Adaptive Learning
In Professional Education

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Head & Neck Anatomy
96 Hours

- No lectures
- Content Delivered via RealizeIT Adaptive Learning Platform
- Flipped Classroom Sessions
  - Blended Learning
  - Faculty & Student TAs
  - Peer to Peer Learning
  - Small Group/Large Group
  - Cases
  - Presentations
Earlier this year, two Stanford professors published a piece in the New England Journal of Medicine proposing to re-imagine medical education with “lecture-less” classes in an effort to make better use of the fixed amount of educational time available to train doctors.

The proposed approach was inspired by the Khan Academy’s “flipped-classroom” model of teaching. Lecture content is packaged into 10- to 15-minute videos that are watched by students at their own pace and as often as necessary to learn the material. Class time is then used for interactive learning, with a greater emphasis on patients’ clinical stories as a way to increase the relevance of the necessary scientific and medical knowledge.
FACULTY MEMBERS

LECTURE HALL

SMALL GROUP

SMALL GROUP

SMALL GROUP

SMALL GROUP

Value added

CLINIC

Engaged

Peer-Peer

Application

Critical Thinking
3 DIMENSIONS OF LEARNING

Passive
Lecture, audio-visual, text

Engaging, Application
Activities, challenges, games

Critical Thinking
Motivation, application, Problem-solving, Doing
Intelligent engine

- Manages evidence
- Provides granular and cumulative metrics
- Provides dynamic learning paths
- Determines scope of knowledge and skills; identifies weaknesses
- Supports integration of knowledge across domains
- Performs gap analysis
- Adapts to learners
- Provides personalized learning
- Supports collaborative learning
- Manages the full real-world learning cycle
Extend knowledge space to the cloud

- System Delivers
  - Knowledge elements
  - Discrete individual learning objectives
- Introduce process elements
  - Classroom teaching
  - Group activities
  - Research to be carried out
  - Collaboration
Typical Course Structure
- Passive Learning
- Passive Faculty Management
Realize-it Adaptive Learning Platform leads to:

Active Learner Participation

Faculty Mentoring

Faculty Monitoring

Faculty Management
Traditional Passive Content Delivery

Methods yield less than 30% Average Retention Rates in immediate post-tests.

6 weeks later can drop to 5%.

The Learning Pyramid, taken from “Corporate Universities” by Jeanne Meister
Interactive learning activities can explode long-term retention rates by up to 10x.

Interactive learning activities include:

- Retention
- Understanding
- Application
- Collaboration
- Scenario-based Practice
- Learning from each other

The Learning Pyramid, taken from “Corporate Universities” by Jeanne Meister
Motivation comes in two flavors:

**Extrinsic:**
- Rewards
- Recognition
- Competition
- Simulation/animation

**Intrinsic:**
- Resolving a challenge
- Satisfaction of learning
- Self-actualization

Critical Thinking
Problem Solving

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The Learning Pyramid, taken from “Corporate Universities” by Jeanne Meister
Student learns and interacts with content through online adaptive learning

Faculty supervised

Integrated learning experience

Adaptive Learning Platform

Flipped
Hybrid Class
Sessions

Case Studies
Group Presentations

Faculty Mentoring
Peer to Peer Identification
Model Building
New for Upcoming Year

- College of Dental Medicine
  - Head & Neck Anatomy
  - Gross Anatomy
  - Oral Pathology
  - General Curriculum Courses
- Masters of Medical Science
  - Head & Neck Anatomy
- Podiatry
  - Lower Limb
- Medical School
  - 3rd & 4th Year Curriculum