Experiential Learning Workshop: Level II (Intermediate Level Outline)
Inquiry-Based Learning and the Experiential Learning Cycle

Goals
1) To help participants distinguish between a hands-on educational experience that does not involve inquiry, and a hands-on educational experience that is inquiry-based.
2) To introduce/reinforce participants' understanding of the Experiential Learning cycle.

Group Size
Six to thirty

Time Required
1.5 To 2 hours

Materials
1) **Materials to modify Shoes:** (Make two-sets of materials, one for **Green** Group and one for **Blue** Group)
   a) 8 shoes with laces
   b) 8 plastic shopping bags
   c) 8 pair of scissors
   d) 2 rolls of duct tape or masking tape
   e) 8 cloth rags or pieces of felt
   f) 1 newspaper
   g) 40 small nuts and bolts
   h) 8 piece of string, twine, or rope (5-6 feet long)
   i) 16 pieces of cardboard (approximately 12 inches square
   j) **Hike to Lonely Lodge Green Group Scenario Sheets**
   k) **Hike to Lonely Lodge Blue Group Scenario Sheets**

2) **Recognizing Inquiry and the Learning Cycle Packet:**
   a) **Cover Sheet**
   b) **5-Step Cycle Diagram**
   c) **5-Step Cycle Definitions**
   d) **Marek & Cavallo Diagram**
   e) **Quotes**
   f) **Article: An Inquiry Primer, Alan Colburn, Science Scope – March 2000**
   g) **Essence of Inquiry**
   h) **Resources**

3) **General Supplies:**
   a) 2 Flip charts or newsprint
   b) Markers
   c) 2 Easels
   d) Copy Paper
   e) Sign-in Sheet
   f) Pens
   g) Pencils
   h) Masking Tape
   i) Name Tags
   j) **Check-Off** List (two per person)
   k) **Post Survey**

l) Camera (optional)
m) **Power Point** (optional)
n) Lap Top (optional)
o) LCD Projector (optional)

Physical Setting

Two rooms with 4 small tables for groups of 4-5 and movable chairs.

1) Process: 20 minutes (Power Point Slide #1)

a) Welcome the participants and introduce the presenters.

b) Introduce quote from Malcolm Knowles, educator: (Power Point Slide #2)

"We will learn no matter what! Learning is as natural as rest or play. With or without books, inspiring trainers or classrooms we will manage to learn. Educators can, however, make a difference in what people learn and how well they learn it. If we know why we are learning and if the reason fits our needs as we perceive them, we will learn quickly and deeply."

c) Introduce the goals of the workshop. (Power Point Slide #3)
   i) To help participants distinguish between a hands-on educational experience that does not involve inquiry, and a hands-on educational experience that is inquiry-based.
   ii) To introduce/reinforce participants' understanding of the Experiential Learning cycle.

d) Explain presenter's role. (Power Point Slide #4)
   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.

e) Workshop "Pre-Flections" (Power Point Slide #5)
   Ask questions without providing direct answers. (*Have participants record answers on share-sheets, then verbally share)*
   i) Explain what you know about inquiry-based learning.
   ii) Explain any similarities and/or differences between inquiry-based learning and hands-on learning.
   iii) Describe inquiry-based learning or training sessions you have been a part of or participated in.

2) Experience "The Hike to Lonely Lodge": 25 minutes (Power Point Slide #6)

Subdivide the large group into Groups: **Green** and **Blue**.

a) **Green** Group: Hands-on Facilitator-led Activity:
   i) Subdivide the **Green** Group into two or four smaller working groups.
   ii) If you have four working groups, provide each group with one shoe, one set of The Lonely Lodge Hike instructions on shoe modifications, and the Check-Off list; if you have only two working groups, provide each with two shoes, two sets of The Lonely Lodge Hike instructions on shoe modifications, and the Check-Off list.
   iii) Tell the groups that their task is to work together in their groups and modify their shoe(s) to meet the conditions described. Please use the materials as described. The facilitator will move between groups and ensure that participants are following instructions.
   iv) Once the activity is complete, have participants complete the Check-Off list.

b) **Blue** Group: Hands-on Inquiry Activity:
   i) Subdivide the **Blue** Group into two or four smaller working groups.
   ii) If you have four working groups, provide each group with one shoe, one set of The Lonely Lodge Hike instructions on shoe modifications, and the Check-Off list; if you have only two working groups, provide each with two shoes, two sets of The Lonely Lodge Hike instructions on shoe modifications, and the Check-Off list.
   iii) Tell the groups that their task is to work together in their groups and modify their shoe(s) to meet the conditions described. Please use the materials supplied. "Ready, go!"
   iv) Once the activity is complete, have participants complete the Check-Off list.

3) Share: 15 Minutes

a) Ask members from the **Green** and **Blue** groups to discuss what they were thinking or feeling immediately after being given their task. Record the reactions and adjectives that describe the feelings generated.

b) Ask members of working group Green A to describe what they did to modify their shoe; then ask members of working group **Blue A** to describe what they did to modify their shoe. Repeat this process for groups **Green B** and **Blue B, Green C** and **Blue C**, and finally **Green D** and **Blue D**.

c) Using the share sheets and the Check-Off lists, have members from the **Green Group** and the **Blue Group** identify two design similarities and two design differences that existed in both groups.

d) List on a flip chart the differences and similarities as they are presented.

4) Process: 5 minutes

a) Using the data collected in the sharing step, lead the large group through a process of identifying:
   i) Problems or issues that occurred.
   ii) Identification of similar experiences you've had.
   iii) Discuss how each lesson incorporated/didn't incorporate the components outlined in the Check-Off list.

b) Mark the commonly shared experiences or record again on a separate flip chart.

c) What are some other ways we can process the activity?

5) Generalize: 5 minutes

a) Discuss with the entire group how the design similarities and differences of the experience they just completed reflect what happens in their own learning experiences.
b) After listening to the two groups share, process and generalize the experience. Does it sound like each group had the same experience? (both were experiential, one also had inquiry)

c) Guide participants to the definition of Inquiry.

6) Introducing Inquiry: 10 minutes

a) **What is Inquiry?** (Power Point Slide #7)

i) "Inquiry is a process that all individuals naturally use in approaching new situations and solving problems in life. By engaging in inquiry, …children…gain experience…that will improve their capacity to handle life situations and solve everyday problems." - Edmund Marek and Ann Cavallo (1997)

b) **Inquiry includes**: (Power Point Slide #8)

i) Active investigation;
ii) Open-ended questioning;
iii) Observing and manipulating (mentally or physically) objects, phenomena, and/or nature; and
iv) The acquisition/discovery of new knowledge.

c) **Inquiry and Science** (Power Point Slide #9)

i) Inquiry is what scientists ***do***.
ii) By experiencing science through inquiry, children learn how to ***be*** scientists. Students learn more than just concepts and facts <u>about</u> science, they learn the <u>processes</u> of discovering and establishing concepts and facts.

d) **Inquiry and Children** (Power Point Slide #10)

i) Take responsibility for their own learning.
ii) Improve their written and oral communication skills.
iii) Develop problem-solving, decision-making, and research skills critical for lifelong learning.
iv) Learn how to continue learning. (**Note:** This is the <u>most important aspect</u> of the inquiry approach.

e) **Inquiry and Educators** (Power Point Slide #11)

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

7) Apply: 15 minutes (Power Point Slide #12)

a) With the information generated from the sharing, reflecting and generalizing steps, ask the individual groups to revisit and discuss the concept of inquiry as it follows the learning cycle. Ask them to identify a project or activity they lead and discuss ways they might apply inquiry or make it an inquiry based activity.

b) Have the group identify ways in which the addition of inquiry changed the learning experience.

8) Evaluation: 10 minutes

a) Hand out "Inquiry-Based Learning and the Experiential Learning Cycle" Packet. Define, compare and contrast the various learning cycles:

i) <u>5-Step Experiential Learning Cycle.</u> (Power Point Slides #14 - #19)
ii) <u>3-Step Marek and Cavallo Model.</u> (Power Point Slide #20)

b) Distribute one copy of the post-training survey to each individual. Provide approximately 10-15 minutes for the participants to complete the survey. (Power Point Slide #21)

c) Once the surveys have been completed and collected, distribute any remaining handouts and ask for any final remarks.

d) End with the Essence of Inquiry quote by Edmund Marek and Ann Cavallo (1997): (Power Point Slide #22)
"Science is, by its nature, inquiry-based. Inquiry is a method that utilizes the rational powers and scientific thinking processes to explore and learn about some aspect of the real world. In order to achieve this, facilitators must create a learning environment steeped with experiences that allow students to use their rational powers in a coordinated way. Such experiences will, consequently, develop children's logical thinking abilities."

The critical element to inquiry is that the child <u>seeks</u> answers to questions and is not <u>given</u> answers. True learning comes from the search for the answer and not the answer – this is the essence of inquiry.

9) Variations: (Power Point Slide #22)
a) The activity could be changed to reflect the topic or group.
b) The time for each step may vary depending on the size and interest of the group.

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