Evaluation to sustain student achievement

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The Challenge

Increasing student achievement is the principal criterion for success for the NCLB-funded IBHE statewide program for Improving Teacher Quality (ITQ). It must therefore be salient in the evaluations of the NCLB-funded projects that constitute the statewide program. The centrality of student learning as the ultimate evaluation outcome is clearly stated in the original RFP and is equally prominent in the interim and final evaluation forms that each project must complete and submit. Yet, evaluation of student outcomes often gets lost in the course of documenting and evaluating the projects' other goals. The reason, I think, is that student achievement comes at the end of a long process or chain of causation. It occurs at later stages of multi-stage projects.

This paper draws some themes on the topic of student achievement from a review of all of projects that constitute the IBHE program. Despite their diversity, all projects in the state's ITQ program confront similar issues. The themes drawn from a review of project documents highlight the projects' common challenges and raise questions for discussion at our symposium. The basic requirements for a project as outlined in the RPF can be summarized in the following logic model.

Logic model of the ITQ/NCLB program[1]

The RPF and the IBHE evaluation documents imply a clear logic model:[1]

(1)	(2)	(3)	(4)	(5)
Partnerships →	**Professional Development →**	**Teacher Learning →**	**Teacher Action →**	**Student Learning**

Each step or stage in this model requires that change occur and that it be documented. Those who do not like the metaphor of a causal chain can think of the program elements as developmental stages or steps in a process. Whatever the metaphor, we can probably all agree that there is little point in helping teachers develop more content knowledge or better lesson plans if these do not eventually lead to improvements in student learning.

[1]This is a simplified version of the models supplied in other papers by my colleagues; it places somewhat more emphasis on the later links in the causal chain.

The Themes

Theme 1: Each of the 5 steps or stages is crucial. Breakdown at an early stage entails failure later on: if the partnerships are not effective, they will not lead to excellence in professional development; if professional development activities are not well designed, they will not lead to teacher learning; and so on. Because of the importance of each stage, and the importance of documenting effectiveness at each stage, projects run the risk of not "getting to" the later stages, especially assessing student learning.

Theme 2: Success at each stage in the process requires that change occur. And success at evaluating the projects requires that change be assessed, which means that some sort of baseline information is needed. Following the old evaluation dictum that "you can't tell how far you've come unless you know where you started," projects need to collect baseline data, especially for stages 3, 4, and 5 (teacher learning, teacher action, and student learning).

Theme 3: Because it is important to document success in the early stages, one cannot ignore the ultimate stage, student learning, which is the whole point of the activity. It cannot be assumed that student learning will "take care of itself" if professional development activities are well planned and executed.

Theme 4: It is not sufficiently clear, in most project documents, how one will know whether project goals have been met. For most projects, it seems not improbable that some gains in student learning will occur, but without specific plans for gathering evidence on the issue, no one will know one way or the other.

Theme 5: Because student learning occurs at the end of a long series of steps, planning to evaluate it must keep the long term in mind. One of the main reasons the projects are funded for multiple years is to enable them to engage in long-term evaluation planning.

Theme 6: For most projects it is too early to collect evidence about student outcomes, but it is not too early (it could be too late) to collect baseline data against which to assess improved student achievement.

Theme 7: Evaluating teacher learning (stage 3) should be relatively straight forward. In the current projects, these evaluations are generally stronger than evaluations of teacher actions (stage 4) and student learning (stage 5).

Theme 8: Evaluating teacher actions or application of what teachers have learned in professional development is more arduous. Are the lesson plans developed actually being used in teaching? How are teachers' actions, or changes in teachers' practices, determined—direct observation for example? Here the record of the projects is spottier. Some of the projects have not specified how they plan to assess applications of what was learned in professional development.

Theme 9: Evaluating progress in student achievement seems difficult for projects to document. Projects rarely have the resources to develop their own assessment tools for this purpose. But projects need not fashion their own measurement instruments. They can use available data, in school records, to address this required element of the evaluation process—such as ISAT or PSAE scores.

Theme 10: Indirect measures of learning can also be highly effective. Indirect measures could include such indicators as rates of students taking elective courses in math and science or attendance rates or dropout rates.

Theme 11: Evidence of student learning need not come exclusively from standardized testing. For instance, examples of projects, portfolios, or homework assignments may be collected. If so, projects will need to specify how this evidence is gathered or how it is sampled. It is essential to demonstrate that the sample is not haphazard or biased.

Theme 12: The unit of analysis of the student learning data can vary. Depending on the project goals data may be gathered at the individual, classroom, and/or school level. One "gold standard" is to obtain longitudinal data on individual students so that individual student learning curves can be studied; these may be pooled to obtain grade-level or school-wide results.

Discussion questions related to the themes

- ***Because time is limited, it would be helpful if project personnel considered their answers to these questions before the Symposium.***

Theme 1: Each stage is crucial.
Discussion questions:

a. Is your project accurately described by the 5-stage model? If not how does your project differ?

b. Is evaluating the 5th stage, student learning, a key component of your project?

Theme 2: Success at each stage requires that change occur.
Discussion questions:

a. Is your project evaluated in terms of changes that occur as a result of its activities? Does another model of measuring outcomes more accurately describe your project?

b. Is the project collecting baseline data to assess change resulting from project activities? If not, how will effectiveness be assessed?

Theme 3: Student learning will not take care of itself.
Discussion questions:

a. Is student learning tied by design to the main elements of your project?

b. How are links among project activities specified and how, in particular, can they be seen to lead to student learning?

Theme 4: It is unclear how one can know whether goals have been met.
Discussion questions:

a. Where in your project are the criteria for meeting project goals clearly specified?

b. Are there areas where the criteria used to determine project success could be more clearly enunciated?

Theme 5: Assessing student learning takes long-term planning.
Discussion questions:

a. Do you see student learning as the long-term goal of your project? Are other goals understood as stages on the way to achieving it?

b. What do your long-term evaluation plans specify as the means of gathering persuasive data about the achievement of project goals?

Theme 6: Student baseline data should already be collected—or soon.
Discussion questions:

a. Has your project begun to collect baseline or data about student achievement that can be used as a benchmark to gauge progress?

b. What are your plans to assess change in student learning?

Theme 7: Evaluation of teacher learning should be occurring now.
Discussion questions:

a. Has evaluation of teacher learning occurred in the course of or upon conclusion of professional development?

b. What are the project's main methods of assessing the effectiveness of teacher learning in professional development activities?

Theme 8: Evaluating teacher practices/applications may be difficult.
Discussion questions:

a. How does your project intend to ascertain whether professional development learning is being effectively applied?

b. Has the project encountered any difficulties in this part of its evaluation activities?

Theme 9: Projects rarely develop assessment tools for student learning.
Discussion questions:

a. Has your project developed its own assessment tools to evaluate student learning?

b. If not, what other sources of data are being used to obtain information about student learning?

Theme 10: Indirect indicators of learning may be appropriate and useful.
Discussion questions:

a. Is your project using any indirect indicators of student learning?

b. If so, which ones? If not, might some such measures be added to your evaluation plan?

Theme 11: Evidence of student learning comes in many forms.
Discussion questions:

a. Is your project using classroom assignment data to assess student learning?

b. If so, how is this evidence sampled so that it is representative?

Theme 12: The unit of analysis for student learning may vary.
Discussion questions:

a. What is your project's unit of analysis in studying student achievement, and why is the project using it? Is there more than one unit of analysis?

b. If it is individual data, can it be summed to aggregates such as classrooms; or if it is classroom or other group data, can it be disaggregated to the individual level?