

Formative Assessment and Learning

Hi, my name is Dr. Sarah McManus, and I have had the pleasure of representing North Carolina on the Formative Assessment Advisory Committee sponsored by the Council of Chief State School Officers. As a member of that committee, I have worked to help develop a definition of formative assessment that will help us to increase the use of formative assessment in classrooms across the nation. It is my pleasure to bring to you this definition and to announce that the State Board of Education has endorsed this definition as they move forward in preparing students to be twenty-first century future-ready students.

Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes.

Formative assessment is a process rather than a product. It is used during instruction rather than at the end of instruction. It involves teachers, but most importantly, it involves students. During this process students should be able to answer three questions:

1. Where am I going?
2. Where am I now?
3. How can I close the gap?

To help students answer the question, where am I going, teachers should provide students with clear targets written in language that they can understand. In addition they should be given clear criteria for success so that they can see when they have learned the material. Having clear criteria for success also helps students as they reflect on their own learning and as they help to do peer assessment in the classroom.

To help students answer the question, where am I now, teachers should collect evidence of students' understanding of those targets.

To help students answer the question, how can I close the gap, teachers should provide students with descriptive feedback so they understand where they are in their learning, and how they themselves can help close the gap. This descriptive feedback should be specific to the learning task, rather than focused on the student, or their ability, or their achievement level. Let's see an example of formative assessment in progress.

Students are assessing what they're doing. Is it working, and that's one of the things I like about robotics because they get feedback from their robot as they are building it. It works, it doesn't work, or it almost works, and it is giving them the feedback that they need to go on, then they assess themselves. I assess what they are doing as I walk around the room, and I also assess at what I am doing and by looking at what they can and cannot do. So, if they are having more problems with gears and gear ratios than they have in the past, I know I did something differently this year, and I have to make sure that doesn't happen again. I know I may need to go back through that part again.

Did you change any of the motor speed to make that go faster or slower, or did you leave it alone? In a normal classroom book-lecture test, you don't assess what they learned until they take the test and it's too late. Here you can assess all the time what they do and don't know. When I am walking around the room and looking at the kids and listening to the kids next to them, probably its better to listen to them talk to each other to really know what they know than when they talk to me. When the kids will help each other, they find out who can do what they're weak point is and what they need and that shows me what they're good at and not good at also. When you see that they have a programming problem and they go through the same kids, you know those are good kids with programs. When you see someone get disgusted because they can't get the gears fit together, who they ask to help them tells me who really know that. It also let's me know which kids a need to help out.

They are required to have a journal and when we are finished with the other half of the presentations, I will collect the journals, and I will go through them, and part of it is very easy. Do they have a page for each day they were here? Did they write down what they wanted to accomplish? Did they write down what they need to do next time? Did they reflect on what they did that day? That part in itself is just did they do it or not, put it in black or white. The other part of it is can I follow their train of thought? Do I see what is really happening? Was the journal valuable for them and for me? That part is a little less black and white, but it is really what I am looking for. I'm looking to see if they were really thinking instead of just trying to write down a little bit in their journal.

Research has shown that formative assessment helps to increase student motivation, and most importantly, it helps to insure student learning. Thank you.