

# *Promoting Science among English Language Learners (P-SELL)*

University of Miami – School of Education

## **Post Observation Interview (Individual)**

A primary purpose of the post-observation interviews is to understand teachers' conceptions of science instruction with diverse student groups. A secondary purpose is to use interview responses in verifying or triangulating classroom observations and questionnaire responses. Interviews address teachers' conceptions of (a) science, (b) science instruction, (c) students' learning of science, and (d) articulation of science with students' language and culture, and (e) students' English language development.

To contextualize the interviews in relation to the lesson, both the interviewer/observer and the teacher use examples of salient events during the lesson. Prior to the interview, the interviewer should review the classroom observation notes and find specific examples for discussion.

**Opening:** The purpose of this interview is for us to reflect on today's lesson and how this lesson relates to what you think about science instruction with your students. Participation in the study is voluntary, and information you provide will be kept strictly confidential.

**Opening: How do you think the lesson went?**

### **I. Teachers' Conceptions of and Knowledge of Science**

1. What were the scientific ideas that you were trying to teach during the lesson?

**PROBE:**

What concepts were you trying to teach?

What skills or abilities were you trying to teach (e.g., basic low-level skills, process or inquiry)?

To the interviewer: Choose from among the science concepts that you saw were being developed in class and ask the teacher to discuss what you think is the most salient idea in greater depth; if you do not get much (a well articulated discussion), try another idea.

For example: I noticed that you spent a lot of time developing the relationship between centimeters and meters in today's class. Could you say more about how those are important scientific concepts?

Follow-up: How is the metric system related to other important ideas in science? Are there ideas that would come before centimeters and meters?

2. What are the most important science concepts for you to teach this year?  
What are the most important student outcomes in your science instruction?

**PROBE:**

How are those concepts related to one another?

How did today's lesson fit into your plans for the year?

**II. Teachers' Conceptions of Science Instruction (i.e., understanding and inquiry)**

3. I'd like to know about the strategies that you use to teach science

To the interviewer: Chose an important teaching strategy from the lesson and ask the teacher to explain her conceptions of how that strategy works and what makes it a good (or important) strategy to teach science. If you do not get much from the first strategy that you select, discuss a second example.

For example: I noticed that you followed up on a child's mistake by asking other children what they thought rather than by directly correcting the child's mistake. How commonly do you do something like this? Why do you think it is important to teach like this? (probe for ties to student reasoning, to pacing of the lesson, to classroom management, etc. In other words, WHY does the teacher do this?)

**III. Teachers' Conceptions of Students' Learning of Science (i.e., understanding and inquiry)**

4. How much or little do you think your students understood the science topic in today's lesson?

**PROBE:**

How can we tell whether your students understood the science topic?

What learning difficulties, if any, did you notice with your students?

5. Where do you think your students' learning of science comes from?

**PROBE**

Is it all from what you teach? Or does some of it come from home or elsewhere?

Do you think that your students will have a chance to use what they learned today in their everyday lives?

Probe here for relationships between students' learning of science in and out of school, and how (if at all) those relationships are used by the teacher as providing a starting point for instruction.

6. Was there a student who surprised you in terms of his/her prior knowledge in today's lesson or in terms of how well she/he did in catching the lesson's main points? If yes, what did the student do? Why did that surprise you?

Probe here for whether the teacher is open to ways of reasoning that reflect different pathways to the lesson's main concepts.

#### IV. Teachers' Conceptions of Relating Science to Students' Backgrounds (i.e., SES, culture, home language)

I'd like to know more about how, if at all, students' backgrounds influence their learning of science in your classroom.

7. How (if at all) might poverty influence students' learning?

**PROBE:**

How do your students' families and parents support or impede science learning?

If they respond: **SUPPORT:** What can you do to amplify the support? What should I have looked for in today's lesson that would illustrate that?

If they respond: **IMPEDE:** What can you do to overcome this impediment? What should I have looked for in today's lesson that would illustrate that?

8. Aside from the fact that many of your students come from [poor] families, do their cultural backgrounds (for example, Hispanic, Haitian, White, or African-American) support or impede their science learning?

**PROBE:**

*(if teachers don't seem to understand the question)* "For example, students from certain cultural backgrounds may not readily question the teacher because that is not how they interact with adults at home."

If they respond: **SUPPORT:** What can you do to amplify the support? What should I have looked for in today's lesson that would illustrate that?

If they respond: **IMPEDE:** What can you do to overcome this impediment? What should I have looked for in today's lesson that would illustrate that?

9. Beside social class and cultural background, are there ways that your students' home language supports or impedes their science learning?

**PROBE:**

If they respond: **SUPPORT:** What can you do to amplify the support? What should I have looked for in today's lesson that would illustrate that?

If they respond: **IMPEDE:** What can you do to overcome this impediment? What should I have looked for in today's lesson that would illustrate that?

**FURTHER PROBE:**

Do you speak/understand the home language of your ESOL students?

#### V. Teachers' Conceptions of Students' English Language Development

10. I'd like to know about the strategies that you use to promote students' English language development in today's lesson.

To the interviewer: Choose an important teaching strategy from the lesson and ask the teacher to explain her conceptions of how that strategy works and what makes it a good

(or important) teaching strategy to support students' English language development. If you do not get much from the first strategy that you select, discuss a second example.

For example: I noticed that you slowed down (or repeated what you said, or restated what a student said, or spent time having students state different words for the same thing) when you were talking to student so-and-so (or your class).

How commonly do you do something like this? Why do you think it is important to teach like this? (probe for ties to teacher support of students' English language development. In other words, WHY does the teacher do this?) Are there other important teaching strategies that you think are related to this one?

11. Do you have ESOL students in your class? I'd like to know about the strategies that you use to promote ESOL students' English language development.

Thank you very much!