



EIT Summer Student Program Session on Evaluation

Jodi McIlroy, BHSc(PT), PhD
July 6 2006



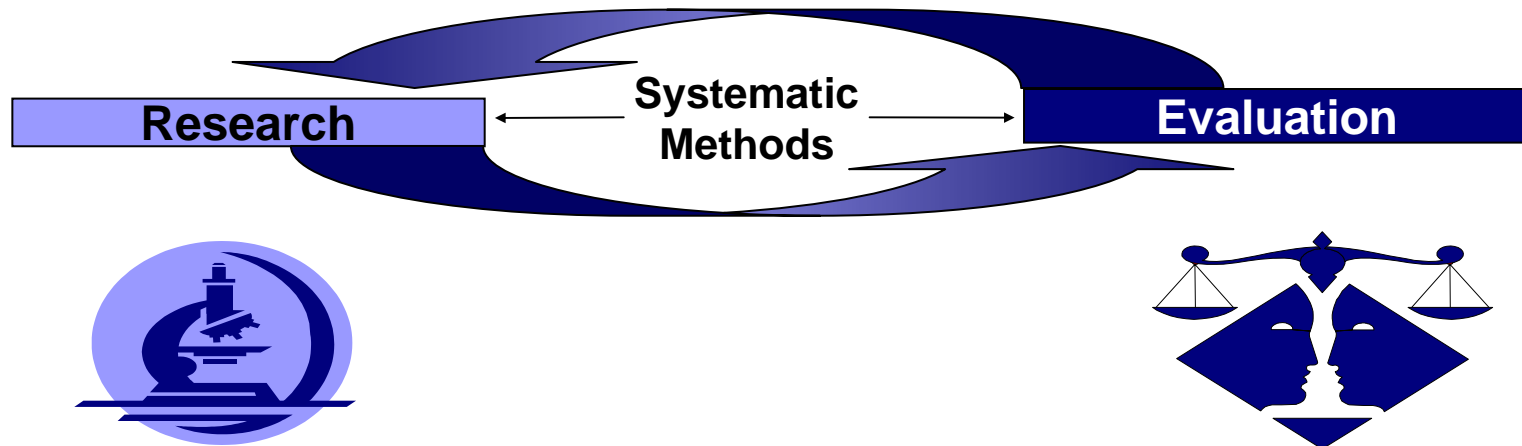
Instructional Systems Design

- ADDIE model
 - Analysis
 - Design
 - Development
 - Implementation
 - Evaluation

http://www.e_learningguru.com/articles/art2_1.htm

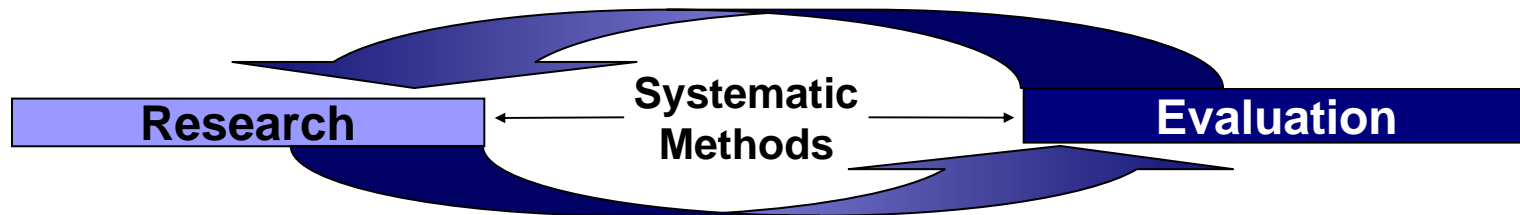
Last accessed July 6 2006

Research vs. Evaluation

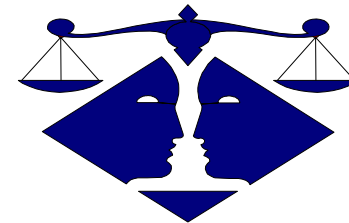


- Evaluation is designed to *improve* something while research is designed to *prove* something
- BOTH:
 - Pose significant questions that can be investigated empirically
 - Use methods that permit direct investigation of the question
 - Provide a coherent and explicit chain of reasoning

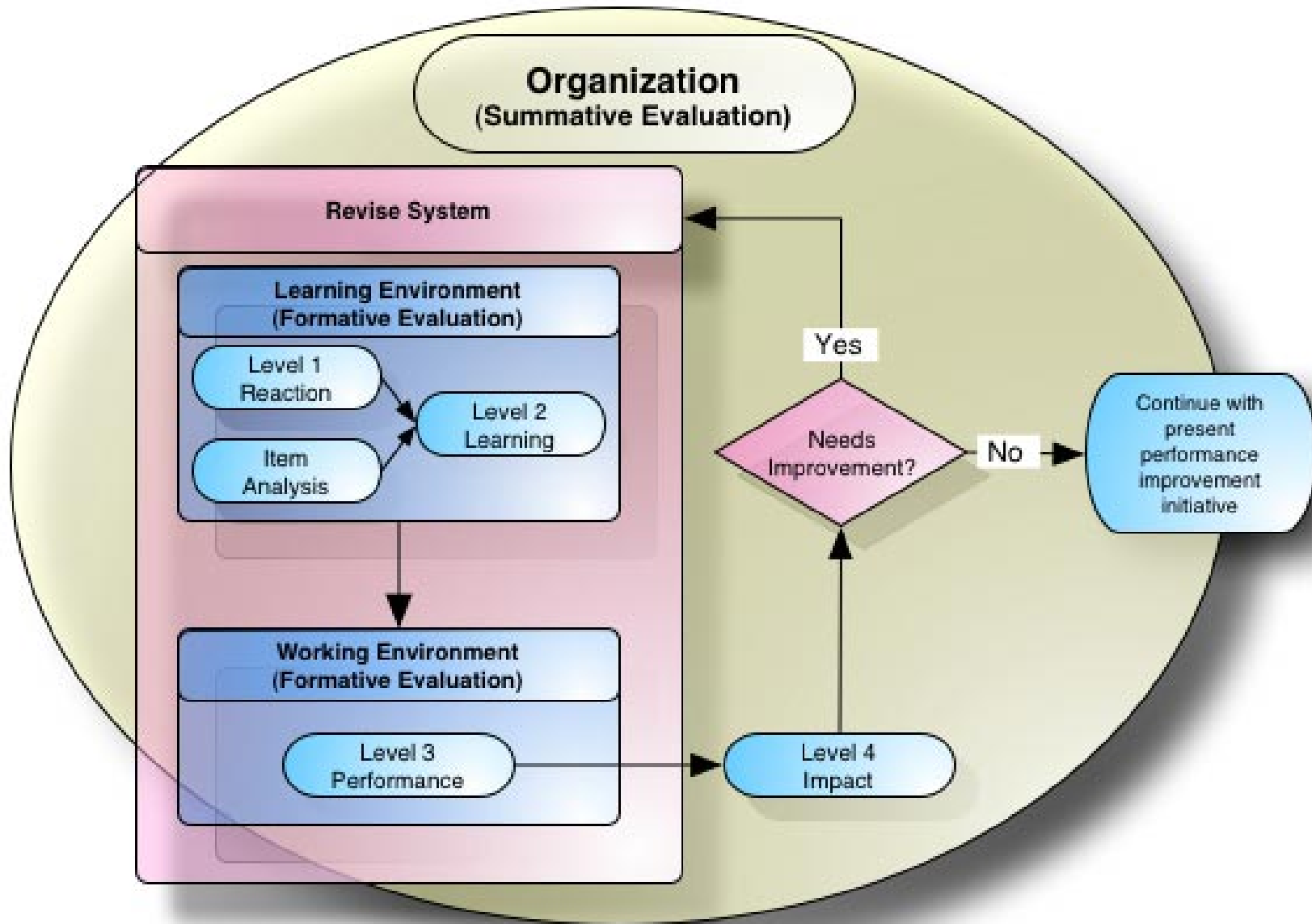
Research vs. Evaluation



- Production of generalizable knowledge
- Researcher-derived questions
- Paradigm stance
- More controlled setting
- Clearer role
- Published
- Clearer allegiance



- Knowledge intended for use
- Program- or funder-derived questions
- Judgmental quality
- Action setting
- Role conflicts
- Often not published
- Multiple allegiances



Kirkpatrick, 1975



Level 1: Reaction

- Learners' reactions to the program
 - a.k.a “happiness index”
 - The relevance of the objectives/content
 - Ability of the course to maintain interest
 - Amount and appropriateness of interactive exercises
 - Ease of navigation
 - *Perceived* value and transferability to the workplace




Level 2: Learning

- What knowledge was acquired?
- What skills were developed or enhanced?
- What attitudes were changed?
 - Self-evaluation
 - Standardized Assessments
 - Written
 - Practical



Level 3: Performance

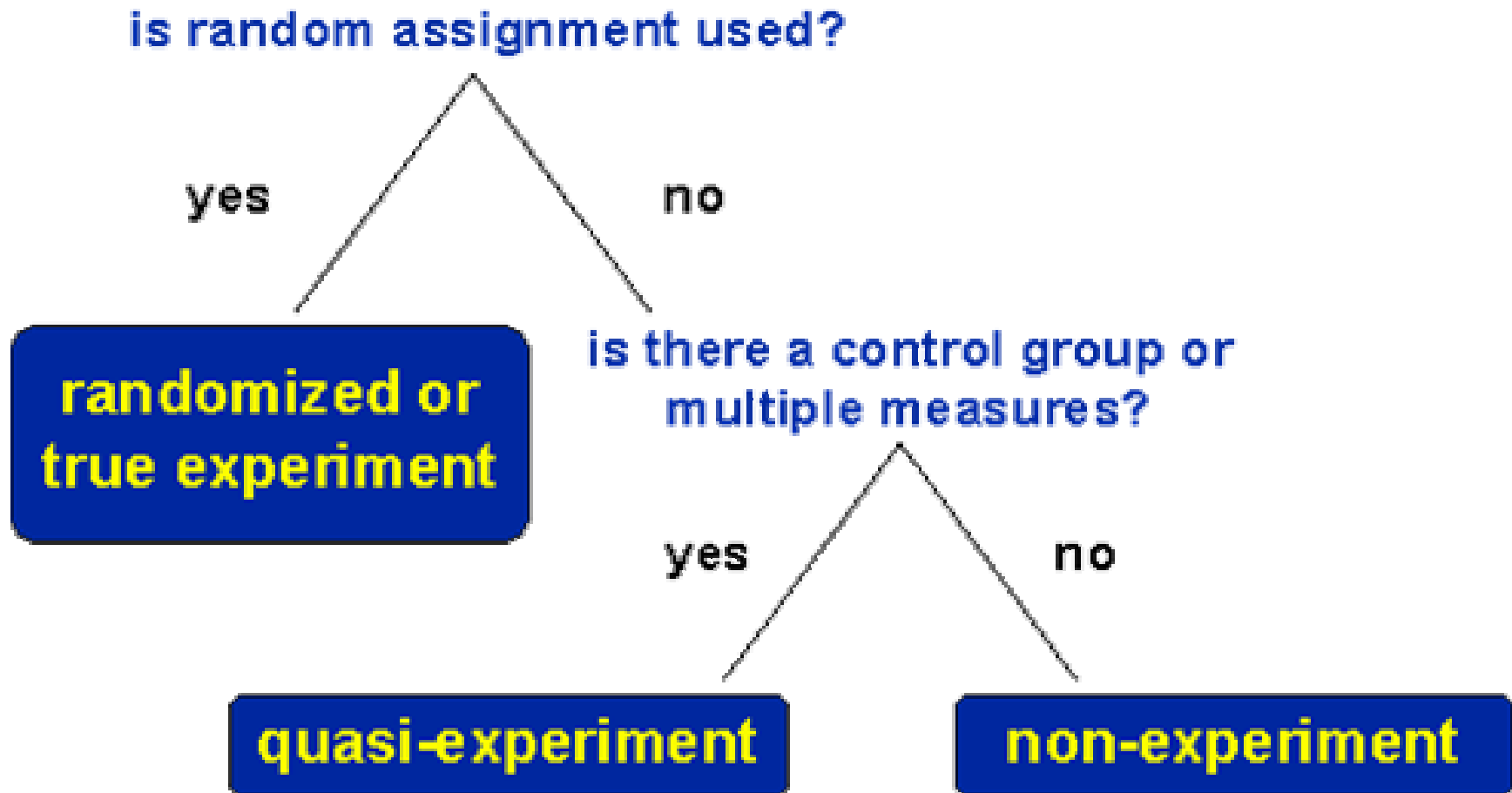
- Do people use their newly acquired learning on the job?
 - primary purpose of training is to improve results by having the students learn new skills and knowledge and then *actually apply them to the job.*
- On-the-job evaluations
 - behavioural scorecards / observation surveys
 - sample work products



Level 4: Impact

- "What impact has the training achieved?"
- These impacts can include such items as efficiency, moral, teamwork, etc.
 - **Quality training.** Measure a reduction in number of defects.
 - **Safety training.** Measure reduction in number or severity of accidents.
- Your Program: Measure?

Research / Evaluation Designs



Research / Evaluation Designs

Posttest Only Randomized Experiment	R X O R O
Pretest-Posttest Nonequivalent Groups Quasi-Experiment	N O X O N O O
Posttest Only Non-Experiment	X O



Designs for Levels 2,3,4

- Treatment-Control, Pre- and Post-Intervention Measures
- Treatment-Control, Post-Intervention Only
- Categorical or Continuous Independent Variable, Post-Intervention Only
 - Random allocation or natural cohorts



Designs for Levels 2,3,4

- Single Group, Pre- and Post-Intervention Measures