

LTRP: Library Research II

Day 29

OVERVIEW

The purpose of the second library visit is to find answers to the question: How can we explain our experimental results? For example, a group may find more mushrooms in the forest than an open field. In their discussion paragraph (Day 30), they must try to explain why this is true. In the library they can read about fungi and mushrooms, how they grow, where they grow, necessary environmental conditions, plant associations, etc. This information provides a broader understanding of the research question and gives the results context. Because each experiment is different, each library quest will be different.

Focus Question: *What is already known about our research question that can help us explain our results?*

SCIENCE SKILLS

- ✓ Students will be able to formulate a question that directs library research to explain LTRP research results.
- ✓ Students will be able to locate information on the web, CD ROMs, and in library books that helps explain the experimental results.
- ✓ Students will be able to keep a bibliography of relevant sources.

BACKGROUND

Background information describing the concepts in this lesson is presented in the following sections:

Section 1: Research Q & H – *Information Questions versus Research Questions*

MATERIALS

- ✓ library access, web access
- ✓ student worksheet (provided)

DEVELOPMENT OF LESSON

1. Begin the lesson with a class discussion of the research results. The groups may not be aware of what other groups discovered. Have each group state the research question and summarize the results. Encourage students to ask questions of each other. This will help them clarify their own understanding of the project.
2. Continue the class discussion, asking the groups why they think they got the results they did. What do they know about the system or topic that helps explain the results? What information could they try to find that could help them explain the results?



LTRP



3. Tell the students they now have an opportunity to use the library to try to find more information. Encourage the group members to work individually or in pairs to maximize the amount of library research completed. Remind them to keep track of their sources and give them a standard bibliography form to follow. Included on the worksheet is the standard form used in ecology journals.
4. If students feel they have exhausted all possible sources in the library, encourage them to use the internet and school science text books. The librarian may be able to suggest alternative sources.

DISCUSSION QUESTIONS

1. Describe your research question and results. Why do you think you got these results?
2. What type of information could help you explain the results better?
3. How could you find this information?
4. What questions might someone else (who didn't do the research) ask you about your results?
5. How might your experimental design (methods) have influenced or affected your results?
6. What additional research questions could you ask based on your results?