

Formative Assessment Description

Arlen's Definition of Formative Assessment:

Formative Assessment employs

- (a) planning for the gathering of information to serve learning or project objectives,
- (b) gathering that information feasibly (in timely and appropriate ways), and
- (c) analyzing and using the information to attain intended learning and project objectives.

Formative and Summative assessments both serve evaluations and they have much in common (e.g. focus on same objectives and often apply the same or similar instrumentation). But there are substantial differences between the two. Formative assessment occurs in and serves the work and learning process. Summative assessment occurs at the close of the work or learning effort and provides a judgment about what was accomplished. Like a helping hand, formative assessment is typically viewed more positively by those assessed. For those who have not fully achieved the intended objectives summative assessment can be scary and painful.

Typically, PD includes three components, first the preparation for the PD learning (workshop), second the conduct of the workshop, and third the participants' use after completion of the works to apply what they learned to teach their own students.

Workshop Planning Workshop Instruction Post-workshop use and instruction

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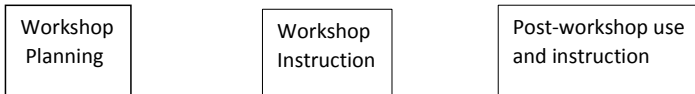
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Formative Assessment in Professional Development

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As you likely know the ATE program’s evaluative interest is on the third component. It directly expects *summative* evaluation of the secondary effects—those of participants’ use and their students’ learning. “Evaluation should demonstrate use in the classrooms and sustainable changes in practice of participating faculty and teachers leading to more qualified technicians for the industry. Changes in student learning outcomes as well as students’ perceptions of technical careers should be assessed.”

While the ATE program’s stated evaluation intentions focus on post workshop findings, the key to obtaining those findings *and producing strong positive outcomes*, depend on PD instruction. This makes the PD instruction and planning for that instruction paramount concerns. The central point is to instruct in such a way that participants not only learn the requisite material but develop capability to teach and appraise their students’ learning. They must not only learn but *transfer* that learning to their students. The ability to accurately assess their own learning is an essential step to that end.

Formative assessment focuses on what these participant teachers must learn to do. There is much written in formative assessment books and research about this learning and transfer of learning process. We draw upon two sets of material. One that focuses on student learning and another on preparing assessment capable teachers.

Hattie, J. A. C. (2009). *Visible Learning: A synthesis of over 800 meta-analyses, relating to achievement* p 239. In his fourth of six points summarizing key findings about student learning he states: “Teachers need to *know the learning intentions* and success criteria of their lessons, *know how well they are attaining* these criteria for all students and *where to go next* in light of the gap between students’ current knowledge and understanding and the success criteria of: “Where are you going?” “How are you going?”, and “Where to next?”

Put in the context of professional development, Hattie’s statements read as follows:

PD instructors and ultimately participant teachers need to

- *know the learning intentions* and success criteria of their lessons,
- *know how well they are attaining* these criteria for all teacher participants and
- *where to go next* in light of the gap between (a) participants’ current knowledge and understanding and (b) the success criteria of: “Where are you going?” “How are you going?”, and “Where to next?”.

PD instructors can only know this information by gathering information along the path toward the intended learning objectives. Participant teachers to be successful must gain this information in their own learning process and then must apply it in instructing their own students. When this is done the path for summative evaluation is also prepared, can be accomplished feasibly and with more positive outcomes in achievements and demeanor.

The challenge of course is to build this formative assessment into PD in a strong, positive, and effective way. That is what we discuss today.

Commented [ARG1]: This is touched on in the PowerPoint