

Experiential Learning Workshop: Level III (Advanced Training)
Developing and Adapting Curricula to Integrate Experiential Learning

Workshop Goals:

- 1) To introduce/reinforce participants' understanding of the Experiential Learning (EL) cycle and Inquiry.
- 2) To apply the concepts of Experiential Learning and Inquiry to existing programs and activities.

Group Size:

Six to thirty

Time Required:

2 – 2.5 hours

Materials:

1) **General Supplies:**

- a) **Inquiry Flying Machine Model Directions**
- b) **Hands on Helicopter Model Directions**
- c) **Demonstration Helicopter Model Directions**
- d) **Helicopter Model**
- e) Scissors
- f) Paper Clips
- g) Copy Paper
- h) Flip charts or newsprint
- i) Markers
- j) Easel
- k) Masking Tape
- l) Name Tags
- m) Sign-in Sheet
- n) Pens
- o) Pencils
- p) LCD Projector (optional)
- q) Lap Top (optional)
- r) **Power Point** (optional)
- s) Curriculum Samples
- t) **Check-Off List** (four per person)
- u) **Backward Design Model** (Wiggins and McTighe, 1998)
- v) **Backward Design Model Worksheet**
- w) **Post Survey**

2) **Developing and Adapting Curricula to Integrate Experiential Learning Handout**

- a) **Cover**
- b) **5-Step Learning Cycle Diagram**
- c) **5-Step Learning Cycle Definitions**
- d) **3-Step Learning Cycle Diagram**
- e) **3/5-Step Learning Cycle Diagram**
- f) **Marek and Cavallo (1997) Learning Cycle Diagram**
- g) **Resource List**

Physical Setting:

Large room with small tables for groups of 4-5 and movable chairs.

1) Process: 10 minutes (Power Point Slide #1)

- a) Welcome the participants and introduce the presenters.
- b) Introduce the goals of the workshop. (Power Point Slide #2)
 - i) To introduce/reinforce participants' understanding of the Experiential Learning (EL) cycle and Inquiry.
 - ii) To apply the concepts of Experiential Learning and Inquiry to existing programs and activities.
- c) Explain presenter's role. (Power Point Slide #3)
 - i) To provide an opportunity for you to share, think, and get involved in the learning process.
 - ii) We feel responsible for 20% of the learning that takes place in this workshop. That leaves 80% of the responsibility in your hands.

2) Experience: 30 minutes (Power Point Slide #4)

- a) Deliver:
 - i) The activity of building and flying a paper flying machine using the Experiential Learning and Inquiry method.
 - ii) After participants have completed this method, use the Check-Off list to critique the modeled activity.
- b) Deliver:
 - i) The activity of building and flying a helicopter using the facilitator led, hands-on with no inquiry method.
 - ii) After participants have completed this method, use the Check-Off list to critique the modeled activity.
- c) Deliver:
 - i) The activity of building and flying a helicopter using the facilitator led, demonstration method.
 - ii) After participants have completed this method, use the Check-Off list to critique the modeled activity.

3) Share: 10 Minutes (Power Point Slide #5)

- a) Reflect on this experience.
- b) Using their completed Check-Off lists, have the participants record their thoughts and compare the three delivery modes, explaining the reasoning behind their critiques. This may be done individually or in small groups.
 - i) What are the characteristics of each model?
 - ii) What are the benefits and drawbacks of each?
 - iii) Which experience would benefit youth in your program the most? Why?
 - (1) **(Note:** Encourage the participants to use the check off list as a self-evaluation tool for their own activities.)

- 4) Process: 20 minutes** (Power Point Slide #6)
- a) Ask participants open-ended questions to find out where they are relative to their overall understanding of the Experiential Learning Cycle, and how, if at all, they've used the information from Experiential Learning trainings I and II.
 - i) How many people have been to trainings I and II? When? Where?
 - ii) How have you applied what you've learned in those trainings?
 - iii) Have the participants express their understanding of the key components of Experiential Learning. See what questions come up; use this information as formative feedback before continuing.
 - iv) Read Ponzio/Stanley Quote. (Power Point Slice #6)

 - b) Distribute Developing and Adapting Curricula to Integrate Experiential Learning Handout
 - i) Refer to the 5-step Experiential Learning Cycle and ask participants to explain each step. (Power Point Slide #7)
 - ii) Review other Learning Cycle Models;
 - (1) 3-step (Power Point Slide #8)
 - (2) 3/5-step (Power Point #9)
 - (3) Mareck and Cavallo Model Power Point Slide #10)
 - iii) Compare and contrast; share similarities and differences in the various Experiential Learning Models.
 - iv) Have participants used these? Do they have a preference? Discuss.

 - c) Ask participants open-ended questions to find out where they are relative to their overall understanding of Inquiry.
 - i) Have people explain what inquiry-based learning is and how they use it in their programs.
 - ii) Have the participants express their understanding of the key components of Inquiry. See what questions come up; use this information as formative feedback before continuing.
 - iii) Read Mareck and Cavaollo Quote on Inquiry (Power Point Slide #11)

 - d) Inquiry Review:
 - i) Inquiry includes: (Power Point Slide #12)
 - (1) Active investigation;
 - (2) Open-ended questioning;
 - (3) Observing and manipulating (mentally or physically) objects, phenomena, and/or nature; and
 - (4) The acquisition/discovery of new knowledge.

 - ii) Inquiry and Science (Power Point Slide #13)
 - (1) Inquiry is what scientists **do**.
 - (2) By experiencing science through inquiry, children learn how to **be** scientists. Students learn more than just concepts and facts about science, they learn the processes of discovering and establishing concepts and facts.

 - iii) Inquiry and Children (Power Point Slide #14)
 - (1) Take responsibility for their own learning.
 - (2) Improve their written and oral communication skills.
 - (3) Develop problem-solving, decision-making, and research skills critical for lifelong learning.

(4) Learn how to continue learning. (**Note:** This is the most important aspect of the inquiry approach.

iv) Inquiry and Educators (Power Point Slide #15)

(1) The inquiry approach:

- (a) Allows for cross-curricular applications.
- (b) Places a teacher in the role of being a facilitator of learning, rather than a disseminator of known information.
- (c) Allows teachers to learn more of who their students are, what they know, interests they have, and how their minds work.

5) Generalize: 10 minutes

- a) Introduce Curriculum Adaptation/Design (Power Point Slides #16 - #18).
- b) Use Backward Design Methods tied directly to the Learning Cycle.
- c) Emphasize making learning visible, having the audience figure out how to provide evidence of learning when doing 4-H projects or activities.
- d) Help them see that reflection time is critical for evidence of learning. It helps one see where the learners are with respect to the concepts in a project or activity.

6) Apply: 30 minutes

- a) Provide participants with the Backward Design worksheet.
- b) Power Point Slides #19 - #22
- c) Adaptation of existing curricula and project materials.
- d) Work in pairs or groups of three.
- e) **Important:** Be aware that participants are moving from curriculum users to curriculum designers.
- f) A way of helping participants understand their new role as curriculum designers, is to use a "House" Analogy: Participants are looking at a "house" for sale (purchasing a new curriculum), or they want to "remodel" their own house (adapt an existing curriculum). What they see or have may not be exactly what they want, but it has potential. How can they see this "house" as what they want it to be as opposed to what it is currently?
Remodeling analogy: Looking at what needs to be done to redesign it and make it work.
- g) Have the participants use the Check-Off List, the Backward Design worksheet, and the Learning Cycle handouts as tools to redesign the materials. (**Note:** Encourage them to use materials they bring from their own programs.) (Power Point Slide #23)

7) Sharing and Peer Reflection: 10 minutes

- a) Have participants share their curriculum adaptations with the entire group. Ask them to address the questions posed in Power Point Slide #23.
- b) Share about the process of working together in small groups to redesign an activity. What worked and what didn't?

8) Evaluation: 10 minutes (Power Point Slide #24)

- a) Distribute one copy of the post-training survey to each individual. Provide approximately 10-15 minutes for the participants to complete the survey.
- b) Once the surveys have been completed and collected, distribute any remaining handouts and ask for any final remarks.
- c) Optional individual reflection/commentary – How, if at all, have the participants' philosophies shifted? What sort of knowledge construction has occurred? What (realizations) instructional possibilities opened up for you as a result of taking this workshop?

9) Ending Quotes: (Power Point Slide #25)

- a) *Knowledge isn't more information, it's design.* – David Perkins
- b) *The level above expert is learner.* – Richard Ponzio.

10) Variations:

- a) The activity could be changed to reflect the topic or group.
- b) The amount of time for each step may vary depending on the size and interest of the group.

11) Prepared By: (Power Point Slide #26)

Members of the *University of California Cooperative Extension Science, Technology and Environmental Literacy Workgroup*: Steve Dasher, UCCE San Diego County; Richard P. Enfield, UCCE San Luis Obispo County; A. Michael Marzolla, UCCE Santa Barbara County; Richard C. Ponzio, PhD, Department of Human and Community Development, UC-Davis; Lynn Schmitt-McQuitty, UCCE Santa Cruz and Monterey Counties; Martin H. Smith, Veterinary Medicine Extension, UC-Davis.