23. Imaginative Techniques for Educating

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Today it is impossible for students to absorb all of the information in a lecture (limited short-term memory) .so we need every student to understand and learn the concept. For this need more effective approach that is students actively thinking and learning.

For effective teaching approach we need to follow and implement certain Strategies like, Student-centered instruction (Adult learning/Adult education), Problem-based learning, and Competency-based (outcomes-based) instruction (OBE).

In Student-Centered Learning we have to Substitute active learning projects and experiments. In this we have to assign open- ended questions and problems.

By using this approach students can understand the theory, principles and concepts.

In Problem-based learning, students are able to analysis the problems and conquer the optimal solution by implementing this type of approach.

In outcomes-based instruction, the course instruction itself we need to specify the course objective and outcomes .in this

approach we are instruct and teach the topics based on the course objectives and outcomes .it will help the students to know the outcome of every course and respective to the curriculum-related.

Innovative Methods of Teaching

We think of the effective teachers we have had over the years with a sense of recognition, but those who have touched our humanity we remember with a deep sense of gratitude.

- We think too much about effective methods of teaching and not enough about effective methods of learning.

- Teaching must include two major components sending and receiving information

- Any communication methods that serve this purpose without destroying the objective could be considered as innovative methods of teaching.

- Benefits of innovative methods are Improve Learning process and Strengthen governance

- Student's Expectations

- Want solid knowledge base and real-world applications

- Want clear and organized presentation of material

- Want to be stimulated, active and participatory

- Want to know why (how does this activity, reading connect to my future career?)

- Want faculty to be enthusiastic, helpful and engaged

- Expect "customer service"

- Want face-to-face contact but accept boundaries

Faculty's Challenges

- Time

- Keeping up with their field

- Dealing with students with varied backgrounds and skill levels

Strategies

- We must understand learners

- Accept differences among students and between students and faculty

- Engage students in setting goals and expectations

- Be flexible, creative and try not to be surprised by anything that happens in the classroom!

Students

- Learn best when outcomes are clear and integrated into relevant context

- Need practical - not hypothetical - experiences

- Competencies

- Increase relevance and accountability in curricula

- Challenges

- Too many competencies

- Levels vary

- Assessment

Teaching Strategies

- Set context

- Tie topics together continually

- Pre-assignments

- In class lectures and activities

- Opportunity to practice – with feedback

- Audience response system "clickers"

- Short but realistic examples

Assessments

- Check-in

- Are students learning?

- How do you know?

- What could be improved?

Analysis of Traditional Method of Teaching Limitations

- Teaching in classroom using chalk and talk is "one-way flow" of information

- Teachers often continuously talk for an hour without knowing students response and feedback.

- The material presented is only based on lecturer notes and textbooks.

- There is insufficient interaction with students in classroom.

- More emphasis has been given on theory without any practical and real-life time situations.

- Learning from memorization but not understanding.

>Innovative Methods of Teaching
>
>I hear and I forget.
>
>I see and I believe.
>
>I do and I understand.
>
>- Confucius

Multimedia Learning Process

- Text

- Images

- Audio

- Video

- Animation

Traditional and Multimedia Learning Traditional Method – A One Way Flow

Multimedia Learning – An Interactive Learning Process

Mind Map

- Innovative way – Mind Map.

- Developed by Tony Buzan 1960.

- Making notes with keywords and images.

- Visual and sensory tools at our disposal.

- Recollect information for long time.

An Example of Mind Map for Scalar Quantities Z to an Approach

This approach attempts to explain the application part of a particular concept first.

Strengths

- Makes a particular concept clear

- Students develop interest to know exactly the concept.

Creates long lasting memory/correlation of a concept.

Weaknesses

- Take quite long time for a teacher to introduce a concept Initial difficulty in understanding a particular concept will be encountered.

Mnemmonics - Words- Words –Words Approach

- Concept approach.

- Associated meaning.

- Increase word power

- Dictionary.

Role Playing and   Scenario Analysis Based Teaching

- Role playing

- Practical approach

- Theory supplemented by practical.

Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning stays young.

LEARNING NEVER ENDS