A Multiple Measures Model for Documenting Teacher and Program Effectiveness

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A Multiple Measures Model for Documenting Teacher and Program Effectiveness

Abstract
One of the most difficult challenges facing teacher educators is evaluating the knowledge, skills, and attributes necessary for professional growth and responsibility for teaching. Currently two viewpoints for preparing highly qualified teachers seem to be influencing policy. One view represented by Darling-Hammond’s research (1999), suggests that regulation of teacher education, state licensing, professional accountability, and compensation are important factors for strengthening teacher quality. A second view, offered by Chester Finn from research completed by the Thomas B. Fordham Foundation (cited in Berry, Hoke, and Hirsch, 2004), emphasizes less prescriptive paths such as alternative certification practices and aptitude testing to attract more qualified candidates to the profession. What seems to be established is that competent teachers are essential to the learning process. Sanders and Rivers (1998) found that effective teachers directly and positively impact the quality of teaching and, more importantly, student learning in classrooms. As a result, the stakes are high for students; their learning may be directly enhanced or damaged by the quality and effectiveness of their teachers’ practices. [excerpt]

Keywords
teacher evaluation, educational assessment, American Association of Colleges for Teacher Education

Disciplines
Education | Educational Assessment, Evaluation, and Research | Teacher Education and Professional Development
A Multiple Measures Model for Documenting Teacher and Program Effectiveness

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A Multiple Measures Model for Documenting Teacher and Program Effectiveness

One of the most difficult challenges facing teacher educators is evaluating the knowledge, skills, and attributes necessary for professional growth and responsibility for teaching. Currently two viewpoints for preparing highly qualified teachers seem to be influencing policy. One view represented by Darling-Hammond’s research (1999), suggests that regulation of teacher education, state licensing, professional accountability, and compensation are important factors for strengthening teacher quality. A second view, offered by Chester Finn from research completed by the Thomas B. Fordham Foundation (cited in Berry, Hoke, and Hirsch, 2004), emphasizes less prescriptive paths such as alternative certification practices and aptitude testing to attract more qualified candidates to the profession. What seems to be established is that competent teachers are essential to the learning process. Sanders and Rivers (1998) found that effective teachers directly and positively impact the quality of teaching and, more importantly, student learning in classrooms. As a result, the stakes are high for students; their learning may be directly enhanced or damaged by the quality and effectiveness of their teachers’ practices.

Institutions preparing teacher educators share the awesome responsibility of preparing new teacher education candidates to engage in pedagogical practices from a deep base of knowledge and experience. Associations such as INTASC (1992) and the specialty professional association standards (SPAS) provide a framework for teacher education programs to document candidate learning, but developing assessment tasks that are meaningful to candidates yet useful for informing program curricular decisions remains a complex and demanding matter. How do we who prepare teachers determine
that preservice candidates are ready to lead their own classrooms and meet definitions of highly qualified? How do we assist students in developing reflection skills that will enable them to identify their individual strengths, weaknesses, growth or their plans for professional renewal? The purpose of our paper is to discuss the use and effectiveness of assessment tasks and tools used at Gettysburg College for documenting the quality of our individual candidates, improving our teacher education program, and for following program completers through their professional assignments. Our work provides one model for examining how teacher preparation programs can use a variety of data sources (qualitative methodological triangulation as recommended by Patton, 1990) at different points during and after the completion of a teacher education program to inform the selection of assessments used to provide feedback to candidates, and, therefore, to effectively prepare teachers.

Methodology

Sample

We studied available data from candidates completing the education program at Gettysburg College. Gettysburg is a small (2400 students), highly selective, liberal arts institution certifying approximately 30 students per year. Our students complete majors in a content area discipline and minor in education. All courses in the education sequence use the Interstate New Teacher Assessment and Support Consortium (INTASC) principles and the Pennsylvania Professional Educator Program Standards and Guidelines to ground our instruction. We offer 14 certificates including those at the elementary, K-12, and secondary levels. Figure 1 overviews the number of program completers by certificates offered since Spring of 1998.
Figure 1  Program Completers in Certificate Area

- Fall 2004
- Fall 2003
- Spring 2003
- Fall 2002
- Spring 2002
- Fall 2001
- Spring 2001
- Fall 2000
- Spring 2000
- Fall 1999
- Spring 1999
- Fall 1998
- Spring 1998

Legend:
- Environmental Science
- Latin
- German
- HPE
- Music
- Biology
- Chemistry
- Math
- Spanish
- English
- Social Studies
- Elementary
Data Triangulation Model

Qualitative methodology offers program evaluators design flexibility so that we can include any and all data that measure and document professional growth of preservice and inservice teachers. Patton (1990) recommends that multiple methods and a variety of data types can contribute to methodological rigor and believes that data triangulation provides an important way to strengthen program studies. Denzin (cited in Patton, 1990) identified 4 basic types of triangulation:

1. *data triangulation*—the use of a variety of data sources in a study
2. *investigator triangulation*—the use of different evaluators
3. *theory triangulation*—the use of multiple perspectives to interpret a single set of data, and
4. *methodological triangulation*—the use of multiple methods to study a single problem or program

It is possible to achieve triangulation by either combining different kinds of qualitative methods or by combining qualitative and quantitative methods. What is important is that multiple methods designs provide cross-data validity checks so they are less vulnerable to errors linked with a single method. To evaluate our program, we are using investigator, data, and theory triangulation as measures of candidate and program quality.

Table 1 charts the methodological triangulation of data sources categorized by sequence for data collection in our program. Each method will be discussed in greater detail in the body of this paper. There seems to be much potential in the model because we include standardized measures (SRI) as well as self-reflection, performance measures
Measuring and documenting effectiveness

(presentation) and content documentation (portfolio) related to national and state standards in the design of our assessment system

Table 1

*Sequence and source of program evaluation data identified by type of triangulation*

<table>
<thead>
<tr>
<th>Data Method</th>
<th>Sequence</th>
<th>Triangulation Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit portfolio</td>
<td>Capstone Ed Semester</td>
<td>Data</td>
</tr>
<tr>
<td>Exit presentation</td>
<td>Capstone Ed Semester</td>
<td>Investigator</td>
</tr>
<tr>
<td>Self Assessment</td>
<td>Throughout Program</td>
<td>Data</td>
</tr>
<tr>
<td>SRI interview</td>
<td>During Ed Semester</td>
<td>Data</td>
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<tr>
<td>On-line alumni survey</td>
<td>Post Program</td>
<td>Data</td>
</tr>
<tr>
<td>Observation/interviews</td>
<td>Post Program Purposeful Sample</td>
<td>Theory</td>
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</table>

The Exit Portfolio at Gettysburg

Introduced during the spring term of 1998 on our campus, our portfolio assessment provides an examination of students’ thinking about teaching and learning. In this capstone exit assessment, students are encouraged to make meaningful connections between the theoretical course content from their classes and experiences that apply to their professional and personal decision making as teaching professionals. The two requirements for the portfolio are a brief statement of one’s personal philosophy of education and critical reflection on *all* selected artifacts. We ask students to explain why artifacts were selected, what those artifacts suggest about teaching and learning, and how they relate to one’s philosophy statement in the portfolio. Only as a second step, do we ask students to use their completed portfolio to decide where the INTASC standards are
addressed by the selected artifacts. In order for students to use their portfolios authentically as they interview for professional positions, we urge students to follow the less is more principle and to be highly selective regarding artifacts they wish to include. We urge students to consider that a single artifact may have multiple intersections to philosophy. As such, part of the process becomes an analysis of how that artifact promotes the students’ understanding of teaching.

Construction of the teaching portfolio is an open-ended and non-prescriptive task, an initial problem for many of our students. Each semester our students tend to experience some disequilibrium caused by the lack of formal parameters, but gradually a departmental “culture” develops among the students for this assessment. As the students begin to realize that their portfolios are personal representations of their own professional growth and therefore no two are exactly alike, the students focus more on accurately representing themselves as professionals than they do on “getting it right.” Because students are interested in using their portfolios as interviewing tools, the stakes for an excellent product are raised by the potential for professional employment. Portfolios are submitted for evaluation at the conclusion of the student’s formal presentation described below and they provide written evidence for a students’ thinking on what it means to become a professional.

**Portfolio Presentation**

A performance assessment related to the teaching portfolio, a half hour presentation, is designed so that students can model and articulate their philosophy of education and demonstrate their presentation skills developed throughout the program.
Student presentations are public forums drawing a wide audience of observers ranging from parents, peer colleagues, and friends, to college faculty, education professionals, and community colleagues. The presentations are publicized on campus, we print formal invitations for students to distribute to those whom they wish to invite, and we conduct presentations in more formal campus spaces. Additionally, every student’s presentation is videotaped; we provide a copy of the tape to the student and reserve one for departmental archives. Over the past several years, we have developed quite an extensive library of videotaped presentations and we used them successfully during our state review to document student achievement. All those in attendance at the presentations have the opportunity to provide written feedback to the presenters. At the conclusion of our presentations, students complete a brief formal reflection on the process, providing useful insights to inform our practices about the program. We developed the original criteria for scoring presentations with our students and those remain unchanged except for minor modifications. All education faculty members collaborate to grade the presentations, achieving a mechanism for investigator triangulation.

Taken together, the portfolio and the presentation assessments constitute about half of the course points in the syllabus, and they constitute the capstone of the education program. Both assessments require a high level of reflection, critical analysis, and written and oral performances of exceptional quality and creativity. They are a celebration of student growth and we look forward to the presentations as a source of significant data regarding the student’s growth and the program’s strengths and weaknesses. However, the two assessments require a substantial donation of faculty and student time. Even so, these assignments never fail to be rated as some of the most
significant assessments of our students’ undergraduate experiences. They allow a final opportunity for feedback among faculty and students prior to professional employment. Our students’ thoughtful constructions provide feedback for faculty as we have a much better understanding of possible curriculum gaps from listening to our students’ presentations, teaching stories, and classroom decisions. Our students appreciate the way the capstone prepares them for interviewing and job searches, their next professional steps. They report that in reflecting on their student teaching experience, they were encouraged to consider their perceptions and beliefs about teaching and learning. When we get calls for job references, employers speak positively about the portfolio’s usefulness in the interviewing process.

Students are challenged by framing their growth as teachers and learners, and we believe that in the process of examining their beliefs for these assessments, our students develop confidence about their teaching and performance skills. It is our hope that beginning educators will come to consider the utility of portfolios in articulating, nurturing, and refining their professional growth. It is not unusual for us as a faculty to hear comments about our capstone assessments long after the semester’s end. For example, a student from the class of 2000 recently disclosed that he was planning his portfolio for his masters program in guidance and counseling. In continuing the discussion, we learned that creating another portfolio was his personal decision based on his belief about the usefulness of such a tool rather than an assessment requirement for his graduate experience.
The following representative comments were collected from student teachers comments on a feedback form distributed at the conclusion of their portfolios and presentations:

1. *How did your portfolio assist you in evaluating your personal growth?*

   - It helped me to express my thoughts and beliefs in words. I feel that I have a better sense of my own beliefs because of it.
   - It makes you organize and prioritize your strengths and weaknesses so that you can work on them.
   - I feel my portfolio presentation greatly aided me in evaluating my professional growth. By reflecting on my emotions and feelings at the beginning of the semester, I was able to see a huge growth in my own ease in the classroom….I was able to see how I put the pieces together.
   - It helped me put together all the things I learned in a succinct format.
   - Oh my goodness, let me count the ways! A level of organization and reflection to my semester’s work that I would not have otherwise reached, and it gave me 2 wonderful tools for future employment. Because of the structure (yet flexibility), I was able to create something unique…although I know it is a work in progress, it is something that I can be proud of.
   - There was no better way for me to evaluate my personal growth through this experience. I got to see what was important to me as a person and an educator.
   - Oh man! It allowed me to articulate the principles of teaching I have been considering all my life. I will be thinking about it for a long time afterwards.
   - Although the presentation and portfolio was much feared, I think that it provided the essential closure of the semester. I was able to take a step back and evaluate the whirlwind of student teaching. I was able to evaluate my strengths and weaknesses and really take a good look at how far I have come. I felt a true sense of accomplishment after constructing my portfolio.
   - It made me think critically about my whole student teaching experience.
   - The process of creating my portfolio allowed me to look critically at what I had done this semester compared to what I thought my philosophy was. I feel I may have answered for myself, many of the questions an interviewer would ask me.

2. *What did you discover about yourself from participating in this assessment?*

   - That I have really grown into who I am as an educator (especially in the confidence and professionalism I have gained.)
• I feel I had to use my knowledge of education to really make a difference in my students’ lives by taking moral, social and ethical situations into consideration.

• I have never spent this much time and effort on one presentation before! I saw myself reaching a personal best in my presentation that I wasn’t sure I could reach. Through my preparation for the assignment, I discovered many of my assets and liabilities as a teacher—what I can draw on for natural talent and what I need to improve on.

• The most significant way to evaluate growth is to examine the changes you’ve experienced. This process has allowed me to examine the ways my perspective has developed—this allowed me to see the centrality of perspective to all students. Continue to make the portfolio an open-ended project. At first I hated it. I wanted specific guidelines! But I learned the most from creating this project for myself.

• I have a deeper understanding of theory-based practices than I had realized previously.

• The true constructivist endeavor! A pulling together of my hard work and commitment to my students. I learned that I really did teach my students and I proved it to myself through re-evaluating the examples of student learning. I feel so much more professional!

• I felt academic satisfaction for the first time. I went through 4 years of college as a procrastinator, but I loved doing the work for student teaching. I enjoyed preparing for the portfolio and presentation, and I feel prepared for my interview next week.

Developing the Habits of Mind Associated with Reflective Thinking

We created several tools for courses in the Education sequence that assist students’ efforts at both self regulation towards professionalism and the INTASC standards, and for reflective thinking. We require students to view all courses in the teacher education sequence as their entry into the profession, and therefore, as a faculty, we challenge our students to make progress toward the standards in each course taken. We build in self checks and instructor assessments during the sequence to determine student progress. The following section discusses several of these assessment tools in more detail and explains how they are used in our program to accomplish our purposes.
Syllabus Arrangement

All courses in the teacher education sequence include the INTASC standards and how they will be assessed on the course syllabus. We introduce the INTASC principles and the concept of reflective thinking as students begin their program of study. Much of the research on reflective thinking discusses the developmental nature of reflection (Sparks-Langer and Colton, 1991), so we use early immersion to offer the widest window for practice of the skill. Students regularly and formally practice reflection as closure in the class as they make meaning on the day’s lesson and its application to their personal professional practice. We read their reflections, giving general feedback designed to advance their reflective thinking skills to high levels, and we often collect their reflections in a portfolio that is returned to students later in the course. As well as providing important points of personal meaning on course content, these mini portfolios provide a developmental record of personal growth. A theme identified in a majority of student comments represented by the quotes below, demonstrate how much these reflection skills improve during the program:

“In class reflections have made me aware of the importance of recording my thoughts and feelings at the conclusions of lessons and other activities that I do with my students.”

“After my observations, I spent a lot of time with my journal. I think I learned more about myself and my future in teaching by reflecting than by reading any text book.”

“I really feel that I have grown a lot, both within myself and in reflection skills. When reflecting, I find myself considering multiple perspectives, moral/ethical considerations, linking theory as well as asking myself questions. Now I do this as a matter of course.”

“Reflection has become a huge part of my thoughts now—I doubt I’ll be able to NOT reflect on my practice as a teacher!”
Midterm and Final Course Participation Self-Evaluations

We emphasize that students should strive to be fully involved in their classes, and in our discussions with students, we operationally define what it means to be a full participant, offering students points toward their final grade for their honest assessment of their progress. At midterm and again at the conclusion of the course, we ask students to assess themselves and to monitor their progress towards their personal goals. This paper and pencil activity requires students to rate their behaviors as they apply to class participation, to give evidence for their conclusions and to set goals for future performance. We believe that this simple activity focuses our students to take personal responsibility for their growth. On the final evaluation, students review the INTASC standards and the Pennsylvania Code of Conduct of Professional Practice for Educators to comment on their progress. Not only does this activity give students a concrete personal assessment of their efforts, it requires them to analyze how they will work to improve their participation. We consistently get feedback that indicates students value the activity (see comments below):

- “After reviewing the INTASC standards, I was amazed about how much I learned and how I have grown. Through class time, observations and group discussions and my out of class work, I have realized so much more about children’s learning processes, theories that affect practice and how teachers can help students develop both in and out of the classroom….I feel I need to work on INTASC principle 9 and 10. I must remember to assess myself and my choices and actions if I want to be an effective teacher. I’m going to continue my journal.”

- “One of the areas in which I think I have learned the most is on principle 9 (reflection). I never realized how important it is for teachers and how regularly (daily!) it must be done. Assessment (#8) is another area in which I feel I learned so much. I never realized how assessments need to be purposefully designed to evaluate progress toward objectives and that our objectives should even affect the types
of questions we use. I have had so many teachers whose assessments stress memorization and recognition even though I’m sure their objectives aimed for higher levels of learning than that. Accommodating diversity (#3) was another area in which I knew so little but learned so much, especially through my final project. I feel better equipped with various strategies to foster learning with struggling and disadvantaged students. I also became much more conscious about the variety of instructional strategies that are useful to me as a teacher and the strengths and weaknesses of each.”

- “I think that this course and the emphasis on the INTASC standards has forced me to keep them in mind when I am tutoring, observing and even just working with my little brother (who has a learning disability). In the end, this points me in the direction of furthering my professionalism and appreciation of ideas.”

- “In this class I did not hide out from class participation and this is important because it shows that I care about everything I am learning and doing here. By now the INTASC standards are a way of life.”

Field Experience Discussion Groups

Pennsylvania certification requirements specify that pre-service teachers complete pre-student teaching observations. We ask students to complete a combination of service learning commitments, tutoring, and classroom practice during the program. We emphasize to our students that they should reach high levels of reflective thinking (Sparks-Langer and Colton, 1991) in regard to their observations. We use journals and required discussion groups facilitated by exceptional student leaders to assist our students in developing reflection skills. We have also used Blackboard postings and reflective essays to assess students’ reflective thinking skills. In these small groups, students must participate and they evaluate their progress as well as set goals for themselves:

- “Prior to taking education classes, I didn’t give the idea of “reflecting” much thought. In my high school life, I only reflected when I was required to on tests, essays or evaluations. In fact, I considered it a chore that was restricted to and only worthwhile in academics. I can recall frequent times when I would sit staring at a blank sheet of paper trying to connect theories and facts to new experiences and to analyze them for
essays. Usually, my creative ability offered me very little so my reflection was minimal. In college, my awareness of the importance of reflection was heightened while taking education courses. In these courses, I am encouraged to reflect on my experiences in the observed classroom and tie reflections to theories learned in class. By doing this, I am gaining a much better understanding of the material and its relevance in real life classrooms. Reflection to me is no longer a chore, but a valuable tool that I readily use. While observing classes, I write down notes that I will later analyze and try to make sense out of. I have learned that reflection is not restricted to academics, but also to a much broader cause, the success of my future teaching career.”

- “I think reflection of what other people say and do has become more of an important concept throughout our meetings. While reflecting on your own situation is very beneficial, a lot can be learned by others’ experiences. While sitting in the group sessions and listening to other people’s observations and then their reflections on their observations, I really felt that I learned a lot. Each student had a completely different experience in our group, and all observed in different school settings. That provides a lot of situations to add to your personal knowledge for future teaching. Reflection seems especially important because it forces you to look back at what you do well and also what went badly. If you reflect on all the situations you encounter in life, look at how much more can be learned!”

- “Reflection means looking at yourself and how far you have come. It means looking at your growth and realizing that it was a process. There were steps involved that helped aid you in getting to where you are. When the semester started, I looked more at reflection as simply writing about what I did, rather than how I did it, and why I did it. That is the core of reflection—it’s understanding, it’s explanations, it’s examination. Looking at reflection as a teacher, it is important because in reality even though we are “teachers,” we are all still human beings, students learning about life. Just because we are in charge does not mean that we have stopped growing and learning. Each day in the classroom, we will learn about our students, we will learn what works with specific classes, and sometimes it is only afterwards when we are reflecting on the day, that we will realize the lessons…”

- “I have heard more of the “R” word this semester than I ever thought humanly possible. At first reflecting was something of an annoying requirement—simply writing down what you saw. Reflection has taken on a whole new meaning these past few months, though. When I reflect, I understand how what I have observed, experienced, or read might possibly affect me in the long run. I am forced to put myself in the same situation and make a decision as to how I would deal with it differently, if that’s the case. Reflection and questioning ourselves might make us aware of
something that we didn’t even notice the first time around. I’ve begun to accept that reflection will follow me through my teaching career and will serve as a constant reminder to me to continue to improve myself as a person and a teacher…Many of my misconceptions about special needs learners have been addressed by these group discussions.”

- “The discussion group has helped me to improve my reflection skills. Sometimes I tend to forget that reflecting can include a group discussion. Others in a group may bring up ideas that I may have not considered at first, but may prove to be helpful in the long run. It is always helpful to have many perspectives on one topic. This experience is wonderful for students observing in schools because it is so important to be able to come together and compare what happened in different classrooms. In a sense, everyone gets to visit many different classrooms instead of just one because of group sharing.”

- [This student showed a real sense of humor and irony on the discussion board with this posting entitled “one last time…or not!”]
  “The subject is my lame attempt at a joke but has a purpose, sort of. I was writing the subject thinking, “ok, one last reflection.” Then I thought about the fact that there is never a last reflection. I think that reflection comes in many forms and in many ways. Reflection allows us to step back and look at something from a different perspective [Selman’s perspective taking]. When we reflect we examine ourselves, our styles, our comments, our techniques, everything that happened. Reflection also allows us as teachers to track our observations, vent our frustrations, seek solutions. We can later use our reflections to show progress, or changes, or to just remind us of something important. When we reflect we challenge ourselves to think critically about ourselves and our performance. We must evaluate ourselves and confront our problems. We must also connect what we’ve reflected on to prior knowledge and understandings. The reflection groups allowed us to share our experiences with others. The sharing of stories allowed us to get insight from our colleagues and we are able to see topics, theories, or ideas brought by our friends that we may not have found ourselves before the session. The sessions also allowed us to review ideas and theories that have been misfiled in the office of our heads! For future consideration, I believe that these groups could be more often, perhaps 6-8 in a semester (1 every other week) but for perhaps a lessened time (45 minutes to one hour). This would allow us to talk about some of our issues in more detail and really dive into the reasons behind some of our ideas. For the first two sessions, we pretty much stuck to one theory. By the final session, we tried to get in a whole slew of new theories. It would just be nice to discuss all the theories the way we did the ones in the first two sessions.”
Interviews/Observation Post Program Purposeful Sample and SRI Assessment

Early in the student teaching semester, we administer the SRI (Selection Research, Inc.®) Perceiver structured interview that is published by SRI Gallup. The instrument provides us with data regarding the student teachers’ beliefs about being teachers, how they relate to students, and how they help students learn. The SRI quantifies teachers’ beliefs about themes in each of these three belief categories:

1. What does this person believe about being a teacher?
   a. Mission
   b. Investment
   c. Focus

2. How does this person relate to students?
   a. Objectivity
   b. Empathy
   c. Rapport Drive
   d. Listening

3. How does this person help students learn?
   a. Input Drive (searches for ideas to help others)
   b. Activation (stimulating students)
   c. Innovation
   d. Gestalt (completeness)
   e. Individualized Perceptions (tries to personalize each student’s program)

Each sub-theme is rated 0 through 5 according to statements made by the interviewees as they answer a set of forty questions. The administrator of the SRI tapes each interview, then listens for key words and phrases that indicate a belief statement in each theme. According to the extensive research done by SRI (1988), “teachers who were rated as “highly effective” by their administrators received a mean score of 32.69 on the Teacher Perceiver Interview, while those rated “less effective” received an overall Perceiver score of 25.08” (p.10).
During the spring and fall semesters, 2003, a faculty member of the Gettysburg College Education Department observed and/or interviewed eight alumni and their administrators. These were recent graduates of the college who were teaching various grade levels and subject matters. Their scores on the SRI can be noted in the following Table:

## SRI® Scores of Selected Gettysburg College Education Program Alumni

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<tr>
<th>THEMES</th>
<th>Teacher A</th>
<th>Teacher B</th>
<th>Teacher C</th>
<th>Teacher D</th>
<th>Teacher E</th>
<th>Teacher F</th>
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<td>Individual</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

| SCORE           | 36        | 34        | 32        | 43        | 46        | 45        | 35        | 33        |

Each of these teachers was rated highly by their administrators and observations substantiated the rating of “highly effective.” These teachers are regarded as leaders in their schools.

In contrast, below are the SRI scores of several students who were “counseled out” of teaching because of their poor performance in the classroom:
Measuring and documenting effectiveness

SRI® Scores of Selected “Poor Performers” in Student Teaching

<table>
<thead>
<tr>
<th>THEMES</th>
<th>Student Teacher I</th>
<th>Student Teacher J</th>
<th>Student Teacher K</th>
<th>Student Teacher L</th>
<th>Student Teacher M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Investment</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Focus</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Objectivity</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Empathy</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Rapport Drive</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Listening</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Input Drive</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Activation</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Innovation</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Gestalt</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Individual Perception</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>SCORE</strong></td>
<td><strong>28</strong></td>
<td><strong>20</strong></td>
<td><strong>14</strong></td>
<td><strong>11</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

While we do not use these data to make concrete decisions regarding a student teacher, we do use the information to substantiate or refute observations of their effectiveness. We counsel each student regarding their perceived strengths and areas of concern. We use these data with care, because every so often, a student’s performance is better or worse than the score would indicate. For example, two of our recent graduates had scores of 39 and 43, but had difficulty during their student teaching experiences. After teaching for one year, they were not re-hired by their school districts and were rated poorly by their school administrators.

**Alumni Survey**

Pennsylvania, like most states, requires teacher education institutions to submit data annually and to follow up those students completing a teacher certification program. In order to gather this required data in an efficient manner, we decided to pilot an electronic survey of our most recent graduates (2002-2004). We introduced this survey...
Measuring and documenting effectiveness

during Fall 2004 semester. We developed a variety of questions soliciting both
demographic and opinion data about the program in both forced choice and open-ended
formats (see Figure 2). Then we mailed a letter to all (N=48) post 2002 graduates
announcing the survey and soliciting their cooperation for completing it. Currently,
three-one alumni have responded (65% response rate). Thirty of these respondents
exited our program having completed the Student Teacher Portfolio capstone assessment.

Figure 2

*Gettysburg College Alumni Survey*

<table>
<thead>
<tr>
<th>Gettysburg College - Education Department Alumni Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3. Are you currently Teaching?</td>
</tr>
<tr>
<td>- Yes, fulltime</td>
</tr>
<tr>
<td>- Yes, substituting</td>
</tr>
<tr>
<td>- No</td>
</tr>
<tr>
<td>4. Where are you teaching?</td>
</tr>
<tr>
<td>- In Pennsylvania</td>
</tr>
<tr>
<td>- Other</td>
</tr>
<tr>
<td>5. If you're not currently teaching, are you doing something related?</td>
</tr>
<tr>
<td>- Graduate School</td>
</tr>
<tr>
<td>- Coaching</td>
</tr>
<tr>
<td>- GED Instructor</td>
</tr>
<tr>
<td>- Other</td>
</tr>
<tr>
<td>6. If you're doing something related, where are you doing this?</td>
</tr>
<tr>
<td>- In Pennsylvania</td>
</tr>
<tr>
<td>- Other</td>
</tr>
<tr>
<td>7. If you're not currently teaching, are you doing something non-education related?</td>
</tr>
<tr>
<td>- Editor</td>
</tr>
<tr>
<td>- Trainer</td>
</tr>
<tr>
<td>Question</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 8. If you are working in a non-education field, where are you working? | ○ In Pennsylvania  
○ Other                                                                       |
| 9. How long have you worked in your last position?                      |                                                                        |
| 10. Are you taking graduate course work?                               | ○ Yes, fulltime  
○ No                                                                 |
| 11. What is your field discipline?                                      |                                                                        |
| 12. How satisfied are you with your Gettysburg College teacher preparation? | ○ Very Satisfied  
○ Somewhat Satisfied  
○ Indifferent  
○ Somewhat Unsatisfied  
○ Very Unsatisfied |
| 13. How have you used your professional portfolio?                      |                                                                        |
| 14. How has the use of your portfolio evolved through your career?      |                                                                        |
| 15. How satisfied were you with the Education Department’s requirement of a professional portfolio? | ○ Very Satisfied  
○ Somewhat Satisfied  
○ Indifferent  
○ Somewhat Unsatisfied  
○ Very Unsatisfied  
○ Not a requirement when I completed the education program |
To compile and interpret the patterns and themes in the data, we organized responses by frequency on a spreadsheet. Next, two of us examined responses, verifying and confirming the patterns we individually noted in the data to obtain interrater reliability. While our survey results may suffer from possible selection bias, we found the following preliminary data useful for providing a broad overview of the respondent group:

- These graduates’ teaching experience ranges from less than one year to five years.
- Their teaching experience is predominantly in the eastern United States.
- 83% are teaching full-time, leaving only 17% to work in related fields (higher education, educational psychology, or as research assistants).
- 17% are currently taking graduate courses and pursuing degrees within the field of education.
- 83% were very satisfied with the professional portfolio requirement.
- 83% used their portfolio during their job interview process.
- 60% report that they continue to reflect and update their portfolios.
- 19% refer back to their portfolios and use it as a reference. 17% continue to change their philosophy as well.
26% would have liked more direction when asked to create their professional portfolio.

16% of the graduates report that they enjoyed this capstone experience.

The following comments are representative of our graduates’ reflections on the evolution of their portfolio:

- “I have actually created a more concise portfolio for interviews, and to share with others.....it contains updated philosophies and lesson plans from my teaching career. By updating its contents, it keeps me fresh as a professional and always pushes me to better myself as a teacher.”
- “I have noticed that many of my values and beliefs have remained since I started my portfolio, but some of the ways I put those beliefs into use in the classroom has changed. It is evolving as I encounter new hurdles.”
- “It has become more in depth and has a lot of data and techniques added to it. It also has my management techniques that I use daily.”
- “I add my reflections after each year of teaching to modify my portfolio. I like to review my portfolio and video tape before the beginning of each school year.”
- “Because I have used the themes in my portfolio as a basis for my annual goals, my portfolio naturally updates itself each year. As I work to hone my professional skills in a specific area, I generate numerous products and a great deal of reflection that easily blend into my developing portfolio. Thus, in addition to being a tool for sharing my professional identity with others, my portfolio has become a more personal tool--one that allows me to explore and express myself.”

Survey responses also provided some recommendations to us for improving the capstone experience. The following include the most representative comments:

- “I recommend keeping the high standards set forth for the portfolio. It’s really an asset in discovering who you are as an educator and putting that into words and evidence. I feel it really helped me feel prepared to enter the job market.”
- “Provide an opportunity for a mock interview that involves utilizing the portfolio or model an interview that uses a portfolio effectively.”
- An online portfolio in addition to the paper portfolio. But there must be a lot of tech support involved for students.”
- “Slightly more structure. I think the freedom of the portfolio project was great, but maybe a few more leading questions; especially ones that would direct the portfolio to being not only a reflection of our student teaching experiences, but also as a resource for the future for jobs, applications, etc.”
The preliminary results from the survey pilot provide support for the capstone assessment at Gettysburg College; our graduates report being very satisfied with the assessment and many used their portfolios in the interview process. We are excited that these new professionals report that they continue to use the portfolio process to reflect on their growth even though constructing such a document may not be a *formal requirement* in their districts. We also gleaned retrospective information from practicing professionals on our program, particularly the capstone assessment. Finally, we want to revise some of our survey questions for clarity and to add a few questions to gain some additional insights on curricular content and sequence of the program, as well as personal perceptions of preparedness for classroom leadership.

**Conclusion**

This paper describes one model for examining how teacher preparation programs can use a variety of data sources at different points during and after the completion of a teacher education program. These data inform the selection of assessments used to provide feedback to candidates and therefore effectively to prepare teachers. Teacher education programs continue to be challenged to document qualified and effective newly certified teachers. Therefore, it becomes more important to explore, as diversely as possible, the measures we use to provide feedback to preservice teachers to enhance their understanding of teaching and learning and encourage their professional growth. By including measures for inservice teachers to intentionally reflect on their preparation for teaching from a “long view” steeped in daily practices, we provide a critically important voice for informing and designing effective teacher education programs and assessments.
Our work examines several promising methods for assessing and documenting professional growth of preservice and inservice teachers. These methods may be underutilized by teacher education programs in designing assessment systems to measure and document teaching effectiveness. There is much potential in the model because we include standardized measures as well as self reflection, performance measures, and content documentation related to national standards to design the effectiveness of our assessment system at both preservice and inservice levels of practice. With an increasing emphasis on accountability, teacher education faces increased scrutiny for aligning teacher certification with learning standards. Our work offers options for using research based methods to inform assessment practice.
References


