Dynamind an e-Teacher & e-Trainer

Interactive Distance Education Using AI & Cloud

From i2K Solutions, Mumbai

World IT Forum 2012, New Delhi

Presented by Krishan Khanna, Chairman, i2K

April 17th ï 18th 2012
Effective Learning

• Optimizing learning

• Maximizing potential

• Each and every individual
Some important educational theories

1. Edgar Dale’s cone of learning
2. Bloom’s Taxonomy
3. Howard Gardner’s theory of Multiple Intelligence
4. Bloom’s 2 sigma problem
Cone of learning

Summary –
Degree of learning is directly proportional to level of engagement of learner
Summary –
Degree of learning is directly proportional to level of engagement of learner
Howard Gardner Theory of Multiple Intelligence (MI)

- Bodily-kinesthetic
- Interpersonal
- Verbal-linguistic
- Logical-mathematical
- Naturalistic
- Intrapersonal
- Visual-spatial
- Musical

Summary –
Degree of learning is directly proportional to level of engagement of learner
Bloom’s 2 sigma problem

A 50 percentile student will score above 98 percentile if provided with One-on-One training!


Summary – 
Degree of learning is directly proportional to level of engagement of learner
All research in education & learning concludes

Degree of engagement of learner is the key!
Degree of learner engagement

How does it create maximum impact?
Information processing in humans

- Visual
- Hippocampus
- Amygdala
- Prefrontal Cortex
- Hypothalamus
- Motor Cortex

Synapses strengthening and Myelin build up around neurons better performance of nerves
Engagement Framework

4 step cycle

Exposure to Learning Material

Remedial Step

Measurement of Learning

Feedback

Smaller the 4 step cycle better is the learning
TEAL at MIT

- Traditional large introductory lecture with smaller classes that emphasize hands-on, interactive, collaborative learning

- Failure rate has dropped by more than 50 percent

- The two state-of-the-art TEAL classrooms alone cost $2.5 million
TEAL Strategy

The two 3,000-square-foot TEAL classrooms each contain an instructor's workstation in the center of the room surrounded by 13 round tables, each seating nine students. Thirteen whiteboards and eight video projectors with screens dot the room's periphery.

Each table holds three groups of three. Groups are formed by mixing students of varying levels of knowledge in a single group to facilitate peer instruction.

Each group uses a computer to view lecture slides and collect data from experiments.
One-to-One Tuition with **Dynamind**

**Exposure to Learning Material**
Text, Audio, Video or any kind of Multimedia

**Remedial Step**
One-to-One: Based on strengths and weaknesses of each learner

**Measurement of Learning**
One-to-One: Micro Measurement

**Feedback**
One-to-One: Immediate and Continuous
Components of Dynamind

Åe-Teacher / e-Trainer

ÅZenMaster

ÅZenStar
Features of Dynamind

Â Learners â StudyDesk

Â Trainer/Teacher â WorkDesk

Â Administrator â Admin Interface

Â Domain expert â Content Interface
Education & Training using web-based 100% interactive Distance Education & Training with one-to-one Mentoring For

1. Adult & Life Long Learning
2. Corporate Training
3. College & University Education
4. Vocational education & training
5. School Education
Typical e-Learning

- Passive Learning
  - Reading a Demo
  - Hearing a Demo
  - Watching Movie
  - Maximum 50% retention if all done simultaneously

Gain of few

Typical Classroom

- Active Learning
  - Participation in discussion
  - Understanding & learning concepts
  - Doing assignment, exams, quiz
  - Simulating experience
  - Doing the real thing

Gain of some

Typical ‘Dynamind’
Virtual Classroom

- One e-Teacher for every learner

Passive Learning + Active Learning + one-to-one mentoring

Gain of all

All of the above + one-to-one mentoring for handholding and concentrating on weaknesses
Student-Centric system of teaching. No two people are the same, each person is different
100% interactive - 24x7x52 hrs per year
Web based e-Teacher & e-Trainer
Easily scalable to any limit
For schools, colleges, vocational education, corporate training and adult & life-long learning
Low cost High Quality
Handles any type of multimedia e-content
Uses the internet as a resource library
Supports 11 Indian & 54 International languages
Has Collective Intelligence features
About Dynamind

1. The platform is designed to **diagnose weaknesses**

2. **Suggest remedial steps** for each learner, student or a trainee

3. Provides adaptive learning experience **that is customized** as per each user’s needs

4. Our **e-Teacher** is developed on unique bio-inspired computing paradigm

5. **Core architecture** resembles the way information is processed in the human brain

6. Uses patented algorithms

7. Using **Artificial Intelligence** and **Artificial Neural Networking**

8. Provides a **highly personalized and customized** learning experience
Corporate Training Example
web-based 100% interactive
Distance Education & Training

1. Most important resource is Human Resource
2. 5% to 10% of personnel budget used for Corporate Training
3. Nearly US$ 1500 spent per person per year for corporate training in the USA
5. Daily exams, Daily assessments, Daily ranking, Daily results of strengths & weaknesses, One-to-one Tuition for Quality
First Offering with

(You need a PC or Laptop with Flash + internet with 256K bandwidth)

1. Basic Concepts in **Physics, Chemistry & Mathematics** for classes 11th – 12th
   3000 Basic Concepts

2. IITJEE (Tuition for entrance examinations)
   25,000 Q&A for basic concepts in PCM

3. AIEEE (Tuition for entrance examinations)
   15,000 Q&A for basic concepts in PCM

@ Rs. 15,000 per year / student / learner, for item 1, unlimited tuition
@ Rs. 25,000 per year / student / learner, for item 2 & 3, unlimited tuition
For further details visit www.i2k.in
All 31 Demo’s can be seen here

Contact
Krishan Khanna
Chairman
i2K Solutions
krishan@vsnl.com