

# Supplemental Material

*CBE—Life Sciences Education*

*Basey et al.*

Teaching Style Checklist: Introductory Part of Lab

Teacher Observed: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Feature:

**Lab Format**

\_\_\_\_\_ **Expository:**

\_\_\_\_\_ 1) Direct Instruction on Vocab/  
procedures

\_\_\_\_\_ 2) Lab

\_\_\_\_\_ **Learning Cycle:**

\_\_\_\_\_ 1) Inductive: Students review notes/  
Create lifecycle

**Lecture Content/ Instruction**

\_\_\_\_\_ **Expository:** Direct instruction  
relating terms to lifecycle of Fern

\_\_\_\_\_ Labeled Lifecycle(s)

1\_\_3\_\_5 Direct connections between  
structures and vocabulary

1\_\_3\_\_5 Uses vocabulary to describe  
lifecycle

\_\_\_\_\_ Direct instruction on Procedures/  
product

\_\_\_\_\_ **Learning Cycle:** Students investigate  
lifecycle of "Mystery Organism"

1\_\_3\_\_5 General terms

1\_\_3\_\_5 Ways of Identifying: e.g. after  
undergoing meiosis, have haploid cells

\_\_\_\_\_ Generalized procedures/ product

Notes on Instruction:

**Number/ Type of Teacher-Student Interactions**

\_\_\_\_\_ **E:** Teacher as leader

\_\_\_\_\_ Answers questions directly

\_\_\_\_\_ Directs attention towards important  
conclusions rather than observations

\_\_\_\_\_ Responds to individual students

\_\_\_\_\_ **LC:** Teacher as facilitator/collaborator

\_\_\_\_\_ Refers students to resources  
(placemats, notes, etc.)

\_\_\_\_\_ Directs attention towards important  
observations rather than conclusions

\_\_\_\_\_ Directs students to discuss with  
peers

Notes:

Level of teacher engagement with class: \_\_\_\_\_

Expository: \_\_\_\_\_ / 3 = \_\_\_\_\_

Learning Cycle: \_\_\_\_\_ / 3 = \_\_\_\_\_

Teaching Style Checklist: Hands-On Lab

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Teacher Observed: \_\_\_\_\_

Feature:

**Format**

\_\_\_\_\_ **Expository:**

\_\_\_\_\_ 1) Lecture

\_\_\_\_\_ 2) Lab

\_\_\_\_\_ **Learning Cycle:**

\_\_\_\_\_ 1) Inductive: Students review notes/  
Create lifecycle

\_\_\_\_\_ 2) Lecture: Connections to terms

\_\_\_\_\_ 3) Practice: Students revise  
lifecycle/ answer questions

**Lecture Content/ Instruction**

\_\_\_\_\_ **Expository:** Direct instruction  
relating terms to lifecycle of Fern

\_\_\_\_\_ Labeled Lifecycle(s)

1\_\_3\_\_5 Direct connections between  
structures and vocabulary

1\_\_3\_\_5 Uses vocabulary to describe  
lifecycles (all phyla)

\_\_\_\_\_ Direct instruction on Procedures/  
product

\_\_\_\_\_ Specific Examples

\_\_\_\_\_ **Learning Cycle:** Students relate to  
lifecycle of "Mystery Organism"

1\_\_3\_\_5 Direct connections between fern  
life cycle and vocabulary

1\_\_3\_\_5 General definition of terms

1\_\_3\_\_5 Ways of Identifying: e.g. after  
undergoing meiosis, have haploid cells

\_\_\_\_\_ Generalized procedures/ product

\_\_\_\_\_ Where to find information

Notes on Instruction:

**Number/ type of Teacher-Student Interactions**

\_\_\_\_\_ **E:** Teacher as leader

\_\_\_\_\_ Answers questions directly

\_\_\_\_\_ Directs attention towards important  
conclusions rather than observations

\_\_\_\_\_ Responds to individual students

\_\_\_\_\_ **LC:** Teacher as facilitator/collaborator

\_\_\_\_\_ Refers students to resources (such  
as placemats, notes)

\_\_\_\_\_ Directs attention towards important  
observations rather than conclusions

\_\_\_\_\_ Directs students to discuss with  
peers

Notes:

Level of teacher engagement: \_\_\_\_\_

Expository: \_\_\_\_\_ / 3 = \_\_\_\_\_

Learning Cycle: \_\_\_\_\_ / 3 = \_\_\_\_\_