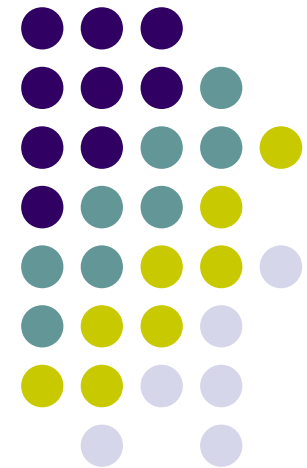




# eLearning

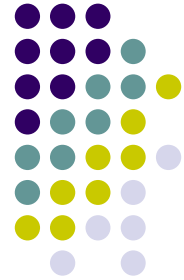
*Anyplace, Anytime*





# Summary Slide

- What is eLearning
- Features and Benefits
- Who uses eLearning?
- Standards
- Instructional Phases
- Effective Instruction
- Motivation
- Ineffective eLearning
- Other Techniques
- Next Steps





# What is eLearning

- eLearning simply describes the use of electronic technology to deliver and administer training
- eLearning also has other names, but the meanings are essentially the same
  - WBT: Web-based Training
  - CBT: Computer-based Training
  - ADL: Advanced Distributed Learning
  - Distance Learning
  - Online Training



# Features and Benefits

- eLearning provides improvements not possible with traditional and instructor-led training:
  - Low-cost, high-impact content creation
    - Easy to use content creation tools. Re-usable, enhanced graphics, video, audio
  - Immediate content delivery
    - WEB enabled, CD ROM, real time updates, global delivery
  - Improved training effectiveness
    - Increased comprehension, increased retention
  - Effective training administration
    - Learning Management Systems (LMS)
  - Reach larger audience (very inexpensively)
  - Significantly reduce overall training costs



# Cost Reductions (50% - 70%)

- eLearning provides numerous financial benefits by reducing **direct costs** of:
  - Content creation
  - Delivery of content
  - Training administration
- Many **indirect costs** are significantly reduced or eliminated:
  - Live instructors
  - Travel & expenses
  - Facilities Materials
  - Lost work time

*Source: Training Magazine*



# Improved Training Effectiveness

- Studies show, and corporate use has proven, that with eLearning:
  - Learner comprehension is **16 times greater**
  - Training time is significantly reduced
  - Content retention is **increased 25% to 60%** on average
  - **50% to 60% improved** consistency using eLearning
  - **20% better performance** by eLearning students VS students who are taught in the traditional classroom

*Source: Training Magazine*



# Who uses eLearning?

- Primary and Secondary Educational Institutions
- Colleges and Universities
- Trade and Technical Schools
- Private and Public
- All corporate types and sizes:
  - Manufacturing
  - Distribution
  - Sales and Marketing
  - Service
  - Franchises
  - Wholesale
  - Retail
  - Hi-tech, low-tech, *no*-tech
  - Non-profit organizations



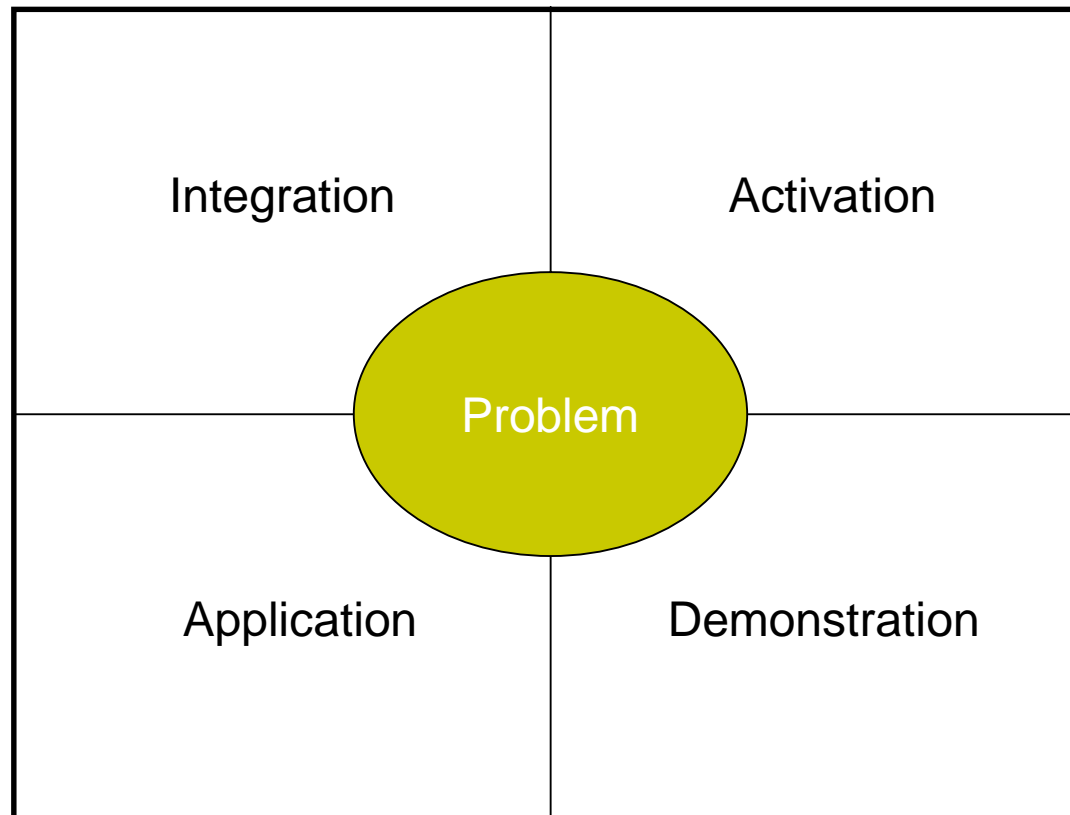
# Standards

- Allows plug-and-play content to run in standards based compliant LMS's
- Existing Standards
  - Instructional Management Systems (IMS)
  - Aviation Industry CBT Committee (AICC)
  - Shareable Courseware Object Reference Model (SCORM)





# Instructional Phases

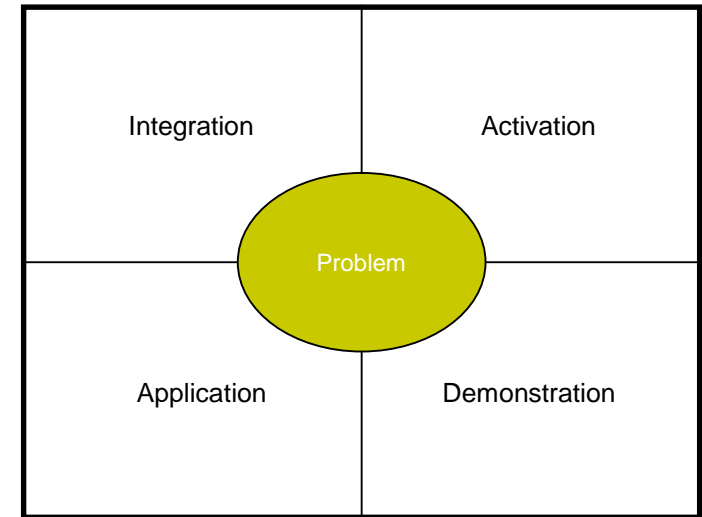


*Source: David Merrill*



# Effective Instruction

- ★ **problems** to solve
  - Solve real world problems
- ★ **activation** of previous experience
  - Build on the foundation of previous learning, engage students, different entry points, relevant analogies
- ★ **demonstration** of the skill to be learned
  - Tell, Show, Do, Ask
- ★ **application** of the skill being learned
  - Provide appropriate practice (Tell, Show, Do, Ask)
- ★ **integration** of the skill into daily activities
  - Real life use



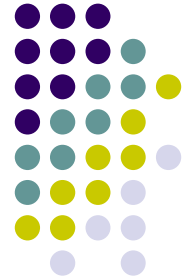
*Source: David Merrill*



# Types of Information (Activation)

- Information-about
- Parts-of
- Kinds-of
- How-to
- What-happens

Project Management Example



## Use of multi-media

- Media is used to the extent that it is relevant to the content and to the extent that it enhances the learning
- Media can be used to address the different kinds of learners (auditory, visual and kinesthetic)
- Don't repeat the "talking-head" effect (very passive, non-engaging)
- Avoid mental models and analogies not directly related to the immediate subject matter being taught

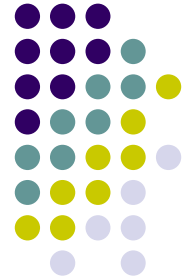
[ROBOT Example](#)

[CPC Example](#)



# Student Interaction (Integration)

- Simulation
- Chat rooms – reflect, discuss and defend
- Email – one-on-one interaction
- Bulletin Boards – create, invent or explore new ideas



# Motivation

- Set and confirm objectives / expectations
- Require commitment
- What's In It for Me - benefits
- Engage Learner
  - Problem Solving, Rhetoric Questions, Results
- Collaboration
- Rewards
  - Certificates, Gifts
- Competition
- Deadlines
- Contributions
- Intervention – unmotivated learners



# Ineffective eLearning

*“Over the years I have had the opportunity to evaluate hundreds of instructional products. An amazing number of these are surprisingly **ineffective** and some **do not teach** at all. Like a book, too much instruction is judged by its cover -- the glitz, glitter, or game-like interaction -- that too often is **irrelevant** to the effectiveness of the instruction. ... we are attempting to look beneath the "production quality" of an instructional product to the instructional strategies involved, those aspects of the instruction that are hard to observe on the surface, but that determine whether or not the product will **really teach**. ... learn to rate an instructional product on those characteristics that effect its ability to teach rather than those attributes that contribute only to its "**market appeal**". “*

David Merrill

[Fire and Safety Example](#)



# Other Techniques

- Exploratory vs guidance
- Self Paced with motivation factors
- Simulation
- Elaboration





# Next Steps

- Evaluate and determine needs
- Establish business case and budget
- Create implementation plan
- Evaluate, select, and develop a key supplier relationship
- Gain internal support (your supplier can help)
- Execute, implement...see improvement and savings



# References

- David Merrill
  - <http://id2.usu.edu/>
- Training Magazine
  - <http://www.trainingmag.com>
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  - <http://iwsun4.infoworld.com/articles/ca/xml/>