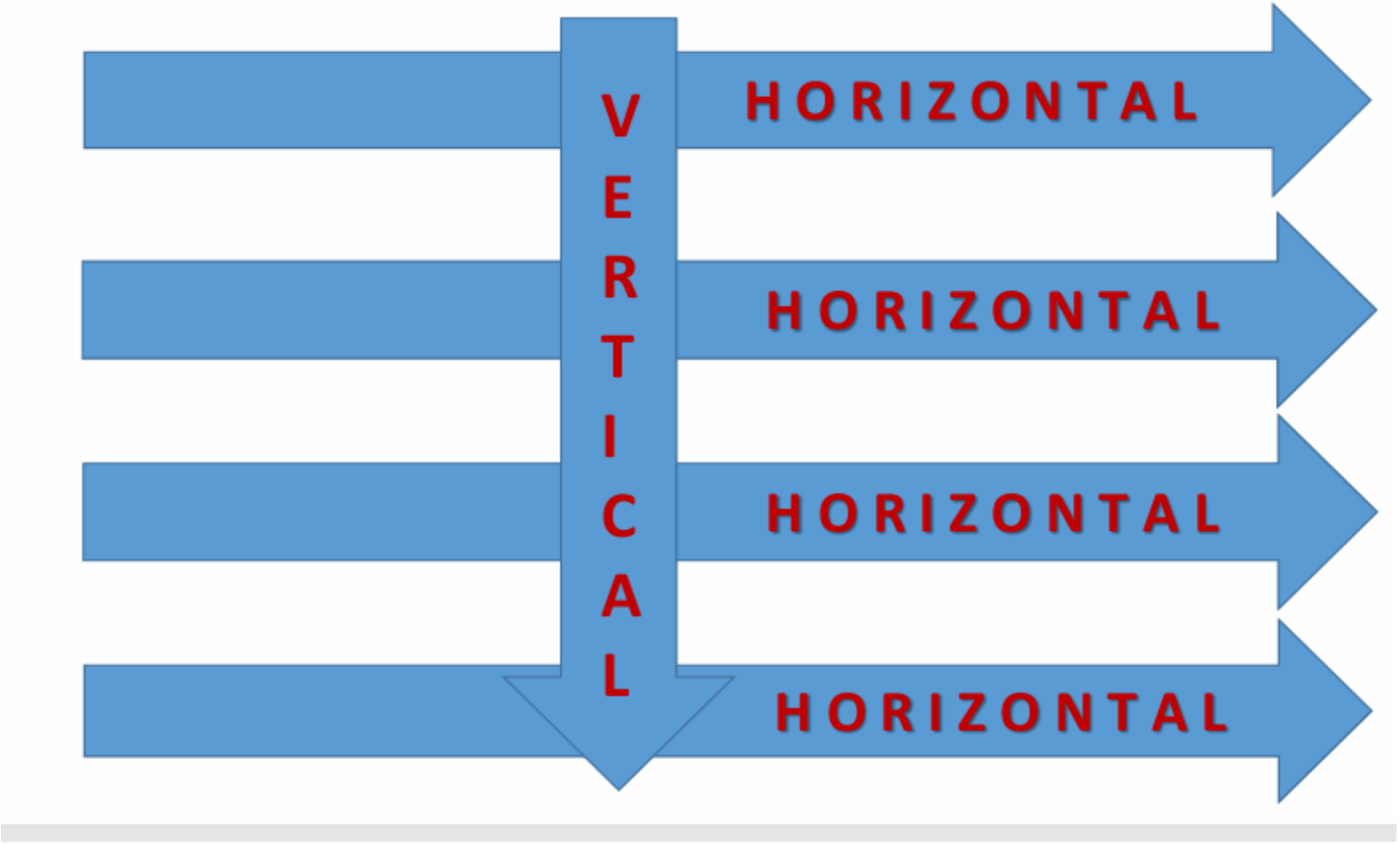
Traditional (Disadvantages)

- Discipline based
- Teacher centered
- Exam oriented
- Passive learner
- When placed in clinical ward – forgot and fail to correlate the basic with clinical
- Wastage of time
- Memorization, recall and regurgitation in exam
- Not life long learner

Integrated (Advantages)

- ↓ Fragmentation
- ↓ Repetition and wastage of time
- ↓Content overload
- Apply basic, preclinical knowledge in clinical practice
- Helps students self directed learning
- life long learner
- ↑interdepartmental collaboration

Types of integration



Horizontal integration:

- It brings together the disciplines, topics, and subjects, and refers to the provision of learning within the structure
- where individual departments/subject areas contribute to the development and delivery of learning in a meaningful, holistic manner.
- Subjects within the same phase

Vertical integration

- Brings together pre, para and clinical sciences, and combines basic and clinical sciences - that breaks the traditional division between preclinical and clinical studies .
- Basic science is represented clearly in the curriculum within the clinical environments during all the years of undergraduate education.

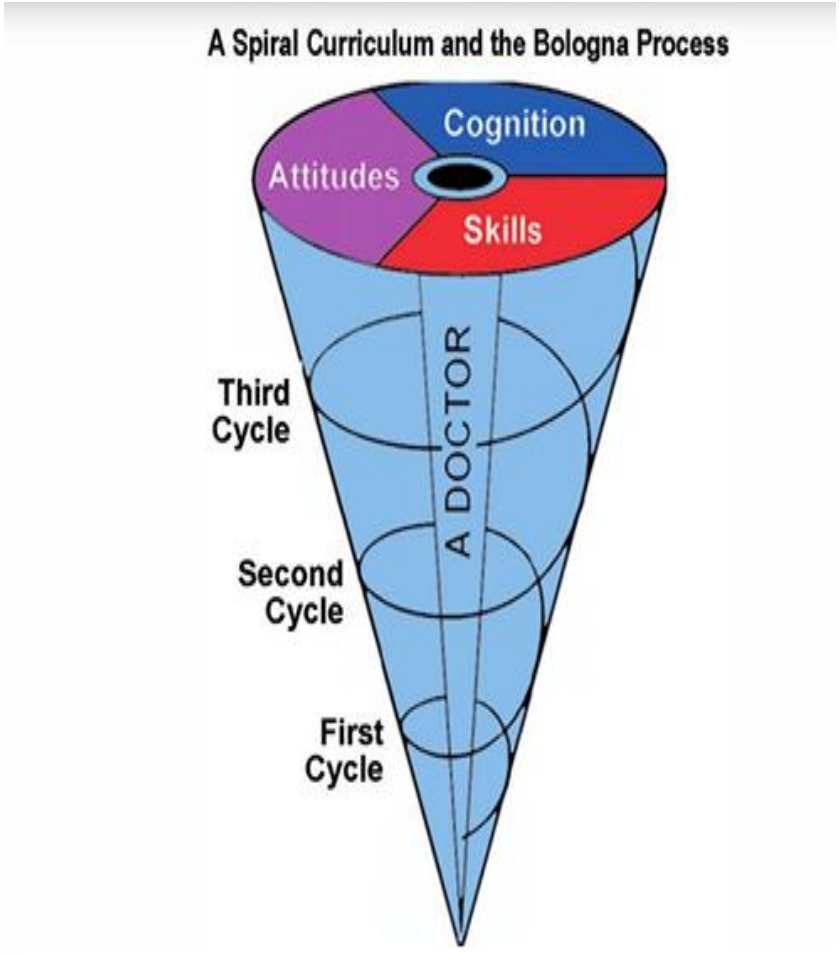
Vertical integration

- learning of basic science is placed in the context of clinical and professional practice and seems to be more meaningful and relevant to the students.

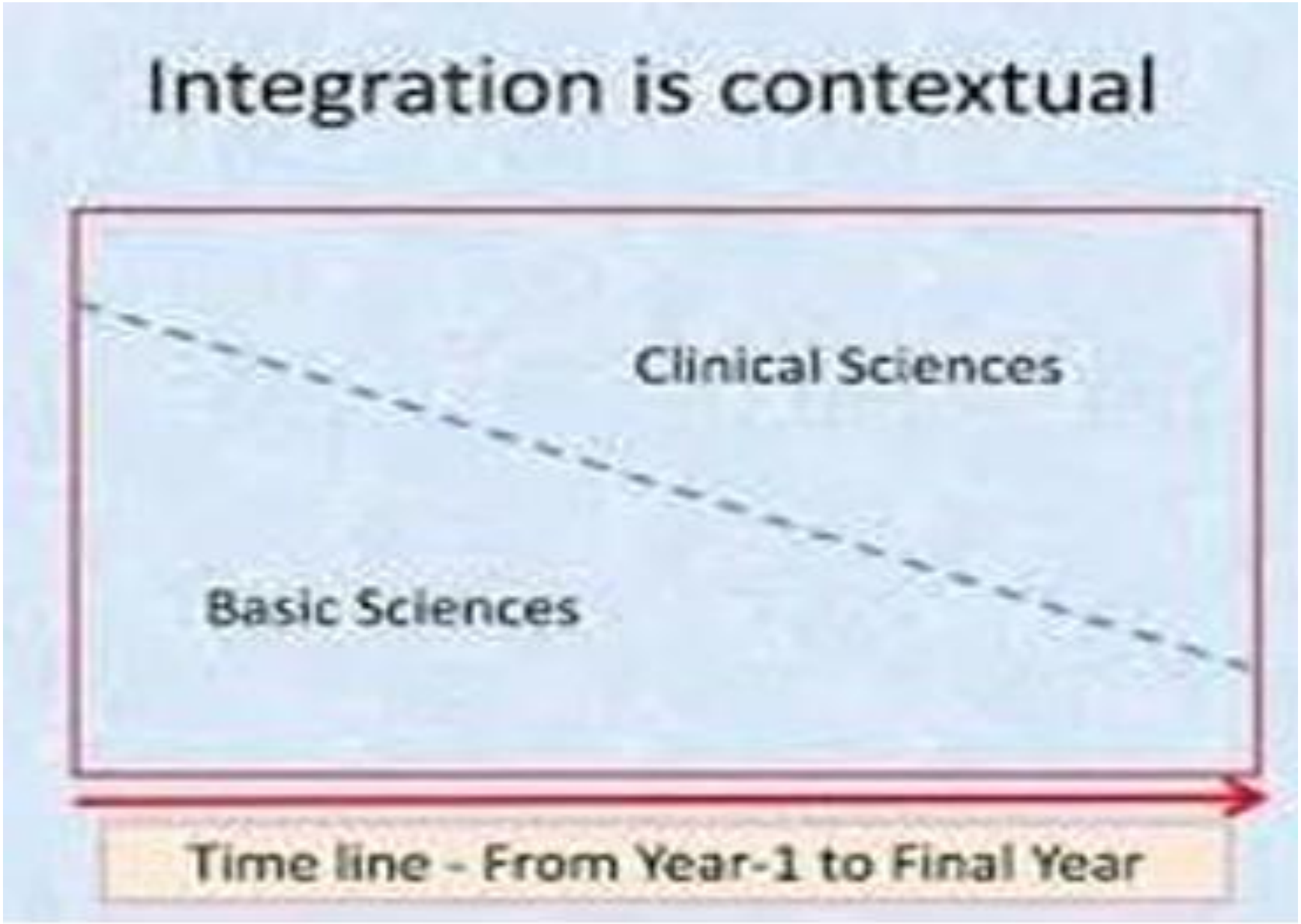
Example

- **Horizontal:** Combined teaching-learning of renal structure and function by Anatomy and Physiology.
- **Vertical:** Combined teaching-learning of renal failure by Pathology and Medicine departments.
- **Both:** Combined teaching-learning of renal failure by the departments of Physiology, Pathology, Medicine and Surgery.

Spiral curriculum



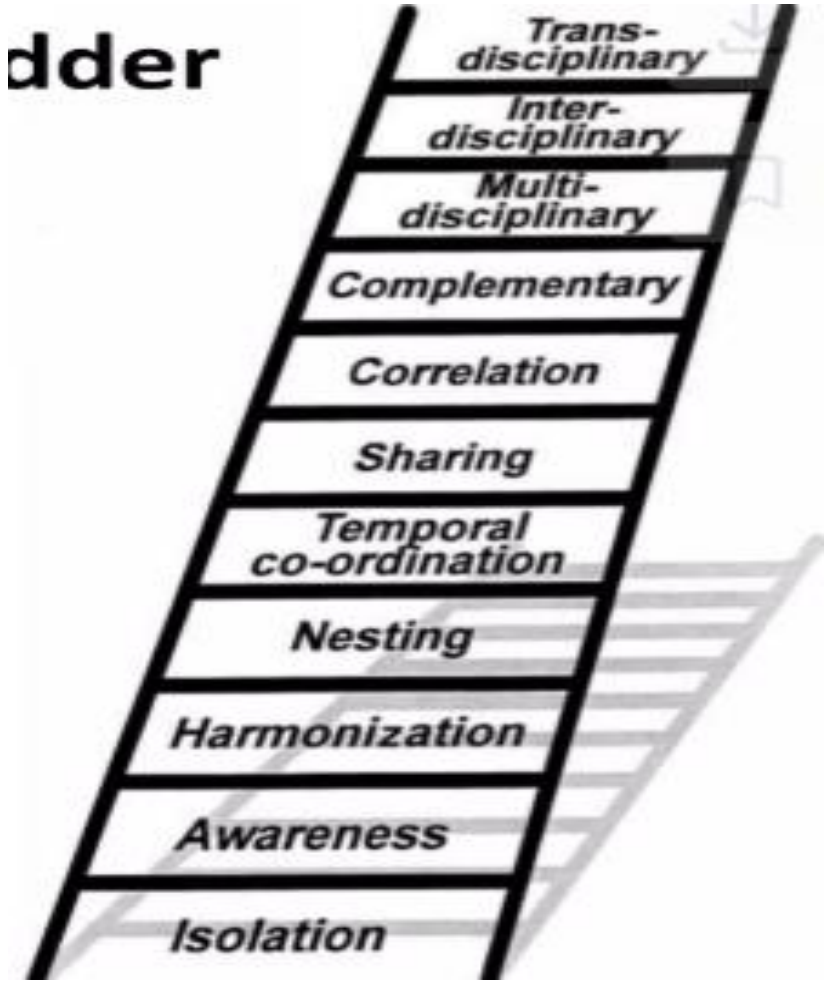
A spiral curriculum design is one in which "key concepts are presented repeatedly throughout the curriculum , but with deepening layers of complexity."


Integration is contextual
Clinical Sciences
Basic Sciences
Time line - From Year-1 to Final Year

Problems of Integration

- Lack of cooperation
- Additional trained staffs
- Need good and effective chin of communications – basic and clinical sciences
- Need for major changes in some areas of curriculum
- So, Start with something simple and manageable

Integration Ladder – Harden



- Sequential steps for development IC
- One Step to next step
- Helps us to understand how much integration is already there or not at all
- How to progress up to the ladder

1 & 2 – non integration

- Step 1 is **isolation:** faculty organize their teaching without considering other subjects or disciplines.

- Step 2 is **awareness:** teachers of one subject are aware of what is covered elsewhere, but ***no attempt is made*** to help students look at a subject in an integrated manner.

3 to 5- Early integration effort

- Step 3 is **harmonization:** teachers ***communicate with each other*** about their courses and ***adapt their content*** accordingly.
- Step 4 is **nesting** (or infusion): teachers targe content from other courses within their own courses .
- *Step 5 is **temporal co-ordination:** similar content is covered in parallel across* courses.

6 to 8- Cooperative Integration

- Step 6 is **sharing or joint teaching:** often conducted when there are common areas of content or there is a need to include new content in a curriculum
- Step 7 is **correlation:** an integrated teaching session may be introduced in addition to subject-based teaching.
- Step 8 is **complementary programming**, often related to a theme or topic to which several disciplines can contribute (eg., climate change of UGC)

9 to 11- Collaborative Integration

- Step 9 is **multi-disciplinary:** themes/subject ma[illegible] cuts across subject boundaries; viewed through multidisciplinary lens; disciplines maintain their own identity and understanding of the problem.
- Step 10 is **inter-disciplinary:** further development of the commonalities across disciplines and the ***discipline boundaries overlap and merge***.
- Step 11 is **trans-disciplinary is learner-centred:** the curriculum enables the learner to construct meaning from the integrated learning experience. (eg, BLS/ACLS/PALS for health-professions)

What is the global scenario?

- Curricula has been reviewed
- increased use of community as learning resource;
- Innovative approaches – Task based learning /problem-based learning(PBL) with PS attitude
- community-oriented education
- Greater flexibility has been introduced
- Teachers' training on medical education has been initiated.
- Quality assurance.

What is the global scenario?

- Accreditation
- Curriculum evaluation mechanisms are being implemented.
- Establishment of medical education units in medical schools
- Teaching methodologies and research

Integrated teaching – in south east Asia

- Malaysia
- Nepal
- Srilanka
- India
- Thailand

It is the time we need to think where we are ?

Learning objectives

- Define integrated teaching
- Explain difference between integrated teaching and traditional teaching
- Approaches of integrated teaching
- Identify the need for integrated teaching

Take Home massage

- Knowledge Learnt in Isolation is Rapidly Forgotten
- Integration is the backbone of present-day curriculum which is a ray of hope in medical education for the medical students of 21st century


Thank
You