

Ascertaining the Impact of Professional Development Work¹

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Context

Learner-Centered Initiatives is a small consulting organization based in Long Island, New York. Its mission is to foster self-sustaining, learner-centered environments through rigorous and reflective professional development programs that address the needs of specific schools and districts. Since 1992, LCI has supported numerous three-year regional and district-wide programs whereby groups of teachers have had the opportunity to refine their teaching and assessment practices and expand upon their assessment repertoire.

All of these comprehensive programs have had a program evaluation component, and in some cases, dedicated evaluation staff that sought to ascertain program impact on teacher and student learning. Extensive survey data has been collected on participants' reactions, learning and perceived organizational support. In the third year of each of these projects, curriculum units, performance assessments, projects and portfolios that revealed the extent of teachers' application and use of new knowledge and skills were also collected. In some cases, where there has been access to students taught by participants, data on students' perceptions of teachers' practices have also been collected.

The data aforementioned has been used to make program refinements or changes, to document program activities, and to legitimize the resources committed to them. Until recently, we have not been able to devote significant resources to ascertaining their long term impact on teachers' and students' learning. However, to date, there are insufficient studies of the impact of professional development on teachers' practices (Guskey and Hirsch, 1996). Last year, LCI decided to revisit several of these programs with the goal of ascertaining their impact on teachers over time. This document summarizes the findings from one of the study's components.

Introduction

In March 2003, Learner-Centered Initiatives launched a study driven by the following question:

What is the impact of LCI programs on teachers' knowledge, design of curriculum and assessment strategies and processes, use of curriculum and

¹ We are indebted to the 74 participants who kindly agreed to be interviewed for this study.

² The evaluation team who contributed to this work includes Barbara Colton, Diane Cunningham, Angela Di-Michele Lalor, Laura Ostrer, and Joanne Picone-Zocchia, Ms. Picone-Zocchia also served as primary editor.

assessment strategies and processes, student learning, leadership roles, and motivation to continue learning?

Reasons for pursuing this study were varied. Among them were to assess the sustainability of teachers' learning over time; to inform our current design of professional development experiences; to identify the program attributes that matter most to teachers; and, to determine the extent to which these attributes are supported by the professional development literature.

This report is descriptive in nature, seeking to summarize teachers' self-reported data related to the long-term impact of professional development on teachers' learning. The data came from extensive phone interviews of participants from the programs previously described. Additional data, yet to be analyzed for the purposes of triangulating and expanding upon this study's findings, will be obtained from baseline measures of teachers' assessment knowledge and use, teachers' professional portfolios containing lessons and assessments, and student work samples, many of which were submitted while the programs were being implemented, and others recently submitted by 25% of the teachers interviewed in this study.

Two other questions we pursue in this report are:

1. What do these findings reveal about what teachers value with respect to professional development?
2. How can this data be used to design future professional development programs?

Program Description

Altogether, LCI facilitated six multi-year programs between 1992 and 1997. These programs sought to increase teachers' ability to design and implement standards-based curriculum and assessment as well as to increase the internal capacity of their schools through increased teacher expertise. All programs had significant common elements. These included:

- A focus on K-12 standards-based and learner-centered curriculum and assessment strategies supported by current research on best practice (Marzano, et.al., 2001)
- A structure that supported the development of learning communities (i.e., collegial work around unit and assessment design; individual and collaborative action research; a risk-free environment where diverse perspectives were valued; extensive time to reflect, document changes, and revise; and rigorous analysis of teacher and student work through peer- and self-assessments)

- One or more facilitators who used learner-centered strategies as the primary instructional method (i.e., design and adaptation work, simulations, role plays, hands on activities, one-on-one conferences, and problem-based work)
- Teams of teachers from the same school or district
- A timeframe that allowed for multiple cycles of learning, application, feedback and revision
- A professional portfolio that included evidence of participants' learning, use of new knowledge and skills, student work, and reflection
- The inclusion of school administrators as learners.

The differences among these programs included:

- Five programs were regional and one program was district-based
- Five programs included 4-6 full days held during the year and a summer component (one or two weeks); one program was delivered exclusively during full days within the school year
- Contact time with teachers ranged from 50 to 80 hours per year
- Five programs emphasized standards-based and learner-centered curriculum and assessment across the curriculum, whereas one of them focused exclusively on literacy.

Each program year was structured around a limited list of exit outcomes that defined the expectations for teachers' learning and work. A typical list of outcomes with supporting activities follows:

1. Develop and use integrated curriculum, instructional, and assessment strategies for helping all students attain State Standards.

Design new and refine existing curriculum units and assessments
Explore best strategies for curriculum integration
Practice using Socratic seminars
Examine alternative forms of document-based questions

2. Develop authentic learning and assessments experiences and measures that increase students' success on the State assessments.

Design new and refine existing standards-based assessments
Design new and refine current portfolio measures
Expand and refine use of reflective and meta-cognitive measures

3. Develop a professional portfolio to document their learning processes and products.

Continue to gather and analyze evidence of learning in the program
Self- and peer-review of portfolio inclusions

4. Assess the impact of their own learning on student performance through the use of action research and collegial work.

Learn about and design action research activities
Analyze state test data and student work generated by participants

5. Engage in adult learning and staff development activities.
Develop and refine strategies for supporting adult learning
Engage in simulations and role plays of scenarios that support adult learners.

A typical day in these programs began with a 30-90 minute plenary session on a specific topic such as effective questioning approaches or the use of assessment rubrics to support and measure student learning. Additional activities included a practice session that enabled participants to adapt or design lessons or assessments based on the morning plenary; a work session in which participants worked individually, in groups or had one-on-one meetings with program staff; and a segment for process reflection, self-assessment, or peer-review.

Methodology:

Given that the elapsed time between the programs and the study ranged from seven to nine years, we decided to contact as many people who attended the programs as we could, instead of selecting a sample. We began this study by retrieving directories for all three-year programs, then identifying and contacting those who completed an entire program. The total number of eligible participants who completed all three years in these programs was 260³. Of these participants, 78 could not be located since they no longer worked in the school system. During the six-month period allotted for data collection, we were able to contact and interview 77 participants (42.3% of the remaining pool of 182).

Upon examining the characteristics of the cohort that responded and the one that did not, we found no discerning differences between the two groups in terms of demographic characteristics or program participation. Nonetheless, a higher response rate would have been preferable to confirm our perceptions.

The interviews were conducted between March and September 2003 by two staff members from the Center for the Study of Expertise in Teaching and Learning and were structured around the following segments:

1. Motivation to participate, complete the program, and continue to learn
2. Program impact on participants' knowledge of standards-based curriculum and assessment and of learner-centered practices
3. Program impact on participants' curriculum and assessment design
4. Program impact on participants' use of standards-based and learner-centered practices

³ We eliminated 10 eligible participants with whom LCI has continued work after 1997 to ensure that all responses came from people with whom contact had ended after the programs were completed.

5. Program impact on student learning
6. Program impact on leadership behaviors
7. Salient program components
8. Impact on current work

Appendix A includes a list of questions we asked under each of the preceding categories.

Data Analysis

The initial analysis was conducted by one of the staff members who conducted the interviews using a reduction and coding procedure (Glaser and Strauss, 1967). This analysis resulted in a preliminary report. Subsequently, five other scorers from Learner-Centered Initiatives analyzed the data again with each person coding responses for 1-3 questions. This work yielded five new reports which were then compared to the preliminary report and analyzed jointly by all evaluators. The findings in the five reports supported the preliminary analysis but revealed some differences in our use of the codes. To resolve these differences, all individual reports were subsequently recoded using a shared protocol and analyzed jointly. Finally, two scorers recoded one fifth of the study and compared their scores. The resulting inter-rater reliability was 96%.

Two things were discovered:

- 1) Participants' responses to the different questions often answered more than one question so that themes were difficult to code and disaggregate. For example.

I got the tools to develop learner-centered curriculum and assessment (impact on design). As I said before, I got the tools to move from content-based instruction to learner-centered instruction (impact on knowledge) using rubrics, performance-based, collaborative assessments (impact on use). It changed the whole environment of my classroom...

- 2) In every one of the individual staff reports, regardless of the question that was analyzed, participants referred to very specific program attributes which **they** considered important. These attributes included:
 - a. Opportunities to apply knowledge and skills
 - b. Impact on the school or other organization
 - c. Impact on student learning
 - d. Quality of the program's facilitation
 - e. Opportunities for professional growth
 - f. Opportunities to share with others and work collegially

Upon discovering these attributes, we decided to probe further into their significance by re-coding the entire data using these salient attributes, and produced yet another evaluation report. We used that report to explore the relationship between these attributes and the literature on professional development, and more specifically, to the research on learning communities.

The first section of this report includes our findings from the original questions we asked participants. The second section explores the common attributes generated by them which transcended the individual questions.

Participants were asked questions regarding why they chose to engage in a multi-year staff development program. Following is a description of each of the themes around which their responses were clustered, as well as examples of participants' responses. In some cases, where participants mentioned more than one theme, the percentages represent the number of responses to the question and not the number of respondents.

Findings

1. Motivation to Participate, Complete the Program, and Continue to Learn

Sixty percent of the responses reflected participants' interest in learning meaningful and relevant education information that would impact their practice. Many of them cited what they were learning as a reason for remaining part of the professional development initiative. Learning referred to both content-specific information and information that would lead to personal growth and development. Topics included diversified assessments, authentic measures and rubrics. Following are three examples that depict the nuances related to participants' motivations to learn about assessment measures and data.

- *I was very interested in the writing process and how to encourage and evaluate writing. I thought it would be a great opportunity to hone these skills.*
- *I was interested in authentic assessment and I wanted to learn the different ways to assess my kids in a practical and meaningful way that would benefit both the students and me.*
- *I was designing benchmark assessments in 8th grade. We were told data, data, data but we didn't know how to collect it. I was sure that this program would be enlightening.*

Twenty-seven percent of the responses referred to the opportunity to build the internal capacity of the school or district as a motivation.

- *...We had just begun implementing a full inclusion program in our sixth grade and he (the middle school principal) felt this program would be beneficial in the development of our program.*
- *I chose to participate to enhance my knowledge of curriculum and assessment development in order to facilitate change within my district.*

Ten percent referred to the opportunity for participants to develop a community of learners and work collegially.

- *I wanted to be in a community of like-minded authentic assessment practitioners; to expand my knowledge; to validate my path as a teacher.*
- *... We had a great sense of teamwork and a mutual desire to get to the end because we knew we were learning something great.*

The remaining percentage of responses (4%) explicitly referred to a possible impact on student learning as the primary motivation to participate in the program.

The preceding responses suggest that participants' motivations were clustered around two major areas: professional learning and internal capacity building. Both of these motivations are consistent with Sergiovanni's (1996) renewal approach to professional development whereby professional development is driven by intrinsic rather than extrinsic forces. The small percentage of teachers who stated improved student learning as their primary motivation for participating in the program indicates that much has changed since 1997. At the time that these programs were implemented, the connection between professional development and resulting changes in student learning was not emphasized as much as it has been in recent years (NSDC, 2001).

2. Program Impact on Knowledge about Standards-based or Learner- Centered Curriculum and Assessment

When asked to assess the program impact on their knowledge, respondents indicated that such impact was significant. Using a Likert scale, where 1 was "not at all" and 5 was "extensively", participants' produced a mean rating of the program impact on their knowledge was 4.4. More than half of the participants expressed that the program provided them with significant insights about standards, curriculum, instruction and assessment that resulted in changes in their practice. These insights led to either changes in beliefs or increased depth of understanding. The following examples suggest changes in teachers' beliefs about teaching and learning.

- *As it turned out, standards-based design really stretched my belief about what kids can do.*

- *The project caused me to think differently about the work we provide for students and the means we use to assess their work.*

In some cases, this impact led to a re-evaluation of teachers' own roles, as evident in the following entry:

- *(The facilitator) once said that "good teachers often don't know what makes them good teachers." That struck me. That idea forced me to reflect on why I do what I do in the classroom. It forced me to identify what I do and why it works. It brought me to a level that I could communicate to others what I was doing and why it helped students.... It gave me value. It gave worth, value to what I did, to me and to others.*

Other responses emphasized increased depth of understanding rather than specific changes in beliefs.

- *The program provided depth to what I was already doing. I had creative ideas but needed "meatier" assessments and activities and more student reflection.*
- *I had my heart in the right place but not the building blocks.*

Asked "In what specific ways did the program affect your knowledge about standards-based or learner-centered curriculum and assessment?" participants responded with illustrations of applied knowledge and skills around three shared goals related to teaching and assessment themes. These included:

- a) learner-centered education and standards-based design;
- b) diversified assessment; and
- c) self-assessment and student reflection using rubrics and explicit scoring criteria

What follows is a synopsis of the extent to which participants referred to each theme.⁴

a. Learner-centered education and standards-based design

Twenty six respondents (40%) mentioned the impact of the program on their knowledge and use of learner-centered and standards-based design. Participants varied in their reference to the standards and outcomes and their linkage to curriculum, instruction and assessment. For example, the following responses focus primarily on the value of standards-based design.

⁴ Because participants often referred to more than one theme, the percentages of respondents associated with each theme is larger than the number of respondents.

- *Aligning my curriculum with the standards, from what I knew in my soul to actually doing it. I found gaps in my teaching and got much more in depth into projects and standards-based teaching.*
- *To design backwards, with outcomes and objectives at the head.*

Other responses addressed instead the impact of the program in terms of helping teachers use the standards to become selective and strategic in their teaching. The following are some examples.

- *I learned that I need to know why I am teaching a certain unit and if I don't, it stops. The rationale comes from their needs, from the community, the NYS standards. I align every learning opportunity with expectations. Some habits of mine, I have learned, need to be dismissed. No more fluff.*
- *I didn't have a clear idea at first; the program helped me to articulate goals and objectives for students and was able to weed out what we really didn't need anymore. I was much more focused and was able to design better.*

Several other responses linked standards to learner-centered curriculum and assessment approaches. Following are some illustrations.

- *I learned that in order to have this type of assessment and curriculum, teachers need to thoroughly know what students need to know and the developmental progression needed to reach the standard.*
- *It clarified how to go from the standards to class activity. Congruence is so important. This process sets the tone for every decision: it can be learner-centered and it is not that hard a thing to do.*

Some responses, not directly related to the use of standards-based design, referred instead to the use of tests as a way to seek standards' attainment and for understanding and addressing students' needs. Following are two quotes that reveal the range in teachers' use of the standards in test preparation.

- *It used to be that at the end of the year the students and I had 5 weeks to prepare for the Regents. That is all we did. Now the preparation for the exams is embedded in the year-long teaching.*
- *I developed a systematic approach to analyzing the NYS Grade 4 language arts and math assessments using student work as a means for identifying patterns of strength and weakness.*

b. Diversified assessments

Twenty-three respondents (35.3%) referred to new knowledge and skills related to the use of diversified assessments. Some examples follow:

- *I incorporated portfolios into science and math so that all the kids' learning became interconnected through their writing.*
- *I learned to be flexible in my use of assessments in so many ways; the product themselves, the time allotments, the varied levels of expectations and the types of rubrics I used for assessment. I designed some with the kids for self-assessment.*

c. Self-assessment and student reflection using rubrics and explicit scoring criteria

Eighteen respondents (27.6%) highlighted their use of rubrics and explicit scoring criteria and seventeen (26.1%) mentioned using self- and peer-assessment. An excerpt follows.

- *I really do believe in student reflection. It makes a big difference in students' ability to retain information. At least once a week I have students reflecting. I also talk to their parents about the importance of reflection in their kids lives.*

Several of these responses referred to the value of using explicit scoring criteria and rubrics for student self- and peer-assessment, as well as for teachers to clarify their expectations. Following is an example of these responses.

- *The idea that students should understand how they are graded and why they are graded the way they are. That there was a consistency in my assessments and the grading.*

A common thread in many of the responses clustered around this theme was helping students assume greater responsibility for their learning. This is evident in the following quotes:

- *I also learned to implement strategies that put them in control of their own learning, as with rubric design and reflections. It really impacted the way I think. It is the only way I function now as a staff developer, as well as then as a teacher.*
- *As a result of this program, my teaching style changed to allow more student-directed learning. Also, I became more confident in implementing other forms of assessments and explaining those to parents.*

The majority of participants' responses to the question on the program's impact on their knowledge point to changes in applied knowledge and skills. This is consistent with the observation made by Wald and Castleberry (2000) that teachers' learning

is often biased towards action. They also indicate that the programs' goals were evident in teachers' stated learning of standards-based, learner-centered processes and the ability to translate that knowledge into classroom practices.

3. Program Impact on Participants' Curriculum and Assessment Design

In response to the question: "How did the program impact your ability to design curriculum or assessment strategies or processes?" 42 respondents referred to specific changes in their ability to design diversified assessments, learner-centered strategies and/or curriculum. The mean rating of the program impact on participants' ability to design curriculum and assessment was 4.3 on a scale of 1-5.

The remaining respondents answered different questions related to the impact of the program on students' learning, working with adults, etc. As was mentioned earlier, there was a repeated pattern of teachers' focusing on the same attributes regardless of the question asked.

Changes in practice included an array of specific additions or revisions to educators' repertoire of instructional processes or audiences. The most predominant of these, offered below with excerpts, was the use of alternative assessments (rubrics, performance based assessments, portfolios, student reflection/self-assessment). These assessments were used as classroom, school and exit measures, and in some cases, as a substitute for state tests.

- *...my assessments became more performance-based, with outcomes explicit based on the standards with less emphasis on demand assessments. I also have rubrics designed for almost all tasks – concrete criteria for the kids to see.*
- *Their portfolios were very reflective of growth. These portfolios are really windows into each and every child. They are better examples than test scores for college entry.*
- *We wrote a letter to the state to ask permission for the kids to use portfolios instead of taking the standardized test and they were accepted.*

Changes in practice also included the design of curriculum (aligning curriculum to standards, integrated/interdisciplinary designs, use of essential questions) and the use of outcomes-based/learner-centered strategies (student self-assessment, student-centered approaches, opportunities for revision).

- *In the old way, I used to teach and then test the students on what I thought I taught. With standards-based design, the students knew what was expected and I would take them there. More like a coach.*
- *With better designs, my lessons are more focused, the objectives are clearer, especially for my 8 year olds. The assessments I design are much better now. Because my goals are clearer, I am better able to design assessments that address those goals. The program helped me to articulate what I wanted eight-year olds to be able to do and then helped me design ways of achieving those goals.*

4. Program Impact on Participants' Use of Standards-Based and Learner-Centered Practices

Even though the interview protocol distinguished between design and implementation, many respondents did not make this distinction. Those that did referred specifically to the implementation of strategies learned (57.4% of the responses). Cited 29 times is the use of alternative assessments; and cited 20 times are changes in the educators' design of curriculum. The remaining citations related to participants' increased ability to share their learning with adult learners or to produce student learning.

Representative Excerpts of Use of Diversified Assessments:

- *I am better able to use diagnostic assessment. I'll ask the kids in September for a project and reflection and then ask them again to do the same in June and look for growth.*
- *I am currently math chair and I have designed new assessments for 5th grade math which was used by every 5th grade math teacher. My direction was to parallel the format of the 8th grade math test.*

Representative Excerpts of Changes in Implementation of Curriculum:

- *I wrote learning experiences that were accepted for the NYS Academy for Teaching and Learning.*
- *I helped 5th grade teachers develop a writer's program.*

In addition to making changes in their curriculum, several participants mentioned accompanying changes in their instructional practices, with a shift towards enabling students to assume a more active role in their learning. An example follows:

- *I taught a lot less. By that I mean that I act now more like a guide, redirecting students. I can set the situation up, provide experiences for the students and they use the language, the rubrics, checklists as tools to learn....I got out of the students' way and their work was better."*

The preceding references highlight participants' action orientation and desire to delve into critical activities related to teaching and learning. This orientation is underscored by Darling-Hammond (1997) and by DuFour, (2003).

5. Program Impact on Student Learning

Sixty three (85%) of the participants stated that their participation in the program had a definite impact student learning. The mean rating for the program impact in this area was 4.2 on a scale of 1-5. Four others (5.7%) indicated that they did not think there was any impact or could not determine if there was any. The remaining 3 (4.2%) stated that their role did not allow them to ascertain evidence. Of the 63 participants that claimed to have had an impact on students, 58 provided specific evidence of such impact. This evidence was generated through 82 different examples, which were clustered around 5 themes.

The most frequently mentioned theme referred to increased learning and performance (mentioned in 50% of the responses). Such increase was found in test scores, work samples, portfolios, assessments, reflections, and rubrics.

- *Students' results went up to 90% on the Regents Diploma and more importantly 50% on the Regents Diploma for classified students.*
- *Regent scores are up; I had my first 100% passing at a 60% mastery or better.*
- *The quality of the student work. I had to keep raising and changing the standards in my rubrics. I was getting closer and closer to the state's #4. In 1997, 3 girls came up as exemplars. That was the first time that happened for me. I saw three exemplars of a state #4!*

The second most frequently mentioned theme (30.1%) referred to changes in students' attitudes, dispositions and motivations as learners.

- *The students became active learners. Before they were passive learners waiting for the final on demand test. Now students showcase their work in a performance assessment and their student portfolios...*

- *They are much more aware of their learning process. Their meta-cognition is much greater. They can explain their learning processes and the strategies they use to solve problems, to learn...*

The third theme (8.5 of the responses) referred to what the teachers did to increase students' learning.

- *I look at my unit and lesson plans from years ago and the current ones are much more rigorous. Compared to ten years ago, now as I construct units I am getting at a much deeper level. Their work is more insightful, more reflective, more intensely personal. They are more accountable for their work, far more invested in it.*
- *... I can use their student work to help me design tasks to meet the state's alternative assessments. I have better evidence now of their growth because their work is more integrated and the simple rubrics help me give them feedback.*

Evidence in the form of parent and teacher satisfaction or recognition of the quality of student work, constituted the fourth theme (7.3% of the responses).

- *Parent feedback. They would say to me, I can't believe he can do that." My colleagues in the hall would stop me and say, "I had so and so in second grade and I can't believe what he is doing now."*
- *These reflections go home to the parents. There is a place where I comment before that, but also a place for them to comment, too. I have much more parental support now, they are taking more responsibility for their child's learning and they are getting more involved in their progress.*

The last theme, mentioned in 3.7% of the responses, related to graduation, completion of courses, increased enrollment in programs, and preparation for the world of college or work.

- *I can absolutely guarantee that every graduate here can do the following: Write a research paper, write a reflective entry or a problem solving one; a job interview, write an essay on the value or purpose of work, write a resume, job application, express their visions and goals at a competent level or better.*

Participants referred to areas of student impact that transcend the acquisition of specific content or skills, focusing instead on increased learning and performance, as well as changed motivations, attitudes, dispositions, and underscoring the importance of having students assume responsibility for their learning. Interestingly, many of the resulting outcomes of their work reflect their initial concerns when they began their three-year professional development program.

There was a significant range in the specificity of participants' responses related to their impact on student learning. Such range may be due to many factors, one of which relates to the programs' areas of emphasis. During the period in which these programs were implemented, we placed greater emphasis on the importance of helping individual teachers make significant and positive changes in their practice, rather than on linking teachers' learning to changes in student performance. We assumed that teachers would need 2-3 years to develop the competence to make significant changes in their practice and used student work and data primarily as evidence of teachers' learning. We diminished the risks associated with shifting professional practices and explicitly deemphasized their direct linkage to student performance. In some ways, the emphasis on teacher-as-learner contributed to the lack of specificity in teachers' attributions of impact on students.

In recent years, there has been much greater emphasis on linking professional development to student learning. Such emphasis has led to more explicit ways of coupling teachers' practices to student performance. It remains to be seen if, at the same time, it has resulted in any undesirable effects in terms of teachers' learning.

6. Program Impact on Leadership Behaviors

Sixty five respondents stated that the LCI program impacted their leadership behaviors. The mean score for the programs' impact in this area was 4.3. Interestingly, respondents answered the question about skills and behaviors by talking about their knowledge, skills and attitudes combined. They also described the various leadership roles that they attributed to participation in the program, including roles existing both within and outside of their schools and districts. In general, they spoke more about increased confidence and knowledge base as support for the leadership work they took on, and less about specific leadership skills⁵. Finally, there was some discussion from participants about obstacles to facilitating the work of other adults.

Many of these participants (61%) described impact on leadership behaviors in terms of the formal or informal roles they assumed. These respondents took on the following types of roles:

⁵ Participants' responses often incorporated multiple themes. This explains why the percentages in this section exceed 100%.

Twenty four respondents (36%) described taking on more formal leadership roles such as:

- leading workshops, in-service courses, leadership training
- presenting at conferences or superintendent conference days
- serving on committees related to curriculum and program design
- serving as a committee leader
- being a guest speaker in another district
- organizing staff development for the district
- teaching graduate courses

Twenty three respondents (35%) described taking on informal roles such as:

- sharing work or helping others
- facilitating small group mini sessions, focus groups, peer reviews
- sharing at faculty meetings or grade level meetings
- mentoring/coaching another colleague

Five respondents (7%) described taking on new leadership positions including, administration, department chairperson, and consultant.

A second theme related to leadership behaviors emerging from participants related to their increased confidence as leaders. Eighteen respondents (27%) clustered around this theme. Representative responses follow:

- *Gave me a knowledge base, an incipient, seminal base that breeds confidence and change.*
- *I was much more confident that alternatives were possible and I could give personal advice.*

A third theme referred to increased knowledge. Ten respondents, (15%) cited an increased knowledge base or a deepened understanding as evidence of impact on leadership skills. Representative responses include:

- *Confidence of having knowledge, not just the old gut feeling.*
- *As a new school administrator, the program gave me background knowledge on the concept and work.*

Eight respondents (12%) revealed a deeper understanding of the obstacles that leaders face. Specifically, they spoke about their increased awareness of barriers to being able to lead or to being effective within a leadership role. The barriers included time, teachers' resistance or apathy, contract negotiations and problems, and state policies. The following responses reveal the types of barriers mentioned:

- *I have gained more confidence in my own skills, but this does not easily translate into facilitating the work of others. There is not much time given to me at this point for working on curriculum. It is on an unpaid, on-your-own-time basis. Therefore it is proceeding at a very slow pace.*
- *I am tormented by the State's restrictions. They don't even know what we are doing. They don't come here. How can I share with my teachers my philosophies and have the state disallow the curriculum?*

Nine respondents (13%) mentioned specific leadership skills. There were 12 specific references to skills, namely communication, team work, using a constructivist approach, engaging in reflective practice, and articulating clear needs and objectives. Following are some examples.

- *It equipped me to work with big and little groups. It helped understand how to design collaborative groups, how to lead discussions....I have to tailor professional development work for individual groups of adults.*
- *I became a supervisor and did the evaluations and observations of the teachers. Now I had the language to do my job! (and the 'eyes'?) Yes, I knew what to look for to give them useful feedback and I had the language to talk about it...*
- *Also learning how to articulate needs and objectives in the classroom helped tremendously in doing the same with adults. I believe learning how to articulate my goals in the classroom taught me how to articulate goals in other areas of my work at school.*

Fifty-seven (90%) of those who responded that the program had an impact their leadership skills were able to provide specific evidence to support their statements. There were 91 specific responses, and the majority of that evidence (60%) refers to changes in other teachers' practice. Not surprisingly, the evidence cited for other teachers reflects the changes respondents cited for themselves. They noted changes in other teachers' assessment practices, curriculum design, ability to reflect on their own practice, and attitudes.

Thirty two responses (35%) referenced specific changes in teachers' assessment practices including the use of portfolios, rubrics, authentic tasks and projects, student reflection and self-assessment. Twelve responses (13%) referenced other teachers' ability to reflect on their own practice including conducting data analysis and documentation of work. Seven responses (7%) cited changes in teachers' ability to design curriculum. Three responses (5%) cited positive teachers' reactions and one response (1.7%) cited increased participation from teachers as evidence of improved leadership skills. Sample responses related to other teachers' practice include:

- *There are files of the T Writing Project 7-12 at the 10th grade level. Leisure reading projects that I instituted were done in another form for honors classes. I heard from colleagues in 10th honors that they also now give a summer assignment as I do for books, reports and self-assessments.*
- *I know that some teachers are using rubrics now that didn't use them before. They are using different types of assessments, student reflection and teachers' evaluation of student work is more useful, informing the teaching itself.*
- *Unit planning the teachers did. There was a team of 2nd grade teachers who developed rubrics and essential questions, framing curriculum design. As a principal I was trying to pass it on to teachers, in the observations and feedback I also provided.*

Of the remaining evidence cited, thirteen responses (22%) described new jobs, new roles, new degrees and accomplishments such as publishing and receiving awards; thirteen responses (22%) described the development of a learning community or activities that reveal that teachers are willingly learning from each other; and four responses (7%) cited changes in teachers which led to changes in students.

- *The fact that I am now superintendent of the district! (laughter) And that the student portfolios we began years ago are still in the classroom.*
- *I walked into (our) building where traditionally doors had been closed, teachers embarrassed to share practice. Now they were going into each other's classes, sharing books, asking for each other's help. This was over six years. I was able to begin the evolution of turning the middle school into an adult learning environment, breaking down these barriers.*
- *I designed a course, for example, "Using Data to Inform Instruction" plus all the other things I have mentioned about my work with teachers (looking at student work to inform practice, gap analysis, rubric design, breaking writing down into pieces accessible to children).*
- *I put a mentoring program together for new staff. We keep journals and learn through observation and action research, which will eventually influence their teaching style*
- *Also, I walk into our building now and teachers come and ask me about help in instruction, like rubrics design. I see changes in our building. More community building, more authentic assessments in the classrooms. Also, visitors come and the kids knock their socks off!*

Participants' characterization of the program impact on their leadership skills and behaviors was expressed more in terms of desired outcomes rather than changes in

roles. This is consistent with participants' action orientation and with their understanding of leadership in terms of what they could do (Lambert, 1998). Van den berg (2002), among others, cites the successful development of teachers to the presence of transformational leadership. This appeared to be the form of leadership that participants embodied in their work with other adults.

7. Salient Program Components

When asked why they stayed in the program over the three years, participants' responses were varied, yet clustered around three major themes. These were: 1) program components, 2) learning components, and 3) needed time and effort. The largest percentage of participants' responses (48%) referred to specific program components. These included the leadership of the program, the collegial work, and the richness of the reflective activities.

a. Program leadership

Participants' responses emphasized the importance of knowledgeable presenters and their facilitation of a risk-free learning community, as demonstrated in the following comments:

- *I stayed because (the facilitator) made it personal. She brought it down to an administrative level; it was a family-style thing, mingling with colleagues, and we were always in a comfort zone while stretching ourselves. You could forget about work and work on personal development.*
- *What I remember most is (the facilitator). She was the best instructor I had. She got so much out of us, so many chances to talk about issues with colleagues, which we almost never do because we don't take the time. She gave us time. And she was such a dynamic speaker, she made us think. (The other facilitator) too, sharp as a tack.*

Responses also showed they enjoyed having the opportunity to work with others in a meaningful way as stated in the following:

- *...It was wonderful to have these groups teaching and learning and not griping about bureaucracy and what's missing. We wanted the best and here we could have it.*
- *I remember the camaraderie of the program participants. We went through marriages and divorces and births together. It was a wonderful professional network, all of us on the same journey. (The facilitator) had the oars but we were in the boat and not many jumped ship.*

Many responses alluded to the rigor and richness of the reflective opportunities.

- *What I remember most is the time I was allowed to take to think and reflect on myself as teacher and mentor.*
- *The incredible intellectual stimulation. So few professional development programs are this intellectually rigorous. The entire effort was rigorous-all the conversations, with (the facilitator), with each other as participants. The way the whole structure was set up was so intellectually stimulating.*

The second thematic cluster comprised learning-related items. These were mentioned in 33% of the responses. Learning included specific content, the results of learning, and the learning process.

- *The physical discomfort of true learning. (The facilitator) will remember this image: the time I threw myself across the table with my hands on my heart. That is how painful this learning was.*
- *The thing that I really remember is the minute that I said, "I get it! I finally get it!"*

The third most frequently mentioned cluster (14%) related to time and effort.

- *...The idea that this takes time, commitment and a lot of work. Moving to a focus on conceptual teaching...*
- *It was hard work!!! It was at first a foreign language I had to learn. But there was a turning point. The day (the facilitator) allowed me to take one more week to complete a project she had asked us to do and many had not done it. Her understanding made all the difference and I started to show that kind of understanding with my students. I had not done that before.*

Finally, several other responses suggested that participants were aware of the possible impact that the professional development program would have on their job. Following is an example.

- *There were many pieces of the program that I loved but the most significant for me in my work dealt with, curriculum maps, essential questions, document-based questions, responding to student work and creating parallel tasks.*

Participants in this study underscored specific leadership qualities that enhanced

their learning. These include leading by example, providing safety nets for experimentation and reflection, and creating a collective sense of purpose and vision. Such qualities have been highlighted in studies related to leadership (Senge, 1990) and to learning communities (Wald and Castleberry, 2000). Nair's (1994) concludes, "Leadership by example is not only the most pervasive but also the most enduring form of leadership" (p.140).

The emphasis of rigor and high expectations as a valued component of professional development programs is supported by Wald and Castleberry (2000) in their proposal that a "community provides a context for the emergence of unpredictable potential" (p.15), where a sense of interdependence feeds the collective potential and encourages everyone to meet high expectations.

It appears that "leadership", "community" and "rigor" worked well together in sustaining participants' program completion and commitment to learning.

Impact on Current Work

Respondents were asked to comment on the extent to which the changes they made in their practice during their participation in their project and immediately thereafter continue in their present work, whether it be that they remain in the same instructional setting or not. Seventy four percent of the respondents referred to a commitment to continued improvement and stated that they continue to apply what was learned in the program. Following are some examples of their responses related to curriculum and assessment design.

- *My search for authentic vs. appropriate assessment. When the opportunity comes up for projects, I am more flexible in the planning and design. I let the students guide me. Recently we had an opportunity to design and paint a wall for the Y. They agreed to do the design work but decided that the people who would benefit from the wall should do the labor...*
- *Authentic assessments remain the cornerstone of my teaching and the greatest gift I offer my students and school community. I remind myself daily that this was, in fact, the point of the project to inform my teaching.*

Participants also mentioned sustained changes in their use of authentic assessments.

- *I have local farmers come to the classroom so the kids hear first-hand about local farming and they are required to develop projects around this knowledge; interviews and reports both oral and written and rubrics for both.*
- *For example, I do a landscaping project outside our school with the kids. These are very handicapped kids, ages 13-17. This project became an integrated project. We wrote letters requesting seeds, produced advertisements; kids even answered questions for the grant. Before the program, I was doing this project in pieces. Now it became fully integrated, naturally embedding writing throughout the project, using math for sales and planning. It also integrated the kids with one another and made them members of the school community, integrated into the school setting.*

Twenty five percent (25%) of the responses provided evidence of change in participants' work with other teachers, or in how they managed their schools as administrators, or disseminated information to others.

- *As an administrator, I have an awareness of what is going on and could be going on in the classroom. I can help shape the teachers teaching so that instead of covering the material the focus is on learning how to learn.*
- *Today as a principal I stress the need to have performance-based assessments. Last year, when I was preparing the new teachers, I contrasted authentic learning, project work and constructivism. We did some jigsaw work together and they could see for themselves how these overlap sometimes.*
- *When I was teaching, I used rubrics and portfolios. As an administrator, I have knowledge to help teachers implement the NYS Assessment rubrics.*
- *Two teachers and I proposed a new approach to staff development... We call it The Academy Approach and it was approved. We were limited to 12 teachers in the first year; we did 5 summer days and then every other month, the off months provided the time for work on projects.*

Other responses (18%) provided evidence of current work with students, as illustrated by the following quote.

- *...in the last years of my work I had an inclusion class. The level of writing I got improved each year. The inclusion kids did it!!! I raised the standards and they were proud. They had to do the same as the other kids and they could do it! I gave the stepping blocks and they did the stepping.*

Seventeen (25.7%) of the respondents stated they were not using what was learned in the program. Of these, 61.9% referred to changes in professional role, and 38.1%

stated that there was a perceived mismatch between program learning and district focus.

Paradoxically, in some of the contexts in which program participants work, a significant emphasis on accountability as measured by student performance in high stakes assessments has led to a decreased emphasis on diversified and authentic forms of assessment as well as student reflection.

Limitations of this study

This report would be greatly strengthened if supported by data from other measures, including baseline measures of teachers' practices or current samples of teacher and student work. While we are beginning to analyze such data, additional work needs to be done to better understand the real impact of the programs on teachers' learning and practice.

We lack data on the correlation between students' performance on high stakes tests and their performance on diversified performance and portfolio measures. We also lack data on the actual dissemination process that occurred as participants implemented what they had learned in their schools and in other organizational settings. Such data would allow us to better understand the merits of regional and district-wide programs that target a small group of teachers from specific schools, vis-à-vis school-based programs which involve what may be considered a critical mass of teachers.

What do these findings reveal about what matters to teachers with respect to professional development?

Across all questions, responses from participants identified six distinct attributes associated with “good” professional development. These attributes sometimes enhanced their responses to the questions we asked, but other times became the primary focus of their answers. These attributes, presented in descending order from most to least frequently mentioned, referred to experiences both during and since the actual professional development programs, and indicate a distinct vision of quality professional development.

- **Opportunities to apply knowledge and skills**
Darling-Hammond (1997) argues that quality professional development focuses on the critical activities of teaching and learning and grows from investigations of practice. Throughout the program, participants were offered multiple and varied opportunities to use what they had learned in their work with students. Interview data suggests that participants valued being able to use what they have learned and that many of them were able to continue to do so long after the program ended.
- **Impact on the school or other organizations**
Participants were keenly aware of both the potential for and reality of affecting the school and/or organization(s) to which they belonged both during the program and beyond. Being able to relate their own learning to school and/or organization change seemed to lend credibility and importance to both themselves and their learning.
- **Impact on student learning**
Respondents directly connected their own learning to improvements in student learning, engagement and motivation, and not just in increased test performance. However, several of their claims about the programs’ impact on student learning were fairly general or impressionistic.
- **Program facilitation resulting in opportunities to work collegially**
Responses firmly established the importance of the facilitator’s merits and competencies as related to the quality of a professional development experience. Also emphasized was the degree of rigor associated with the program. When discussing the program itself, participants repeatedly referenced opportunities to work as part of a collegial group, to share ideas, and to give and receive feedback. The importance of this attribute is further evidenced by responses that indicate ongoing participation in or attempts to replicate the collegial atmosphere so valued in the program.

- **Opportunities for professional growth**

Learning during the course of the program, whether it was related to the development of skills, concepts, processes, pedagogy or beliefs, was both deeply valued by participants and deemed a measure of quality in the professional development experience.

How can this data be used to design future professional development programs?

Findings from this study have implications for future professional development programs. It appears that programs such as the ones described in this manuscript, have a lasting impact on teachers' learning and work. Providing teachers with support to learn and use meaningful knowledge and skills in a safe yet rigorous environment that supports experimentation and action, seems to be paramount.

Connections between the attributes that participants associate with high quality professional development experiences and current literature related to learning communities are intriguing, raising the question of whether future professional development should be designed without an explicit, simultaneous attention to the development of learning communities that support the individual learning needs of its members.

Rick DuFour (2003) identifies six "Characteristics of Learning Community" which can be related to many of the attributes of quality professional development gleaned from our study. They are: shared mission, values, goals; collaborative teams; collective inquiry into "best practice" and our current reality; action orientation/experimentation; commitment to continuous improvement; and results orientation. Taken individually, support for each characteristic can be found throughout the impact study itself. This is especially true for the attributes of action orientation/ experimentation; commitment to continuous improvement; and results orientation as evident by the overwhelming emphasis that participants placed on the use of learned knowledge and skills to improve upon their practices. Collectively, DeFour's characteristics describe a structure within which the attributes of quality professional development identified by study participants can thrive. Our work suggests that this structure is one where a shared purpose does not override an individualized focus.

The use of the term "learning communities" was not commonplace at the time that these programs were implemented. However, participants in this study made multiple references to the conditions found in learning communities (i.e., opportunities to collaborate, ongoing reflection, shared commitment to standards-based practices, continuous improvement). With participants in professional development programs being able to articulate attributes of quality professional development that both support and are supported by the development of learning

communities, implications for the design of future professional development programs seem to revolve around crafting meaningful learning experiences that are shaped with and within the context of a community of learners.

Creating a collaborative environment has been described as “the single most important factor” for successful school improvement initiatives and “the first order of business” for those seeking to enhance the effectiveness of their school (Eastwood & Lewis, 1992, p. 215). Learning communities appear to be a key to sustained and systemic change. “As is the case with classrooms, learning communities emerge naturally from a climate of trust and caring in which where the invitation to take risks is ever-present. In such communities, the pursuit of personally owned knowledge and the application of known skills in novel ways are explicitly valued. Discoveries are celebrated, and mistakes are considered valuable learning opportunities. These communities can be small or large, but they must always be composed of educators who care about each other, who value the process as well as the product, and who feel respected and safe” (Martin-Kniep, 2004).

The challenge for professional developers is to create such an environment inside schools, where politics and cliques thrive, and where the conflict between supporting learning and measuring teachers is ever-present.

Professional development programs may now need to address the need to provide individual learners with a mechanism for maintaining and nurturing the learning community beyond the parameters of the professional development experience itself, thereby sustaining the program learning and providing a structure that supports continued exploration, growth and change for both teachers and students.

References

- Daring-Hammond, L. (1997). *The right to learn*. San Francisco: Jossey Bass.
- DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Glasser & Strauss. (1967). The development of grounded theory.
- Guskey, T., & Sparks, D. (1996) Exploring the relationship between staff development and improvements in student learning. *Journal of Staff Development*, Fall, (17) 4 4-37.
- Lambert, L. (1998). *Building leadership capacity in schools*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Martin-Kniep, G.O.(2000) *Becoming a better teacher: Eight innovations that work*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Martin-Kniep, G.O. (2004). *Developing learning communities through teachers' expertise*. Los Angeles: Corwin Press.
- Marzano, R. What works in schools. (2003). Alexandria, VA: Association for Supervision and Curriculum Development.
- Marzano, R., Pollock, J.E., and Pickering, D. (2001). *Classroom instruction that works*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Nair, K. (1994). *A higher standard of leadership: Lessons from the life of Gandhi*. San Francisco: Barrett-Koehler.
- NSDC, Standards for staff development, (2001). National Staff Development Council.
- Senge, P. (1990) *The fifth discipline*. New York: Doubleday.
- Sergiovanni, T.J. (1996). *Leadership for the schoolhouse*. San Francisco: Jossey Bass.
- Van den Berg, (2002). "Teachers' meanings regarding educational practice", *Review of Educational Research*, Vol. 72, No. 4 p. 612.
- Wald, P.J., and Castleberry, M.S. (2000). *Educators as learners: Creating a professional learning community in your school*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wiggins, G., and McTighe. (2000). *Understanding by design*. Prentice Hall.

APPENDIX A

Motivation to participate and to continue learning

- Why did you choose to participate?
- Did you ever consider not completing it? If so, why?
- What made you stay?
- Having had participated in the program, would you have recommended others to do the same? Who would you have recommended it to?
- Have you pursued other opportunities to learn more about standards-based and learner-centered curriculum, instruction and assessment since the program ended? If yes, can you describe them?

Knowledge and Thinking

- On a scale of 1-5 where 1 is not at all and 5 is extensively, what was the impact of the program on your knowledge of standards-based design?
- On a scale of 1-5 where 1 is not at all and 5 is extensively, what was the impact of the program on your knowledge of learner-centered curriculum and assessment?
- In what specific ways did the program affect your knowledge about standards-based or learner-centered curriculum and assessment? What did you know before participating? What did you learn as a result?

Curriculum and Assessment Design

- On a scale of 1-5 where 1 is not at all and 5 is extensively, what was the impact of the program on your ability to design curriculum or assessment strategies or processes?
- How did the program impact your ability to design curriculum or assessment strategies or processes?

Curriculum and Assessment Use

- On a scale of 1-5 where 1 is not at all and 5 is extensively, what was the impact of the program on ability to implement curriculum or assessment strategies or processes?
- How did the program impact your ability to implement curriculum or assessment strategies or processes?

Student Learning

- On a scale of 1-5 where 1 is not at all and 5 is extensively, what was the impact of the program on your ability to affect student learning?
- How did your participation in the program affect student learning?
- What evidence do you have of such impact?

Leadership Behaviors

- On a scale of 1-5 where 1 is not at all and 5 is extensively, what was the impact of the program on your ability to facilitate the work of other adults?
- How did the program affect your leadership skills or your ability to facilitate the work of other teachers?
- What evidence do you have of such impact?

Salient Program Components

- What do you remember the most about the program you participated in?

Impact on Current Work

- What evidence of what you learned in the program is found in your work today?
- Do you currently design curriculum or assessment based on what you learned in the program? Can you give us an example? Can you send us an example? What will you send us?
- Do you currently use curriculum or assessment based on what you learned in the program? Can you give us an example? Can you send us an example? What will you send us?