

## Formative Assessment Strategies

### Cooperating Teacher

1. The richest source of information about your students may come from your cooperating teacher. Have a conversation with your cooperating teacher focusing on three students in the class.
2. Ask your cooperating teacher about how these students are doing overall, about what motivates them, what their strengths and weaknesses are as learners, and what works best with them.
3. Take notes on what your cooperating teacher tells you-this will help you later when you analyze your students work.

### Homework, Quizzes, and Tests

1. The easiest form of information to collect or analyze about your student's learning is their regular work in the form of homework, quizzes, and tests.
2. This information will be richer if you include questions that require students to explain their thinking. It is especially helpful to ask questions that require students to apply their thinking to a new situation that you have not discussed in class. This requires flexible thinking on their part and should reveal how they are thinking better than questions that allow them to say back what they have memorized.
3. Photocopy examples that helped you learn about your students in ways that helped you adjust your teaching.

### Exit Tickets

1. Give students "tickets" – small pieces of paper designed to look like tickets, but with space for writing.
2. Ask students two questions. One that requires a factual answer about the big idea of today's lesson, but in their own words. A second question should require more explanation of a concept.
3. Give students five minutes at the end of class to write their answers. Their names do not go on these exit tickets.
4. They must give you an Exit Ticket to leave class for the day.
5. Analyze the tickets to learn how many students got the big idea and how they understand it or misunderstand it. Photocopy 4-6 on a single sheet of paper for your portfolio. Select ones that you learned something about your students from that you didn't know before reading the Exit Tickets.

### One-Minute Papers

1. Give students an open-ended question and one to three minutes to write their answers.
2. Good questions: What is the most important thing we discussed today? Or What was the most confusing idea presented today?
3. Collect the papers and use for promoting discussion, identifying misconceptions, or confusion.
4. Photocopy samples of the papers to use with your reflections.

### **Concept Mapping**

1. Provide small groups of students with a list of about 15 related words that might fit well in an outline.
2. Give them small sticky notes to write the words on.
3. Ask them to create a concept map by moving the sticky notes around on a piece of paper until they have them in the right place.
4. Model for them on the board how to draw connections between words and emphasize that the connections should be labeled with words describing the nature of the relation (leads to, is an example of, sometimes goes with, can't happen without, etc.).
5. Walk around while students are creating their concept maps-ask questions about why they are placing words where they do. Keep in mind that the purpose of this exercise at this point is to find out what they are thinking, not for them to get the right answer. So don't prompt them with correct answers.
6. Collect the papers, analyze them to find out what students know, don't know, and what their misconceptions are. Do not write on the concept maps, though you may want to photocopy one or two for your portfolio. If you do this, select interesting examples that helped you adapt your teaching.
7. Create your own concept map-perhaps on overhead transparency.
8. The next day-hand back the concept maps and show your concept map to the class. Emphasize that there is more than one way to organize a group of related terms. Ask groups of students to compare theirs to yours and explain how theirs are different and whether and in what ways they think they should change theirs.

### **Problem Solving Observation**

1. Give the class a complex problem to solve. Ask them to work in pairs.
2. Good problems will have more than one part and will require students to explain their thinking to each other. It may be helpful to use problems that require students to show their thinking in more than one way. Examples of showing their thinking in more than one way might include graphing, diagramming, explaining how someone with a different perspective might answer the question, and generating examples.
3. Join one of the groups while they work. Have in mind that you are observing and focus in a way that you can write down later what you observed. You may find it helpful to jot down 2 or 3 words during this observation to prompt your recall later.
4. Prompt students to explain their thinking to each other. Ask them to say aloud what they are thinking while they are solving the problem. Prompt them with questions such as "Why" "how are you deciding to" or "What were you thinking about when you did that."
5. As soon as practical jot down notes about what you observed-especially including notes about student's problem solving process and what they understand about the process.

### **Survey Students**

1. Although this is not formative assessment of their learning, you can learn a great deal by surveying students.
2. A sample survey is provided on the last page-you can photocopy this survey for your students.

## **Using feedback from students**

### **Engage students in the process**

With any of the methods for getting information from and about students, you can engage students in discussion about their ideas. Present students ideas to the class and use their ideas as a basis for class discussion. Formative assessment and student surveys should be seen as a dialogue between you and your students.

### **See your teaching through your students' eyes**

Try to understand how your students are interpreting and making sense of what you are teaching. You can be much more effective if you are responsive to your students learning and you can only do this by trying to see your teaching from their perspective.

### **Identify Misconceptions**

Consider where student misconceptions are coming from. Identify key misconceptions on the topic you are teaching about-usually there are one or two key misconceptions that are shared by a large number of your students. Student misconceptions are very powerful because they are based on student experience. Bring these misconceptions out in the open and find ways for students to challenge their own misconceptions. Common ways for challenging misconceptions (1) direct refutation, (2) examples that point out why the misconceptions are not reasonable, (3) using visual models that give students an alternative way of understanding, (4) active learning strategies that engage students in thinking (rather than in passively receiving).

### **Photocopying, Saving, Reflection Tips**

1. You will be extremely busy while you are teaching and when you are not teaching you will be extremely busy preparing. You will find it helpful to set up as simple a system as possible for looking at, analyzing, and saving copies of your student's work.
2. As part of your student teaching you are asked to reflect periodically on your lessons. These reflections will be more specific, substantial, helpful to you, and easier to write if you look at examples of formative assessment or your own informal notes while you do your journaling.
3. Keep a box somewhere where you can place photocopies of student work. When you finish your student teaching and start to create a portfolio you will have time to select and organize these pieces, but for now just have one place where you can store them so that you won't lose them.
4. When you write your mid-unit and end-of-unit reflections look through the pieces in this box. This will help you see your student's progress over a period of time.

## Student Survey

<i>In this class I feel:</i>
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Important	1	2	3	4	5	Ignored
Comfortable	1	2	3	4	5	Uncomfortable
Involved in the lessons	1	2	3	4	5	Restless, Bored
Part of a Team	1	2	3	4	5	Alone
Sure of where I stand	1	2	3	4	5	Not sure where I stand

<i>The teacher has been:</i>
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Prepared	1	2	3	4	5	Unprepared
Fair	1	2	3	4	5	Unfair
Helpful	1	2	3	4	5	Unhelpful
Well-Organized	1	2	3	4	5	Lacking Organization
Clear about what's expected	1	2	3	4	5	Unclear about what's expected
Sensitive to my needs	1	2	3	4	5	Insensitive to my needs
Fully engaged and excited	1	2	3	4	5	Seemingly bored
Knowledgeable	1	2	3	4	5	Not on top of the subject
Able to make difficult ideas accessible and interesting	1	2	3	4	5	Over our heads

<i>Our Work has generally been:</i>
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Thought provoking	1	2	3	4	5	Dull
Effective in helping me learn	1	2	3	4	5	Ineffective in helping me learn
Too fast	1	2	3	4	5	Too slow
Too easy	1	2	3	4	5	Too hard
Too much the same	1	2	3	4	5	Too unpredictable
Too abstract	1	2	3	4	5	Too simplistic
Too little	1	2	3	4	5	Too much