



Building Skills for the Future Critical Competencies

*Nancie Payne, M.S.
Payne & Associates, Inc.
www.payneandassociates.com*

Welcome!

- Getting to Know You & Me
- What's Next?

- Objectives

- Platform of the skills for the 21st Century
- Competencies & skill-building methods
- Hands-on activities & tools

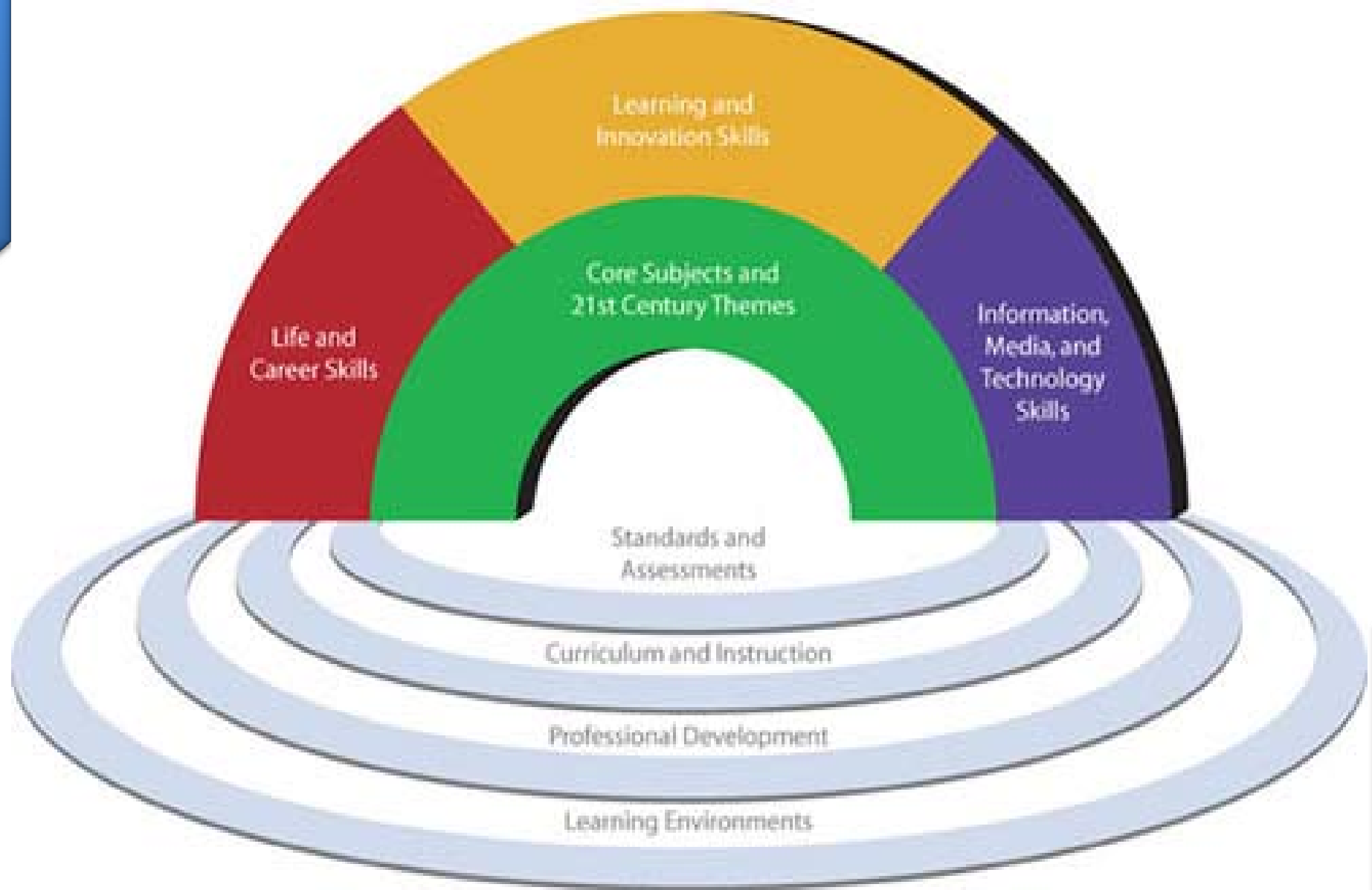


Platform for Skills of the 21st Century

**“School should be less
about preparation for
life and more about
life itself.”**


John Dewey





Platform for Skills of the 21st Century

Core Subjects & Interdisciplinary Themes

- English, Language Arts
 - Reading
 - Foreign Languages
 - Arts
 - Mathematics
 - Economics
 - Science
 - Geography
 - History
 - Government & Civics
- 
- Global Awareness
 - Financial, Economic, Business & Entrepreneurial Literacy
 - Civic Literacy
 - Health Literacy



Platform for Skills of the 21st Century

Life & Career Skills

- Flexibility & Adaptability
- Initiative & Self-direction
- Social & Cross-cultural Skills
- Productivity & Accountability
- Leadership & Responsibility



Information, Media & Technology Skills

- *Information Literacy*
- *Media Literacy*
- *ICT – Information, Communication & Technology Literacy*

Platform for Skills of the 21st Century

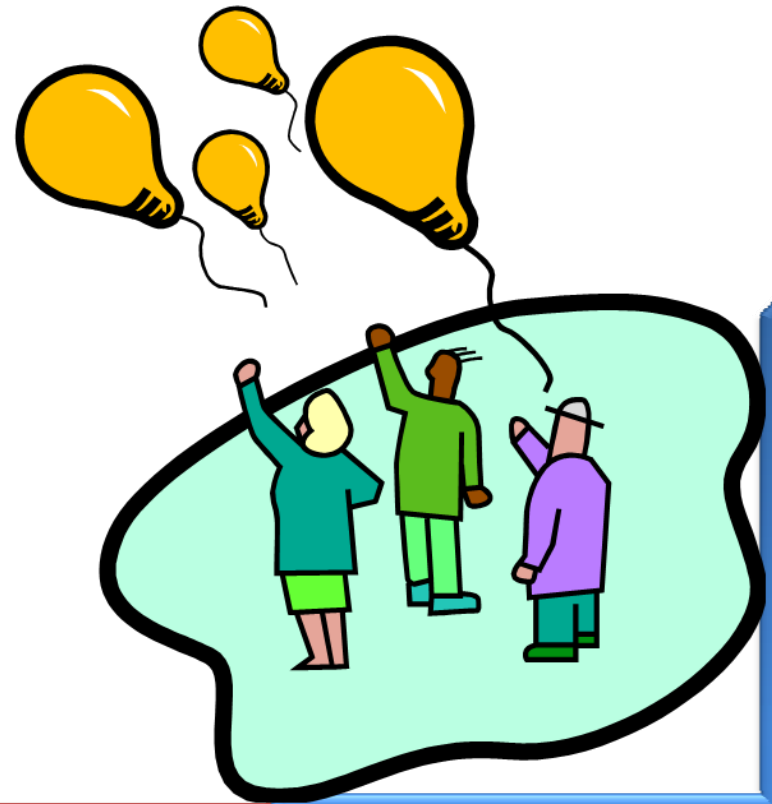
☆ Learning & Innovation Skills

☆ **Critical Thinking & Problem Solving**

☆ **Creativity & Innovation**

☆ **Communication &**

Collaboration



Creativity & Innovation

- *Think Creatively*
 - Use wide range of idea creation techniques
 - Create new & worthwhile ideas (incremental & radical concepts)
 - Elaborate, refine, analyze & evaluate ideas to improve & maximize creative efforts
- *Work Creatively with Others*
 - Develop, implement & communicate new ideas effectively
 - Be open & responsive to new & diverse perspectives; incorporate group input & feedback into work
 - Demonstrate originality & inventiveness in work & understand real world limits to adopting new ideas
 - View failure as an opportunity to learn; understand creativity & innovation is a long-term, cyclical process of small successes & frequent mistakes
- *Implement Innovations*
 - Act on creative ideas to make a tangible & useful contribution to the field in which the innovation will occur

Partnership for 21st Century Skills

Critical Thinking & Problem Solving

- *Reason Effectively*
 - Use various types of reasoning appropriate to situation
- *Use Systems Thinking*
 - Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems
- *Make Judgments & Decisions*
 - Effectively analyze/evaluate evidence, arguments, claims & beliefs
 - Analyze & evaluate major alternative points of view
 - Synthesize & make connections between information & arguments
 - Interpret information & draw conclusions based on best analysis
 - Reflect critically on learning experiences & processes
- *Solve Problems*
 - Solve different kinds of non-familiar problems in both conventional & innovative ways
 - Identify & ask significant questions that clarify various points of view & lead to better solutions

Partnership for 21st Century Skills

Communication & Collaboration

- ***Communicate Clearly***

- Articulate thoughts/ideas effectively using oral, written & nonverbal communication skills in a variety of forms/contexts
- Listen effectively to decipher meaning, including knowledge, values, attitudes & intentions
- Use communication for a range of purposes
- Utilize multiple media & technologies, & know how to judge their effectiveness as well as assess impact
- Communicate effectively in diverse environments

- ***Collaborate with Others***

- Demonstrate ability to work effectively & respectfully with diverse teams
- Exercise flexibility & willingness to be helpful, making necessary compromises to accomplish a common goal
- Assume shared responsibility for collaborative work, & value individual contributions made by each team member

Partnership for 21st Century Skills

Learning & Innovation Skills

- Learning must be a lifelong pursuit – a thirst for knowledge
- The new world of work in which the most desirable jobs – the ones least likely to be automated or outsourced – are those that require *expert thinking* and *complex communication*

Economists Frank Levy & Richard Murnane

- Learning & Innovation Skills focus is
 - *Higher Order Cognitive Competencies*

Learning & Innovation Skills

- **Critical Thinking & Problem Solving**
- **Creativity & Innovation**
- **Communication & Collaboration**



Thinking Creatively

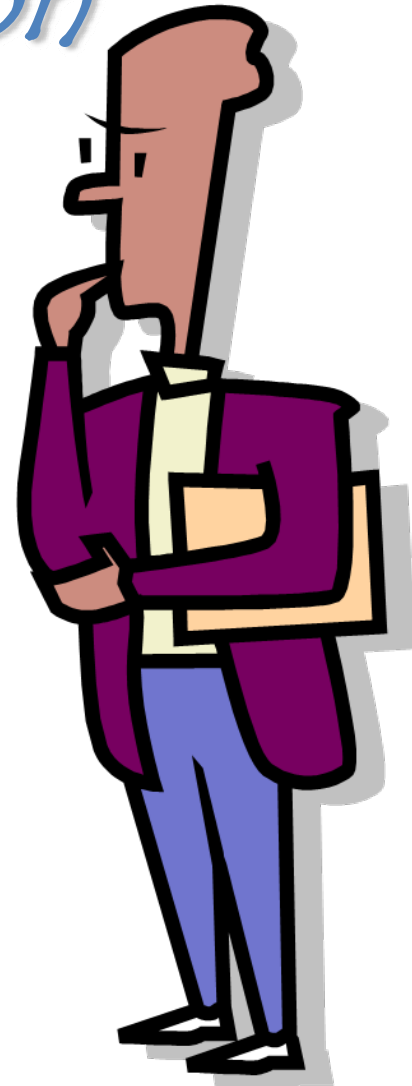
- ***Define Critical Thinking***
- **Brainstorm words that define
“CRITICAL THINKING”**



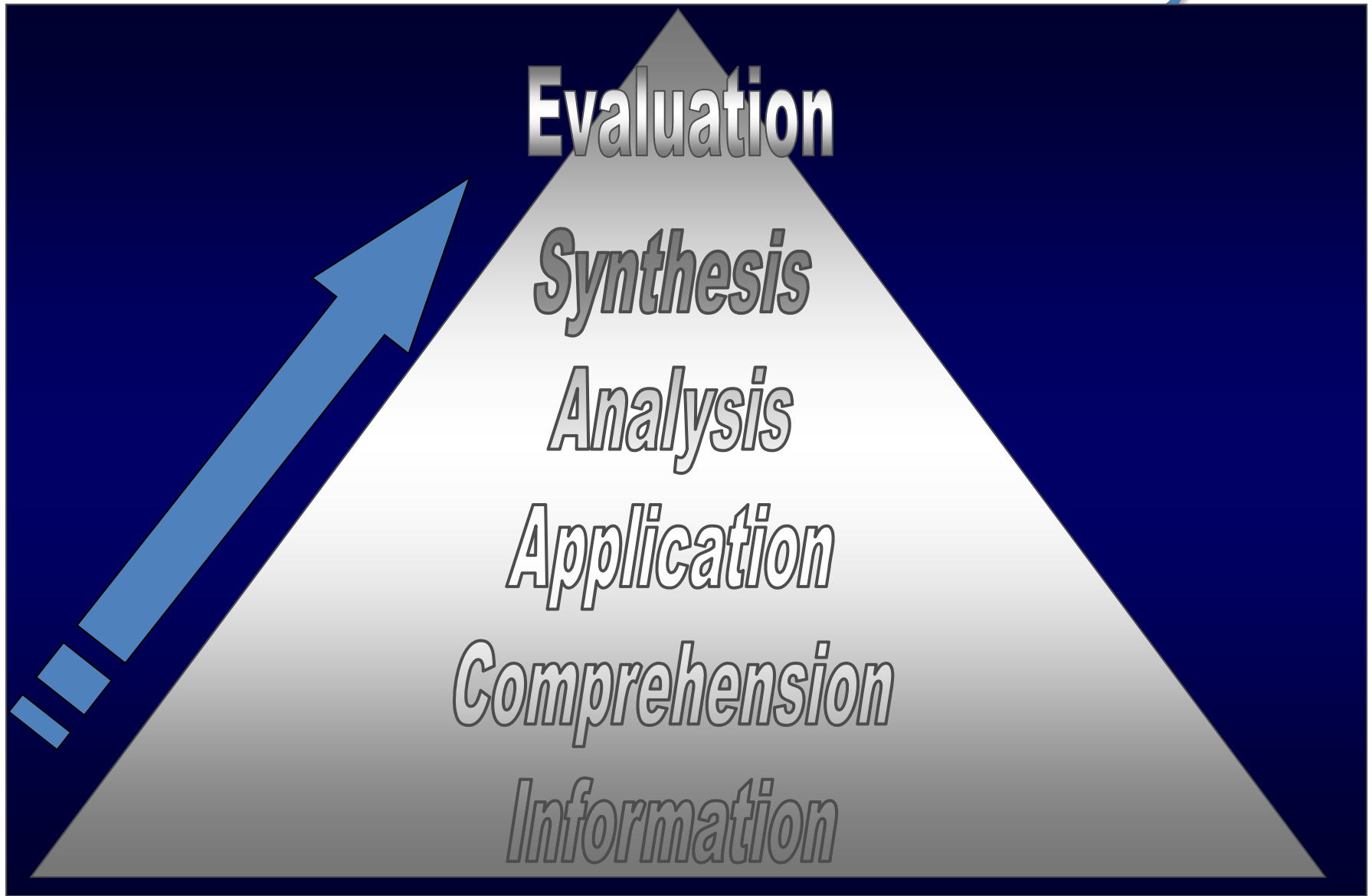
Critical Thinking

A Working Definition

- A process of
 - Actively & skillfully
 - Conceptualizing
 - Applying
 - Synthesizing
 - Evaluating
 - Information gathered from or generated by
 - Observation
 - Experience
 - Reflection
 - Reasoning
 - Communication
 - As a guide to belief & action



Bloom's Taxonomy



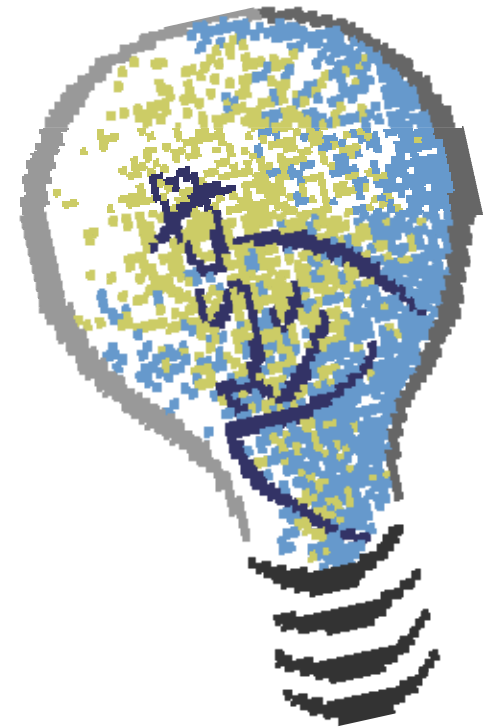
Two Components

- *Skills* to process & generate information & beliefs
- *Habit* of using those skills to guide behavior



Critical Thinking

- **Involves**
 - Analyses of Experiences
 - Reflections & Discernment
 - Discussions
 - Processing
 - Intuitive
 - Creative
 - Emotional



(Jack Mezirow)

Can You do the Following?

- **Locate the argument in a passage**
- **Detect errors in ways of thinking & explain how the thinking is in error**
- **Evaluate evidence & make appropriate assumptions from that evidence?**
- **Distinguish whether an argument's conclusion follows with certainty or only with probability**

Can You do the Following?

- **Identify implied assumptions**
- **Identify the issue in a disagreement**
- **Detect logical inconsistency**
- **Detect & remove vagueness & doubt**
- **Identify the point or purpose of remarks**
- **Create an argument that avoids the misleading notion & makes a probable case for a position on an issue**

Can You do the Following?

- **Given an argument on a controversial issue, create a reasonable argument that defends a different or opposite conclusion**
- **Detect a bad question because its “loaded” or contains hidden faulty data**
- **Be able to explain in what way this is comparable or similar to that**
- **Compare the quality of two competing explanations**

Applied Activities

**Pay ATTENTION to what
they tell you to forget**



Muriel Rukeyser

Name Three Places That...

- Are in your own city
- Are wet
- Have big doors
- You like to go after school
- You have a lot of fun
- A lot of people go to
- People play sports
- You can do your homework at
- Have a lot of books
- Police officers go to
- Musicians go to
- Are very warm
- Are very cold
- You go to on holidays
- You go to during the winter



Metaphors

- **Warm up**
 - I feel..., When I'm happy I'm like...,
- **Object**
 - What object would you be if you had a choice?
- **House**
 - What kind of house would you be if you had a choice?
- **Animal**
 - What kind of animal would you be?
- **Color**
 - What Color are you?

Meggert, Sandra S., Creative Humor at Work

Questioning

- **Why is it called a “pair of pants?”**
- **What are five things you value most in life?**
- **What is the one thing you think of that always makes you smile?**
- **What makes something beautiful?**
- **How do you want to be remembered?**

Write Your Own Caption!

**Political
Cartoon**



Pictures are Worth a 1000 Words

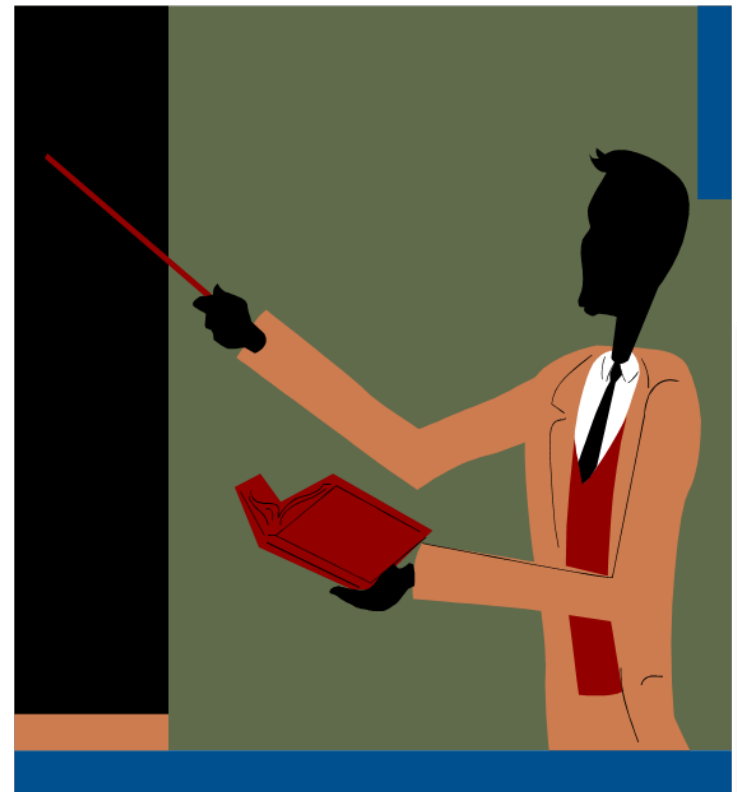


Communication



Learning & Innovation Skills

- Facilitators of learning
- Rather than Disseminators of knowledge
- What does it mean to be a Facilitator?
- What is the difference between a Facilitator & a Disseminator?



Characteristics

- **Critical Thinking, Creativity, Communication & Collaboration...**
 - **Productive, positive activity**
 - **Process not outcome**
 - **Varies depending on context in which it occurs**
 - **Triggered by positive & negative events**
 - **Sensitive as well as rational**

Stephen Brookfield, *Developing Critical Thinkers*

Components

- Identify & challenge assumptions - central
- Challenge importance of context - crucial
- Imagine & explore alternatives
- Apply reflective skepticism



Stephen Brookfield, *Developing Critical Thinkers*

Fostering Learning & Innovation Skills

- **Exploration & Critical Thought**
 - Investigate new/different views
- *Use a multi-sensory approach*
- *Respect learner style & preferences*



Ideas

- **Free Dialogue followed by**
 - Journal Writing
 - Drawing & Artistic Creations
 - Writing
 - Dramatization



Ideas



- **Think-aloud about a situation/event**
 - Discussion – *What Should I Do?*
 - *What would You Do?*
- **Discussion as a Teaching Strategy**
 - What do you know/think?
 - How do you feel?
 - What did you learn?

Ideas

- **Read a Story Aloud & Facilitate Discussion**
 - Current event
 - Critic's review
 - Reading of interest
- **Case Scenarios**
- **Picture Presentation**
- **Movie or Play**



Instructors Must...

- Remove the penalty for critical & original thought
- ...*People fear looking stupid or asking something that is dumb.*
- ...*must start removing conformity and the fear of dumbness from the classroom.*

Carol Travis – co-author of Psychology



Reminder...

“To be playful & serious at the same time is possible, & it defines the ideal mental condition.”

John Dewey, How We Think



For More Information or Training

Nancie Payne, M.S.
Payne & Associates, Inc.
205 Lilly Road NE
Bldg. B, Ste A
Olympia, WA 98506

360-491-7600 Office
360-491-0196 Fax
www.payneandassociates.com



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