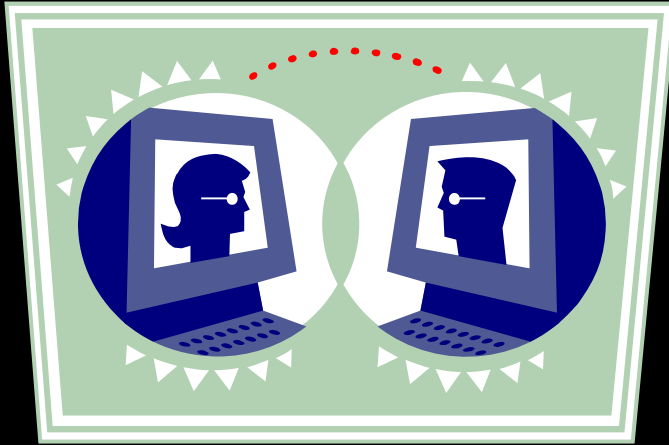


Collaborative E-Learning & Critical Thinking



Janet Salmons, PhD





What is *critical thinking*?

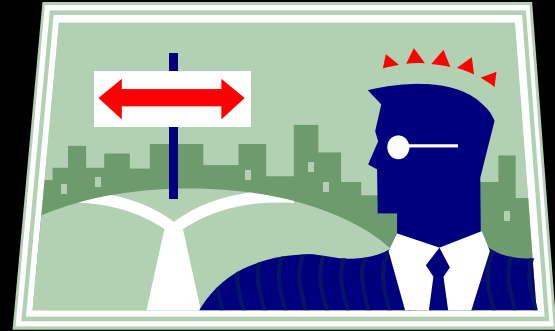
*Learning without thought
is labor lost.*

*He who learns but does not think,
is lost!*

*He who thinks but does not learn
is in great danger.*

- Confucius

Today's Agenda

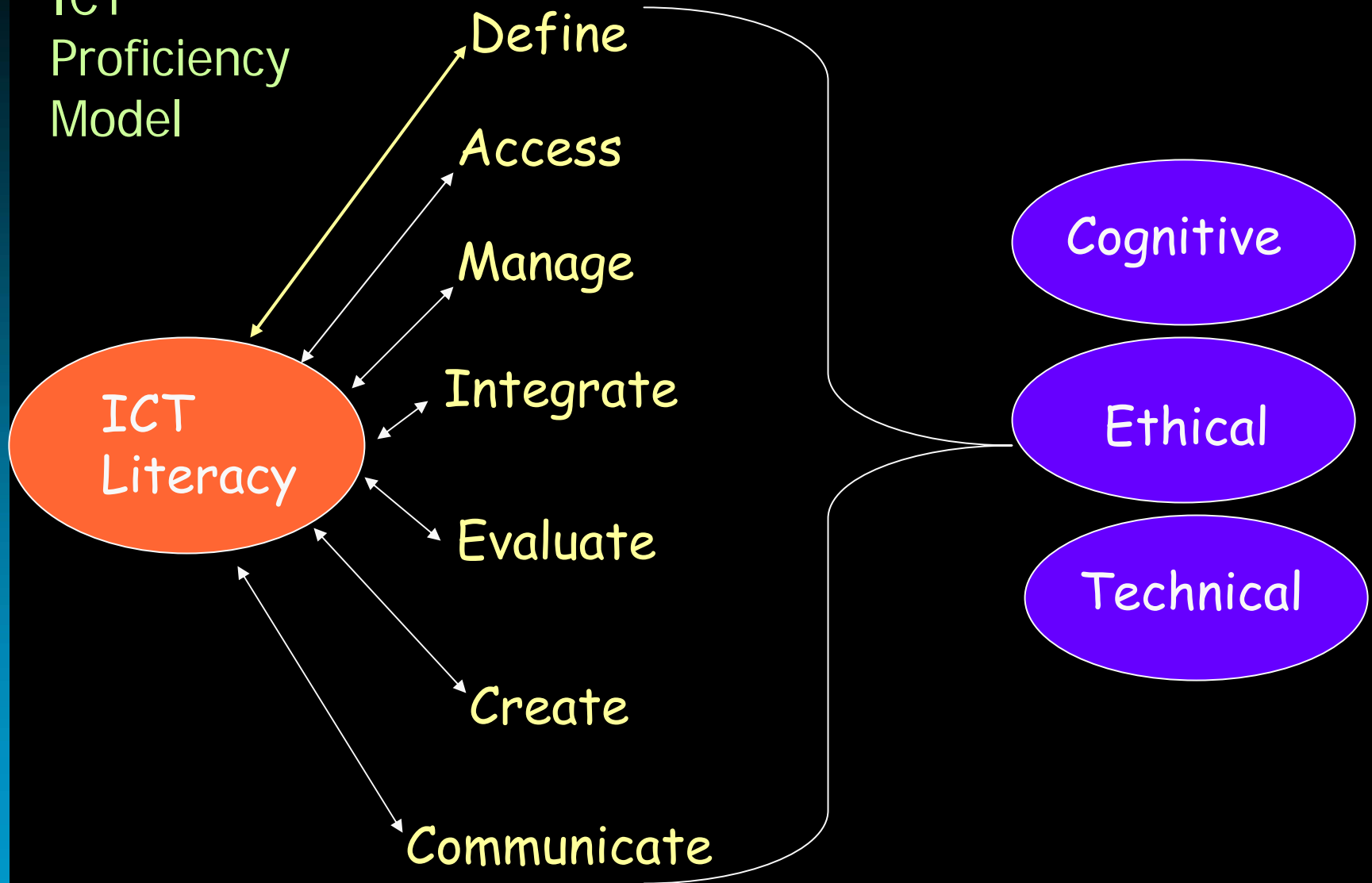


- Review, compare models that illustrate a variety of perspectives about thinking, learning and technology.
- Think together about ways to apply these ideas.
- Develop our own working definition for 21c critical thinking.

Quick questions....

K-12	College- University	Adult- Professional	Or?

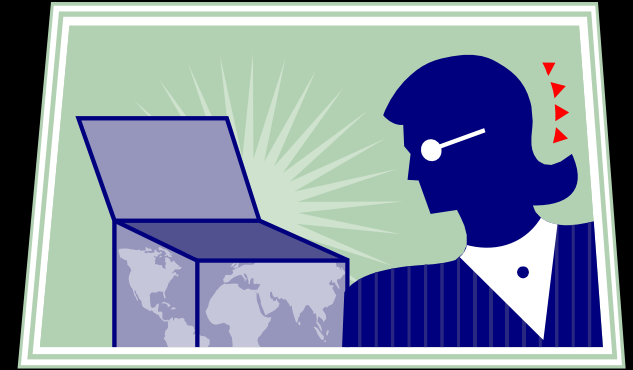
ICT
Proficiency
Model



(ETS, 2003)

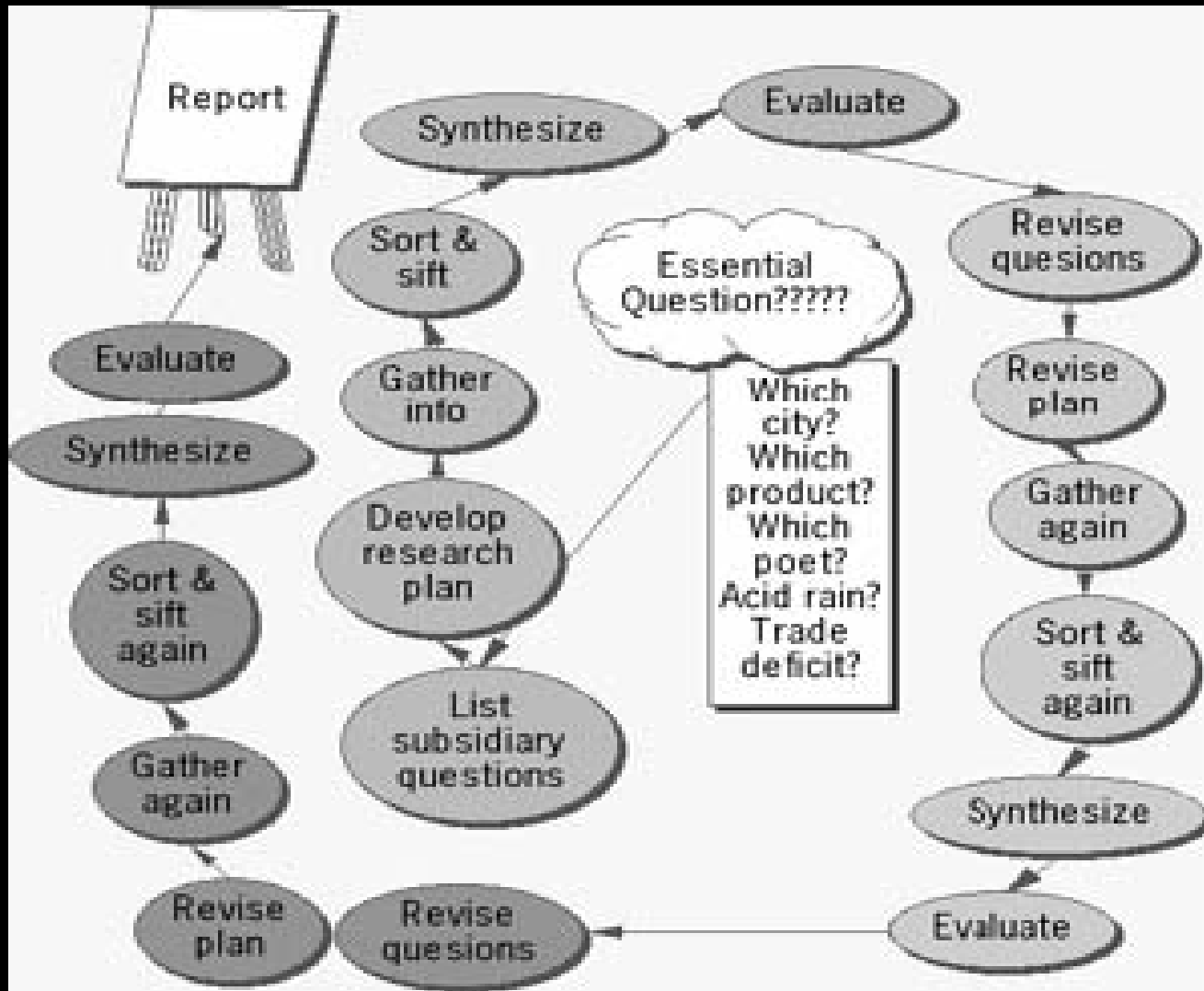
	Bloom's Taxonomy-Cognitive
Competence	The Learner Can:
Knowledge	Recall information; bring to mind the appropriate material
Comprehension	Understand information; able to grasp the meaning of material presented
Application	Use abstractions in particular and concrete situations; solve problems
Analysis	Break down a communication into its constituent parts or elements; recognize patterns and organizational structure
Synthesis	Assemble elements to form a whole; generalize from facts; create new ideas
Evaluation	Make a judgment about the value of

Updated Knowledge

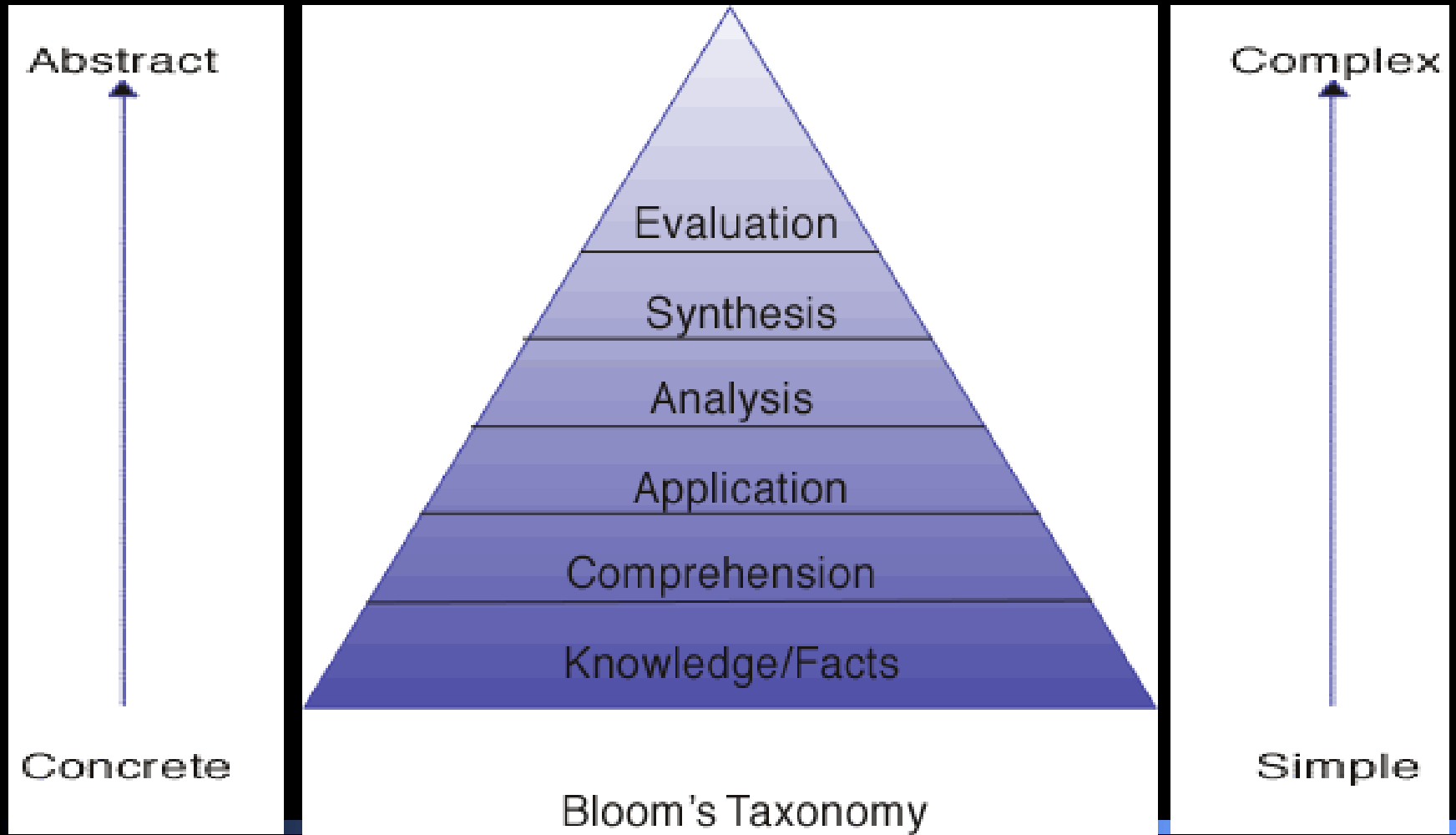


- Factual knowledge
- Conceptual knowledge
- Procedural knowledge
- Metacognitive knowledge

Bloom and the Research Cycle



Bloom's Taxonomy



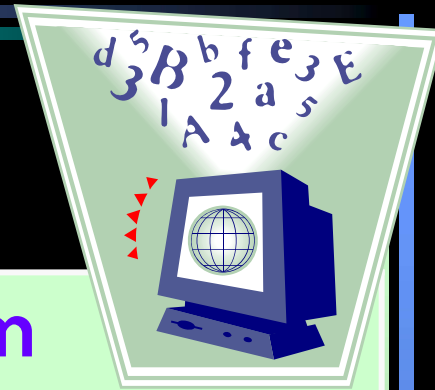
Bloom's Taxonomy: Process



Bloom's Taxonomy: New Knowledge



ICT and Bloom's Taxonomies



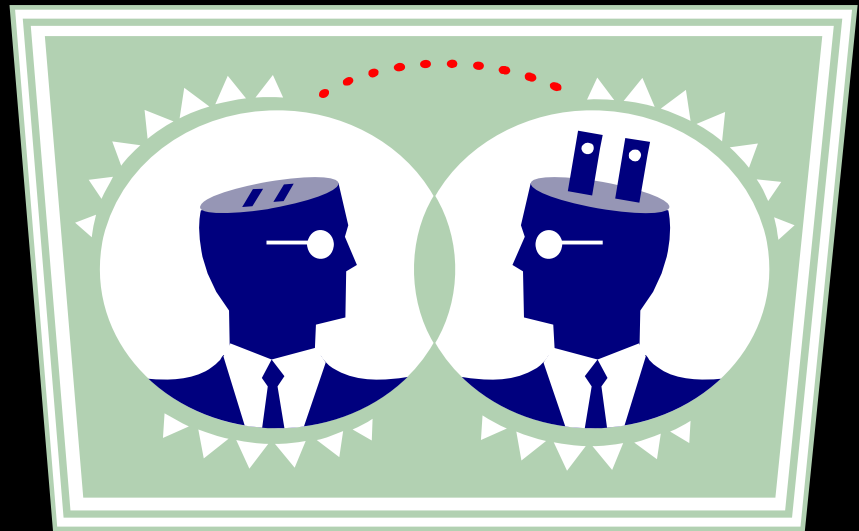
ICT	Bloom
Define	Knowledge
Access	Knowledge
Manage	Comprehension
Integrate	Synthesis
Evaluate	Evaluation
Create	Synthesis
Communicate	Application

Are collaborative, group or team skills needed?

ICT Process	Work individually or together?
Define	Individual
Access	Individual
Manage	Both
Integrate	Both
Evaluate	Both
Create	Both
Communicate	Both

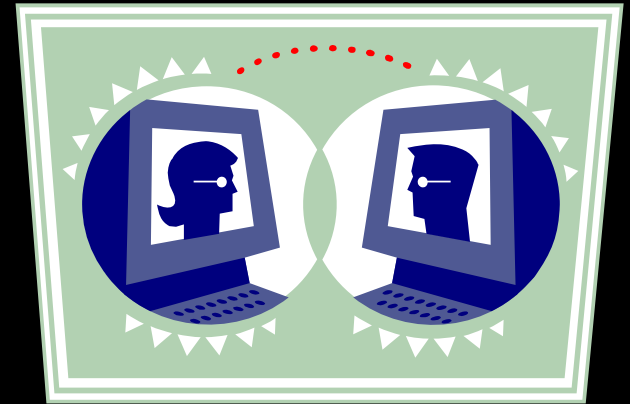
21c Critical Thinking....

It's not a solo
activity!



What is "Collaborative E-Learning"?

- *A working definition:*



Collaborative e-learning means mutual engagement of two or more learners in a coordinated effort to construct knowledge, negotiate meanings and/or solve problems using Internet and electronic communications.

Translate into learning activities?



Team (2-3)	Group (3-6)	Class

21c Critical Thinking.... Our Definition?



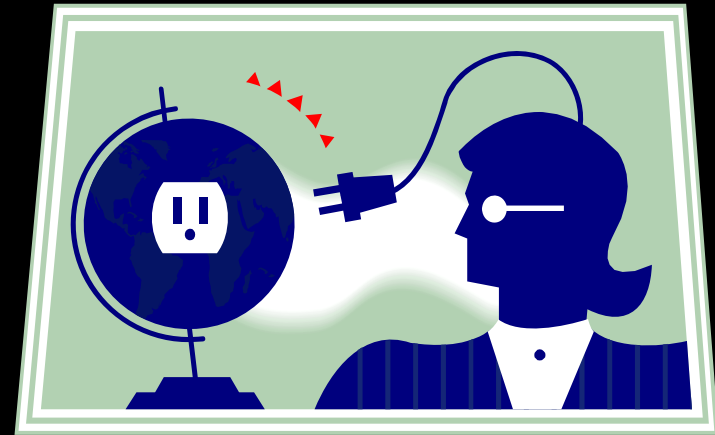
What will you do differently?

New ideas?

New projects?

New approaches?

New partnerships?



Next steps?



Are you interested in
continuing the dialogue?

- *Add to the discussion on ICT Literacy.*
- *Attend the next webcast on May 17.*
- *Visit my blog at <http://elearn2lead.blogspot.com/> for resources and news of other discussions or presentations on these topics.*

References

- Anderson, L. W., Bloom, B. S., Krathwohl, D. R., & Airasian, P. W. (2000). *Taxonomy for learning, teaching and assessing: a revision of Bloom's Taxonomy of Educational Objectives*. New York: Allyn & Bacon, Inc.
- Bloom, B., Engelhart, M., Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: Book 1, Cognitive domain*. New York: David McKay and Company.
- ETS. (2003). *Succeeding in the 21c: What higher education must do to address the gap in information and communications technology*. Retrieved September 10, 2004, from <http://www.ets.org/ictliteracy/ICTwhitepaperfinal.pdf>
- McKenzie, J. (1999). The Research cycle 2000. *From Now On: The Educational Technology Journal*, 9(4).
- Scott, J. (2002). *Using technology wisely*. Retrieved July 7, 2004, from <http://www.wmich.edu/imi/teaching/blooms-pyramid.html>