

2003 Biology Institute Daily Schedule for Classroom Implementation Strategies

July 8, Evening

A Study of Models of Instruction – Part I

July 9, PM

A Study of Models of Instruction – Part II

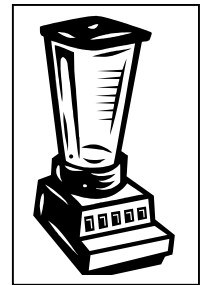


Summary – Participant comment after one week at the institute: “I’m learning a great deal of fascinating, important, and valuable high level biology content and lab skills. I am becoming concerned about just how I will implement it all back in my classroom such that it is understandable and doable for my students.” The core of our answer to that concern will be to rely heavily on the wealth of participant expertise, experiences, and skills. Since each participant comes with a unique instructional background these two sessions attempt to 1) give everyone a common instructional strategy base line, and 2) spark ideas for implementation by taking a cursory look at a number of research based and field-tested models for teaching. For example, the strategy the participants will be using in these two sessions is called “jig-saw.”

July 11, PM

“It’s All About Blenders”

Summary – In their lab work the participants will quickly learn that a PCR is an important piece of apparatus in the biology lab and therefore, a friend to a biologist. This session is designed to acquaint the participants, in a deliberately less than scientific setting, with the model they will be using for working together in designing strategies for the classroom implementation of the biology content.



July 15, Evening

Lesson Study Panel Discussion

Summary – A number of experts in the field of Lesson Study will discuss its history and philosophy, describe a typical lesson study “cycle”, dispel common misconceptions about Lesson Study, and share the experiences of a “whole school” Lesson Study model.



July 16, Evening

Presentations of “It’s All About Blenders”

Summary – This session is the application of the plan developed in the earlier blenders session plus the typical lesson study debriefing.

July 17, Evening

“Class of 36 Problem”

Summary – Participants will experience first hand a true “inquiry” lesson and process through a lesson study debriefing.

“Characteristics of a Japanese Blackboard that Promote Deep Understanding”

Summary – Participants will experience and learn about a meaningful and logical organizational scheme for presenting information in a lesson that is based on learning research but is foreign to most teachers in the U.S.

July 18, PM

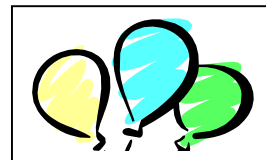
“Can You Lift a 100 Kg Weight?”

Summary – Through videotape analysis of a case study, participants will take a critical look at the three phases of a lesson study cycle. They will also become familiar with the lesson study templates used for assessing student profiles and designing lesson plans. The session ends with the participant teams brainstorming the lesson topic they will develop.

July 21, PM

Teaching Science By Inquiry – Ice Balloons and More

Summary – In this session participants will experience a science lesson designed as inquiry. They will then analyze what makes a lesson truly inquiry as compared to “challenge” and “guided” lessons. They will explore the place for true inquiry lessons in the teaching of middle school and high school science, especially in light of the drive to cover more and more content.



also

July 21, Evening

Protocols for Observing and Debriefing A Research Lesson

Summary - In the process of lesson study the hours of planning and strategizing culminate with the teaching of the research lesson. As one of the team members teaches the lesson the rest of the team observes the teaching-learning process. However, in addition to the team there are usually a number of other observers as well, all feverishly taking notes. A lesson debriefing then follows the class. This also involves the team and all of the observers. In order to maintain a “pure laboratory sample” during the teaching and to maintain a sense of order during the debriefing, a clear set of observer protocols or guidelines have been established. During this session teachers will be made aware of and discuss the value of these guidelines.

July 22, PM

Designing A Map of the Research Idea

Summary – Based on examples and a given Department Mission Statement and Actual Student Profile each team will develop its Ideal Student Profile (the characteristics they would like to see in these students at the end of 3-4 years). With this information the team develops a Research Focus based on some aspect of the biology content learned at the institute. From this point the team develops a research hypothesis. This document then becomes the “guiding light” as the team begins to develop a specific lesson plan.

July 23, PM; July 24, AM; July 25, AM; July 28, PM; July 29, PM, Evening
Designing the Research Lesson

Summary – These sessions will be used by each team to develop the details of the research lesson. This includes all teaching materials and ancillaries needed to implement the lesson. Each member of a team has an equal stake in the success of the lesson and brings to the planning table his/her own background, skill and knowledge. The product (i.e., lesson plan) represents the best efforts of everyone on the team.



July 30, 31; AM
Research Lesson

Summary – Each day two teams will have the opportunity to teach their lessons to a class of real-live middle school students! One teacher from each team will teach the team's lesson while his/her teammates observe the process. In true Lesson Study format, there will be approximately 30 other observers made up mostly of the institute teachers. The lesson will be followed by a typical debriefing session.



actually teach
One teacher
teammates
also be

July 30, 31; PM
Research Lesson Defense

Summary – Each of the remaining teams that did not have the opportunity to give their lessons will present their research lesson plan and Map of their Research Idea to the rest of the institute teachers and staff. At this session they will explain and defend their choice of teaching strategies in light of their research hypothesis and the specific content.

August 1, AM
Starting Lesson Study in Your home District

Summary – Participant comment after four weeks at the institute: “The institute is just about over and I’ve learned a great deal of biology content and some interesting ways to structure its implementation into my classroom. Now I’m returning home. How do I sustain the rush I’m having when I return to my school?” The point of this session is to offer the participants strategies and resources for setting up a TORCH and/or implementing some form of lesson study in their schools.