Next Gen PET

Teaching and Learning Extension C

Reading: Conducting Interviews with Children

In this Teaching & Learning extension, you will be introduced to suggested methods for conducting "student thinking interviews" (in particular, children of elementary age). Most of the material and examples in this homework are from the following reference:

Russ, R.S. and Sherin, M.G., Using Interviews to Explore Student Ideas in Science, Science Scope, p. 19-23, January 2013.

Note that much of what we know about students' ideas is obtained through student interviews.

The purpose of this homework is to help you to plan an interview with at least one elementary student, preferably within the grades 2-5.

Why Conduct an Interview?

When teaching, it is important to understand the ideas that children have prior to instruction, so you could draw on and build on those ideas as you help your students develop new ideas. Experienced teachers develop this sort of knowledge over many years of teaching. However, for new teachers and experienced teachers who are teaching a new topic, conducting a student thinking interview is a useful way to identify what students think about a phenomenon without making a value judgment. It is always good to try to research the topic first to learn about what common ideas students typically have, and to use that information in formulating interview questions.

How to Conduct an Interview

Russ and Sherin suggest three strategies for interviewing: (1) contextualize the concept, (2) probe student responses, and (3) seed new ways of thinking.

(1) *Contextualize* (prior to the interview). Once you have a topic, you should put it in a context familiar to the person you are interviewing. For example, if your chosen concept is density, you might ask, "Why does ice float?" rather than "What is density?" (Russ & Sherin, 2013). Or, if you cannot think of something familiar to the person you are interviewing, have a visual aid, for

example a glass with oil and water, and ask why the two liquids are layered rather than mixed.

(2) *Probe student responses*. Ask follow up questions to help clarify the child's response and provide you with further insight into her/his thinking. Probing questions could include general questions like, "Can you say more about that?" or "I'm not sure I know what you mean by that; could you explain it to me another way?" Probing questions can also be specific such as, "When you say ice is lighter than water, do you mean ice weighs less than water?"

(3) *Seed new ways of thinking*. The goal of an interview is to find out what ideas the child holds, not to change her/his ideas at that moment. However, it has often been found helpful in teaching to seed new ways of thinking during an interview. This can be done by including questions that have students consider things beyond what they have brought up; for example: "If I push the ice down to the bottom, will it stay there or will it float to the top again?" or "Did you know that most woods float on water too, even though they're pretty heavy?" [Russ, R.S & Sherin, M.G. 2013].

Other helpful hints.

Before the interview, let the interviewee know that you are not *evaluating* her/his thinking or what she/he knows; you are just really interested in finding out how she/he is thinking about a particular situation.

During the interview, assess how the child you are interviewing is feeling. If the child seems anxious or uncomfortable, do not continue interviewing her/him.