

# Engaging Active Learning and Multimedia Literacy in IT Education



L. Roger Yin, Ph.D.

Univ. of Wisconsin-Whitewater

USA

# Curriculum as a Knowledge Base




- ⌘ Organic
- ⌘ Dynamic
- ⌘ Adaptive
- ⌘ Active/Interactive
- ⌘ Systemic/Holistic
- ⌘ Constructive

# Curricular Development & Knowledge Economy



- ⌘ A curriculum in higher education must be developed as an evolving knowledge base to prepare workforce for the knowledge economy

# Teaching as a Means of Learning



- ⌘ Teachers should continue learning in order to update the courses and sustain the curriculum
- ⌘ Expectations from both learners and teachers should match
- ⌘ Sustainable learning requires both teachers and learners as partners

# Forms of Knowledge – Epistemological View



## ⌘ Specific (*Know that-one*)

☒ Literacy - Learning to follow

## ⌘ General (*Know that-any*)

☒ Basic Competency – Learning to learn with content

## ⌘ Practical (*Know how-to*)

☒ Advanced competency – learning to learn with context

## ⌘ Innovative (*Know what-to-do*)

☒ Fluency – learning as a dialogical process of improvement

# Modes of Learning



## ⌘ Abstract

- ☑ Text, sound

## ⌘ Iconic

- ☑ Video demo, diagram

## ⌘ Enactive


- ☑ Hands-on (learning by doing)

# Active Learning



- ⌘ Learning is a sense-making process
- ⌘ Ability to associate and generalize, not just operational skills and “memory game”
- ⌘ Always ask “why” or “why not” (reasoning)
- ⌘ Come up with original questions and find answers (critical thinking)
- ⌘ Self-motivation is essential

# More Characteristics of Active Learning



- ⌘ Self-meaningful
- ⌘ Self-identified purpose
- ⌘ Self-confidence
- ⌘ Self-drive to recover from mistakes
- ⌘ Self-satisfaction (Joy and fun)
- ⌘ Sense of urgency to learn

# Making Training Video as a Means of Active Learning



- ⌘ In the senior-level Info Security course
- ⌘ Student team of 3-5 chose a relevant info sec topic that can benefit SMB
- ⌘ Each team scripts and produces a training video with SMB as target audience
- ⌘ End product show-and-tell
- ⌘ End product submitted to YouTube

# After Making the Training Video, Students Become...



- ⌘ Reflective Practitioners
- ⌘ Producers rather than mere consumers of multimedia content
- ⌘ Familiar with the notion: The best way to learn is prepare to teach
- ⌘ More ready to perform as business professionals with IT skills

## Student Quotes:



- ⌘ "I feel empowered to synthesize what I know to training other people."
- ⌘ I am telling a story while showing what I know about computer based business solutions, not just trouble-shooting.

# Questions?

