

Data Brief

Chicago Teachers Project: Everyday Math Leadership Training, January – June 2004

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Introduction

This data brief reports a subset of the findings from the external evaluation of the Chicago Teachers Project (CTP). The CTP is funded by an Illinois Board of Higher Education No Child Left Behind Improving Teacher Quality grant for the fiscal year 2004 (IBHE NCLB grant). Dr. Andrew Isaacs of the University of Chicago School Mathematics Projects is the Principal Investigator for this project, which works to support Chicago Public School grades K-5 teachers using the Everyday Math (EM) curriculum. External evaluation for CTP is being undertaken by evaluators from the University of Illinois at Chicago's Institute for Mathematics and Science Education.

The design of the external evaluation of CTP includes the collection and analysis of data about CTP efforts with: a) EM teacher professional development that occurred in the winter and spring 2004; b) EM leadership training workshops, conducted during the 2003-04 academic year; c) the EM professional development offered in the fall of 2004; and d) the use of EM in the New Teacher's Network at the Center for School Improvement. This data brief covers activities dealing with point (b) above based on observations of a sample of EM leadership training workshops that occurred in the winter and spring of 2004.

Between January 1 and June 31st, 2004 the CTP offered monthly EM leadership workshops to approximately forty participating teachers. This data brief is based on descriptions of workshop content and format, analysis of workshop goals and quality, and the impact of training on participants.

Evaluation Method

The evaluation of leadership training was organized around three guiding questions:

- a. What is the format and content of the workshops?
- b. What is the quality of the sessions? Do the sessions model quality professional development practices?
- c. What leadership skills do participants report that they gain?

The data used in the evaluation of EM leadership training was a combination of: a) analysis of agendas of the leadership meetings; b) observations of leadership training sessions; and c) the reflections of participants. Considering the above guiding questions, the design of the evaluation is as follows:

Table One: Evaluation Framework

Guiding Question	Design of Evaluation	Amount of Data Collected
1. Workshop format and content	Observations were made using a protocol that allowed for the coding of time allocation in workshops. Analysis and coding of agendas supplemented these observations.	A total of 360 minutes (~6 hours) from 3 leadership workshop sessions were observed in March, April and May of 2004. Agendas were collected and analyzed.
2. Quality of professional development	Observations were made using a protocol that framed desired qualities of professional development.	A total of 360 minutes (~6 hours) from 3 leadership workshop sessions were observed in March, April and May of 2004.
3. Impact of training	Teachers were asked how the workshops they attended influenced their leadership in math in their school/district.	13 participants (out of approximately 43) from leadership training were interviewed/surveyed about their experiences in leadership training. 6 of those interviewed were among those selected to offer professional development in the summer and fall of 2004; 7 did not volunteer or were not selected.

Overview and Notes

The Chicago Teachers' Project has three overarching goals:

- i) To improve student achievement in mathematics at Grades K-5 in the CPS;
- ii) To improve the quality of mathematics instruction at Grades K-5 in the CPS; and
- iii) To develop local leadership that can sustain long-term improvement in mathematics instruction achievement in the CPS.

The leadership training falls under the third goal above—the development of local leadership to sustain long-term improvement. During the Fall 2003 work with EM schools in the CPS, Everyday Math staff identified a group of approximately 25 Chicago Public Schools' employees to participate in professional development workshops for leaders. This training was to build upon training that was already given to these actors through OMS-sponsored Specialist and Coach training, and EM teacher professional development. The goal was to prepare these leaders to assist with the training of new cohorts of teachers in Everyday Math materials and approaches, creating an infrastructure for the training of an increasing number of Chicago Public Schools' teachers. Between January and June 2004, these actors were to be given 24 hours of advanced training in the components and approaches of Everyday Math across different grade levels and aspects of the program.

The process of leadership selection and the details of the number of hours of training offered to these leaders evolved during the project. Additional participants in the leadership training were added as other teachers, Specialists and Coaches asked to be included in the training and as principals requested that teachers from their schools be included. This increased the number of workshop participants to approximately 43. The understanding was, however, that not all of those trained would be selected to offer summer and fall professional development to CPS teachers. Participants who were willing and able to participate in leading the summer and fall trainings were asked to volunteer. From those volunteers, a group was selected to do the professional development.

In terms of the training schedule, the June workshops had to be cancelled due to logistical problems. The February, March, April and May sessions amounted to eight hours of training for all of those participating in the Leadership training. The remaining sixteen hours of sessions, offered at the end of June 2004, rather than being offered as structured training sessions to all participants, became working sessions for those who were chosen to offer summer and fall training. These changes in the planned offerings by EM are discussed in the concluding section of this data brief.

Findings

We begin with a consideration of the format and content of leadership training, with special attention to time allocation as an indicator of the goals and foci of the sessions. Sections analyzing the quality and impact of the training follow.

Workshop Context and Format

The eight hours of training offered to leaders consisted of four two-hour sessions offered monthly in February, March, April and May of 2004. Meetings occurred on weekday afternoons after school from 4:30-6:30 in the evening. The timing of the sessions and the location of the workshops on the near south side of the city meant that some teachers arrived early to the sessions if they were coming from schools that were near to the training while others, with a longer trip across the city, arrived closer to the meeting time or a little tardy.

The workshops occurred at the Chicago Public Schools’ Medill Professional Development Center in a room that lends well to interactive and group-oriented activities. Small tables throughout the room allowed participants to sit in groups of fours and fives. The shelves against the walls of the room are lined with mathematics curriculum materials, including those of Everyday Math. The setting was comfortable, professional and intimate.

To begin the consideration of the Leadership Training offered from February to May of 2004, we first take a look at the format – how time was allocated – in observed workshops.¹ Written observation notes were first coded to quantify time allocation during the sessions. The following categories were used for coding:

- Individual work: Time in which participants worked alone on an activity
- Small group: Time in which participants worked on an activity in table groups
- Full group discussion: Time spent in full group discussion of teaching and learning, generally facilitated by instructor
- Presentation by EM staff: Time spent listening to instructor presentation related to teaching and learning
- Presentation by Leadership workshop participants: Time spent listening to the presentations of participants. This occurred in the form of informal presentations, where the workshop leaders asked for volunteers to share their work or ideas, and formal presentations, where small groups were asked to prepare and present presentations.

Table Two: Percent of Total Session Spent on Various Activities in a Sample of EM Leadership Training Professional Development, February - May 2004

	March 2,	April 22,	May 6,	Average across
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¹ Structured observations were undertaken at three of the four two-hour workshops. The numbers and percentages reflected here are from observations of the March, April and May sessions.

<i>Total Minutes Observed</i>	2004 <i>(120 min)</i>	2004 <i>(100 min)</i>	2004 <i>(125 min)</i>	three sessions <i>(345 min)</i>
Individual	3.4 %	25.0 %	4.0 %	9.9%
Small Group	56.6 %	60.0 %	40.0 %	51.5%
Full group	25.8 %	13.0 %	10.4 %	16.5%
Presentation (EM)	8.4 %	2.0 %	16.0 % ²	9.3%
Presentation (Participant)	5.8 %	0.0%	29.6 %	12.8%

Analysis reveals that, on average, the largest percentages of time were spent in small group work and discussion, at 51.5% of workshop time. Full group discussions and debriefing took about 16.5% of observed time. Participant presentations, informal and formal, were about 12.8% of workshop time. The bulk of this occurred in the session on presentation skills and styles that occurred in May, where this was nearly 1/3 of workshop time. About 9.9% of observed workshop time was spent in individual work. Instructor presentations and talk were about 9.3% of workshop time, on average.

Workshop Content

Based on the analysis of agendas and observation of three of the four two-hour sessions, the content of the EM Leadership trainings spanned across six main subject areas:

- Leadership: Participants were engaged in discussion about the concept of leadership, especially within the context of Chicago Public Schools. (This was the content of the first workshop in its entirety).
- Math content: Participants were introduced to, and encouraged to engage in and discuss, mathematical concepts.
- Everyday Math materials: Participants were introduced to the Everyday Math materials and the particular approach of the EM instructional materials to math content.
- Multiple grade perspectives: Participants were introduced to a single mathematical concept and how it was taught at multiple grade levels.
- Presentation skills: Participants explored the components of a good presentation, through examples by Everyday Math staff and through their own preparation of presentations.
- Communication skills: Participants explored the concept of communication, engaging in activities requiring communicating together and debriefing the challenges and supports to good communication.

Separating the components of the EM Leadership training into discrete topics demonstrates the range of topic covered in the workshops. However, this list does not capture the essence of the manner in which subjects were introduced in the sessions, which was much more dynamic and fluid. It would not be possible to do a breakdown of the activities of the sessions and to provide percentages of time spent on each of the above areas. Rather, the goals were woven together in single activities with multiple goals. To give justice to the manner in which these topics were interwoven, illustrations from each of the three observed sessions appear below.

The March session introduced the concept of equivalent fractions. The day began with a general focus on the mathematical concept by having participants work through an activity where they cut pieces of

² This number is artificially inflated because Everyday Math staff members were purposely using poor presentation techniques to demonstrate their impact on participants. This is explained in more detail in workshop content descriptions.

paper into the size of various fractions and pieced them together to make other fractions without using their knowledge of common denominators. After participants had the chance to work through this activity, alone and in small groups, they then came together as a full group to talk about what they had learned. “What specific concepts does this lesson entail,” one EM presenter asked. Participants responded: “Equivalent fractions.” “Adding fractions.” “Dividing a whole.” “Why is this activity so important for teachers to do,” asked the other EM presenter. “Understanding that children think differently from us,” one teacher responded. “Understanding that kids think differently from *one another*,” stated another. “Teaching students to use trial and error to learn,” stated another participant. “These are good ways to think about the philosophy of Everyday Math,” stated the presenter.

In this way, these lessons about the math they were learning were then linked to the Everyday Math materials and the goals of the materials. Participants worked on a mathematical concept, developing their thinking about the topic in a new way. This, in turn, was used to demonstrate to participants the philosophy of the Everyday Math program in general.

This conversation about the mathematical concept of equivalent fractions and how it was demonstrated in Everyday Math was then used as a transition into an exploration of the concept of equivalent fractions across multiple grade levels. Table groups were given a grade level of the Everyday Math Teachers Guide and asked to find two activities on equivalent fractions in the book they were given. “As a CPS leader,” stated one EM presenter, “you will be challenged to expand beyond your comfort level that you have in your particular grade level. So even if this is not your grade level, you can learn to understand how it all fits together.” Table groups worked together to look through the grade level books and to find two activities on equivalent fractions and learn them together.

The EM presenters then reassigned table groups so that there was one person from each of the grade level groups at each table. In this way, there was a participant who knew an equivalent fraction activity at kindergarten, one from first grade, etc. The new table groups then presented their activities to one another, beginning at kindergarten and working up through the grade levels, in order to see the manner in which the concept of equivalent fractions spiraled up through the material.

In this way, multiple goals, of developing mathematical knowledge, of increasing understanding of Everyday Math materials and of expanding teacher knowledge of a mathematical and curricular concept to multiple grade levels were explored in a single session.

Similarly, the April workshop had dual goals of developing understanding of the Everyday Math approach to geometry while also exploring the importance of communication skills in leadership. Participants worked through an activity about tessellations, having to work closely together to communicate to be successful in the activity.

The May session combined goals of increasing content knowledge around area, diameter and circumference with understanding the importance of and improving presentation skills. The EM presenters took the very interesting approach of demonstrating the importance of good presentation skills by introducing area formulas from sixth grade Everyday Math materials using *bad* presentation skills. The presenter looked at the floor, read formulas and had participants do workseets individually. She sat down as the individuals were working, not circulating to check in with participants. She corrected their responses as they debriefed and moved quickly through the activity without asking reflection questions.

Participants were then asked to discuss what they observed in the presentation. They then worked in groups to prepare a presentation to the group. Again, this presentation was not necessarily in their grade area of expertise. They presented to one another, critiquing presentations. Thus, in the May session, participants prepared presentations on the concept of diameter and circumference, presenting EM lessons from different grade levels to one another. In this single activity, participants were exposed to

four of the six subject areas bulleted above: mathematical content, Everyday Math materials, presentation skills and the multiple grades perspective.

The blending of multiple goals into math activities was the standard approach of Everyday Math leadership training. Training was deep and multi-faceted, engaging participants at a variety of levels.

Workshop Quality

Research suggests that high quality professional development encourages reflection on practice, provides the opportunity to apply new ideas, actively involves participants, promotes discussion of challenging intellectual ideas, engages participants as sources of expertise, presents participants with feedback on their practice, and provides ongoing follow-up (Smylie et al, 2001). This understanding of high quality professional development was built into the data collection for this evaluation. The observation protocol aimed to tap the extent to which the sessions exhibited evidence of high quality professional development.

Reflection on practice. The high percentage of time spent in small group and full group discussion (~68%) of practice supports the notion that the observed sessions allowed for reflection on teaching and leadership practices. The predominant approach to reflection in the observed sessions was for teachers to work through curriculum activities and/or solve curriculum problems together. The instructors asked small groups or the full group to reflect upon questions as they were working. The challenge of the leadership training was to blend mathematical content with an increased understanding of the Everyday Math approach in general that would allow for the support of multiple grade levels while also helping participants to develop leadership skills, like communication and presentation skills. The successful blending of these components made activities multi-purpose and deep.

Time for applying new ideas. The hands-on, group and individual activities were geared toward allowing participants to process new ideas by actually applying them. For example, participants actually ripped and cut paper to create fractions and then physically manipulated them to add, subtract and make equivalent fractions. Rather than simply standing up and demonstrating the EM lesson or providing a written description of the philosophy behind the curriculum, participants explored the activity and came to understand and describe the point of the lessons, demonstrating their new understandings of the mathematical concept, the Everyday Math approach to that concept, and the goals of the Everyday Math approach more generally.

Active participation through attendance, discussion, writing activities. The style of the three observed sessions was geared toward active involvement of participants. Presenter “talk” was generally minimal. If we remove the May session, where presenter “talk” is artificially inflated because presenters were *purposefully* talking excessively to demonstrate a bad presentation, we see that presenters talked only 8.4% and 2% of the other two sessions. This is only 10 minutes or less of a two-hour workshop. Presenter talk was used as a transition between activities, to invite workshop attendees to participate in discussions and to coordinate activities. Virtually every possible moment was used in active participation of those attending.

Discourse around challenging intellectual ideas. Participants were challenged by mathematical content, by learning in greater detail the Everyday Math approach, by being expected to learn concepts across multiple grade levels of the materials and through the giving and critiquing of one another’s presentations. Because these participants were selected because they had potential to be leaders in EM, there was little or no indication that there was any disagreement with the EM philosophy or that the concepts introduced challenged deep values or norms of participants. By selection, these participants were generally knowledgeable about EM and had high levels of buy-in into the philosophy. However, the training pushed these participants to expand and deepen their existing knowledge to new levels which was a challenge. As mentioned previously, EM presenters made it clear that being a leader means

“expanding beyond your own comfort level” in a grade level and suggested that “you may have been uncomfortable presenting material you just learned a little while ago but at times, this is what being a leader in CPS in EM means.” Workshops pushed participants to expand their existing knowledge. Interviewed participants appreciated this opportunity: “I think the best part of the EM leadership training was that it crossed over grade levels. It made me more comfortable in a whole school setting rather than just helping the other teachers in my grade.”

Participants are engaged as sources of knowledge and experience. Participants were invited to explore their ideas with one another and with the larger group in the ongoing small group and full group discussion and debriefing that occurred around each activity. “We consider these workshops an opportunity for you to learn from *one another*,” stated one EM presenter. This viewpoint was continually emphasized through the content, approach and organization of the workshops, which focused on individual and group exploration spurred through activities organized by presenters and inquiry questions to guide reflection.

One important note in this inquiry about the quality of the Leadership Training are some observed dynamics *between* participants that occurred because of differences in the roles of the individuals within Chicago Public Schools. Participants in the workshop were teachers, Specialists (teacher leaders at the school level, engaged in mentoring teachers in math materials), Coaches (Sub-district or area leaders engaged in assisting a group of schools in improving math instruction and Facilitators (district-level leaders engaged in guiding the overall development of the Chicago Math and Science Initiative). The mixing of these groups in Leadership training appeared to be important in two respects. In the first place, there were isolated cases where Coaches or Facilitators were seen being very directive in small group work, exercising the level of their position over Specialists and teachers. For example, one Coach/Facilitator was heard making comments on a presentation of a teacher by saying “It will never work if you do it that way, I have seen this a hundred times in the schools I work in.” Secondly, when arriving, teachers from the same school tended to sit together as did Coaches and Facilitators. Thus the variation in these positions was reinforced by seating. In several observed cases, these dynamics lessened the extent to which certain participants were engaged as sources of knowledge by other participants.

This being said, it should be noted that the approach of EM presenters did not reinforce the distinctions that participants made among themselves. In each of the three observed workshops, participants were regrouped so that table groups of attendees who knew one another were separated. Similarly, presenters did not differentiate between participants in the way they solicited their ideas. There was no evidence that participants were treated differently by EM presenters based on their role or status. However, the difference in status and the effect on some instances and work should be noted here as something to consistently keep in mind in this type of training.

Participants receive constructive feedback on their work. The session observed in May was especially focused on this goal. Participants designed and gave presentations to one another and those listening gave them feedback on their presentation. Participant interviews point to this area as one that they longed for in future work. They were highly complimentary of the training they received and about the skills of the EM presenters. They longed for more opportunities to apply what they were learning about EM materials in lessons and presentations that could be observed and critiqued by either other teachers or by EM staff.

Ongoing follow-up. The four sessions offered to the full set of leadership training participants provided them with long-term training that had a cumulative effect. Participants were able to build a community together and this was evident by the final session when participants were asked to design presentations together and to present to one another. Observations of groups showed that there were high levels of trust and the willingness of participants to criticize one another and to receive criticism showed the effect of developing a relationship over several months. This being said, this, as in receiving feedback about their work, is an area that participants longed for even more of. Some participants

interviewed who did not have the opportunity to offer professional development to teachers in the summer and fall of 2004 and who did not then get the opportunity to have the workshops they originally were offered on June 23-25th, were sad at the loss of this ongoing training and of the chance to apply the skills they had learned. “I really didn’t have an opportunity to apply the skills and knowledge from the workshop. I do think that in the future I will be a better leader from the training. But I have not had the opportunity yet,” one participant stated.

When asked about what would be ideal, they thought leadership training should span at least an entire year and include more opportunities for feedback on their teaching and work. More on this change of plans and schedule for the training is included in the analysis of impact in the concluding section.

Workshop Impact

The impact of the leadership training is considered with limited data. In the future, with additional resources, the impact of such training could be assessed in greater detail. Here, we rely on interviews with a subset of participants in the training. The tables below summarize the data collected to assess workshop impact.

Table Three: Interview Data Collected to Assess EM Leadership Training Impact

Participant Interviews	Participants chosen for summer/fall training	Participants not engaging in summer/fall training	Average number of the 4 sessions attended of interviewees (February-May)	In-Person Interviews	Written Reflections
13	6	7	3	5	8

Table Four: Interview Questions

How many Everyday Math Leadership training sessions did you attend?
How did you learn about the Everyday Math Leadership training?
Did the leadership training you received from Everyday Math increase your ability to function as a leader in the district or your school?
Please explain your answer. If you agree, describe the skills you gained. If you disagree, why was there no change?
Please rate the quality of the trainers you encountered in the Everyday Math leadership training.
Please comment on your response above. What were the strengths and weaknesses of the trainers?
Comment briefly on the content of the Everyday Math leadership training. Was it appropriate and useful? What suggestions do you have to improve the content or format of the leadership training?
What was the most positive aspect of your leadership training with Everyday Math?
What suggestions do you have to improve Everyday Math leadership training?

How many Everyday Math Leadership training sessions did you attend?

Respondents all had attended at least two of the sessions and 8 out of thirteen had attended all 4 of the two-hour monthly sessions held in February, March, April and May of 2004.

How did you learn about the Everyday Math Leadership training?

A little more than half of respondents (7) stated that they were invited to attend by Everyday Math trainers. Of the remaining six respondents, three stated that their principal informed them about the training, one said that she had learned about the training from a friend who had been invited by

Everyday Math staff, one was told about the training by the math Specialist at her school and one heard about it from a staff member at the Office of Math and Science.

Did the leadership training you received from Everyday Math increase your ability to function as a leader in the district or your school?

Respondents were given a four point scale of “strongly agree”, “agree”, “disagree” and “strongly disagree” to answer this question. Responses clustered around the center of the scale at “agree” and “disagree”. The difference in opinion seemed to divide between those respondents who had offered summer or fall workshops in 2004 or who were working on the 3rd edition of the Everyday Math materials, who agreed that the training had increased their level of leadership, and those whose training ended in May, who disagreed.

Please explain your answer. If you agree, describe the skills you gained. If you disagree, why was there no change?

Respondents who agreed that the EM leadership training had increased their ability to function as a leader pointed to three important gains: a) mathematical knowledge; b) presentation skills; and c) improvements in implementation ability with the Everyday Math materials. “The skills I gained helped me to increase my understandings of Everyday Math,” one respondent stated, “not only how to teach [my grade level] but also how to expand that knowledge to other teachers in any grade level.” “I can actually say I learned math,” stated another respondent. “Maybe I knew the concepts but I learned new ways to think about or share the concepts.” Another respondent, who was a presenter at the Everyday Math training sessions for CPS teachers in the summer of 2004, stated that the effect of the training did not really hit her until she had done training herself. “So I was standing there, leading an activity and it suddenly occurred to me, ‘hey, I think I sounded like [an Everyday Math staff member] when I asked that question.’ And I suddenly realized that I was becoming more of a leader because of that training.”

For the respondents who disagreed that the leadership training had increased their ability to function as a leader in the district or school, responses centered on two main reasons: a) the lack of an opportunity to apply the new skills; and b) the overlooking of the CPS context in workshop content. “I really didn’t have an opportunity to apply the skills and knowledge from the workshop. I do think that in the future I will be a better leader from the training. But I have not had the opportunity yet,” stated one respondent. “I feel like we learned to be leaders in a very abstract sense but not necessarily how to do it in the Chicago Public Schools’ context,” stated another. These two themes were common in the interviews of those who disagreed with the statement.

Please rate the quality of the trainers you encountered in the Everyday Math leadership training.

Respondents were given the options of “weak”, “adequate”, “strong”, and “excellent”. Eleven of the thirteen respondents marked or said the trainers were “excellent” and two responded that the trainers were “strong”.

Please comment on your response above. What were the strengths and weaknesses of the trainers?

Respondents were extremely positive about the Everyday Math staff members who led the leadership training. Those interviewed commented on the commitment, professionalism, knowledge and organization of the trainers. “Their sincerity and dedication were quite apparent,” one respondent stated. “Their level of professional commitment and knowledge were also very apparent,” she continued. “The strengths of the trainers were their ability to work with new people [and] their respect for education,” stated another participant. “They were always very organized,” another participant wrote.

Comment briefly on the content of the Everyday Math leadership training. Was it appropriate and useful? What suggestions do you have to improve the content or format of the leadership training?

The game playing and the cross-grade level nature of the content were the two aspects of content and format that participant most frequently praised. “For me, engaging in the game playing was an excellent way in which to learn concepts and to imagine what it would be like to present this to students or to train teachers,” commented one participant. “I think the best part of the content of the Everyday Math leadership training was that it crossed over grade levels,” stated another participant. “It made me more comfortable in a whole school setting rather than just helping teachers in my grade.”

Participants frequently also commented when asked this question about the flexibility of Everyday Math trainers. “[They were] willing to listen to problems or suggestions that workshop attendees have,” one respondent stated, “They changed the content and molded it to our needs.”

Here, as in the questions about the trainers themselves, several respondents commented that they wished the training had been more geared toward situating the content and material within the context of Chicago Public Schools. “The content was interesting and useful,” one respondent commented, “However, I don’t believe implementing this in a classroom in Chicago is like implementing it in the suburbs so I wish we had situated everything more in *our* context.”

What was the most positive aspect of your leadership training with Everyday Math?

Here, respondents talked about the trainers, the time to work with peers and the contacts made in the workshops. “The most positive aspect of the leadership training were the trainers...They all had such knowledge and insight...,” stated one respondent. “The peer exchanges were very useful and the sense of community made it easier to take risks,” another respondent stated. “The contacts I made have given me a new role training teachers in CPS and I still exchange ideas and materials with other teachers I met,” stated a respondent.

What suggestions do you have to improve Everyday Math leadership training?

Suggestions generally focused on a desire for more direct feedback on practice and more applied training in the school or classroom setting. “Now that I have gotten the chance to learn about the materials and improve my understanding of how to teach and present, I wish someone could come to a PD session I present and observe me,” stated one respondent. “It would have been nice to extend the training for a day or two in a school setting where we are in a real classroom with real students or real teachers,” commented another participant.

Conclusions and Recommendations

The remaining sections of this data brief provide summary and concluding remarks about Everyday Math leadership training workshop content, quality and impact. Each of these three areas is considered in turn, summarizing findings and making recommendations for future work. Many of the recommendations are suggestions for the expansion of this type of training in future work. It is recognized by evaluators that the leadership training had limited time and funding during 2004, due to a scaled back grant award to support it. Thus, these suggestions largely focus on considerations in future work with more available time and funding.

Workshop Format and Content Considered

The format of Everyday Math leadership training workshops was largely devoted to small group work and full group debriefing and discussion. Trainer presentations were limited to short spurts of

introductions of and transitions between activities and the drawing together of lessons learned as the session progressed. Content of the session focused on the introduction of mathematical concepts that demonstrated Everyday Math material approach and philosophy. Layered upon these activities were opportunities for participants to consider content across grades, to practice their presentation and communication skills and to improve their leadership skills. The Everyday Math staff members were impressive in their ability to layer these multiple goals, of building math content knowledge, of exposure to Everyday Math materials and philosophy and of developing leadership skills into single activities. This fact made the workshop sessions very cohesive and demonstrated well the ways in which these various, multi-levelled goals were related.

Participants were generally highly complimentary of the format and content of Everyday Math leadership training. There were two main suggestions of how to improve the content and format. In the first place, respondents nearly universally thought that training should ideally span an entire academic year. "Starting at the beginning of the year would have got us thinking about being a leader right away," stated one participant. "I felt like the learning in the workshop gained momentum at about session three that would have made a few more months really beneficial," stated another. Secondly, participants were concerned about finding ways to integrate the Chicago Public Schools' context into the workshops. "I thought that we started out the first sessions really focused on what being a leader in CPS meant," stated one respondent. "But I worried that it became a sort of 'one size fits all' instead of really applying what we were learning to *our* school, *our* district." Participants wanted to have the time to make more explicit connections between lessons learned and their meaning in their own school or district context.

Recommendation: Future Everyday Math leadership training could be expanded to monthly sessions throughout an academic year. An additional hour could be added to each session and be used to make connections between lessons learned and the specific contextual details and challenges of Chicago Public Schools.

Workshop Quality Considered

The Everyday Math leadership training exhibited many of the components of high quality professional development. Small group work and full group discussion allowed for reflection on practice. Hands-on activities allowed participants to actively engage and apply new ideas. Workshops pushed participants to challenge themselves to expand their knowledge outside of their grade level to become more competent in the Everyday Math materials.

Participants suggested that they would benefit from expanding workshops into the school and professional development training settings. They were complimentary of the format, content and trainers of the workshops, but wanted the lessons they learned applied contextually, in their school setting. Participants wanted to have more formalized feedback as they applied what they had learned in leadership training to teach children or other teachers, having peers or Everyday Math staff to observe and critique their work.

For the group of teachers who were chosen to offer professional development in the summer and fall of 2004, many had suggestions for future training or support that would be useful. Several commented that it would be useful to have training on how to deal with the "overly enthusiastic" or "overly negative" teacher in a workshop to insure that a single voice did not dominate the session. Having training on the nuts and bolts of offering workshops was said to be something that would be of assistance in the future.

Similarly, those interviewed who offered summer and fall training thought it would be helpful to have a more formalized way to debrief and problem solve with others offering workshops. Slating debriefing time within a workshop to "check in" over lunch, or an e-mail contact system were suggested.

Recommendation: Future Everyday Math leadership training should involve more opportunities for participants to apply what they have learned in context. This could be accomplished through creating teams of participants to observe one another teaching or leading professional development and then coming back to the larger group to talk about what they had seen and learned. Extending professional development opportunities to outside of the workshop setting would allow participants to have constructive feedback on their work and ongoing follow-up, both elements of high quality professional development. Also, additional opportunities for participants to prepare presentations in leadership training workshops and present to one another in that context may be another way to accomplish this goal. In addition, training for those who will lead professional development workshops can address more directly training challenges like the “overly enthusiastic” or “overly negative” teacher in a session.

Workshop Impact Considered

The 13 participants in the Everyday Math leadership sessions who were asked about their experiences were generally highly positive about the training they received. About half of respondents stated that the training had increased their ability to function as leaders in mathematics in the district or in their school. Those who responded positively to this question talked about their increases in mathematical knowledge, presentation skills and improvement in their ability to implement Everyday Math. Respondents were positive about the trainers who led the workshops, about the game playing and cross-grade level approaches and the ability to network with peers and with the Everyday Math staff.

Another possible way to comment on the impact of the Everyday Math leadership training is to consider the staffing of the teacher training sessions in summer and fall of 2004. In the summer of 2004, Everyday Math had three professional development workshops for Chicago Public Schools’ teachers. Twenty-four trainers were used to staff these training sessions: 13 were Chicago Public Schools’ employees who had taken leadership training during 2004; 11 were from other districts. In the fall of 2004, Everyday Math offered two “make-up” sessions for teachers who missed the summer training. Fourteen trainers were hired for these workshops. Thirteen of them were participants from the Everyday Math leadership training while only one was from outside of the district. The building of capacity of these leaders has its foundation in the Everyday Math leadership training. These trainers are a product of the training that clearly did help to expand the number of Chicago Public Schools’ employees available to lead the increasing number of sessions needed for Everyday Math users in the district.

Two changes in the offering of the Everyday Math leadership training should be noted as having an important influence on workshop impact. In the first place, Everyday Math staff originally budgeted and planned for a smaller group of leaders, approximately twenty-five. The participants were to be only those chosen and invited by Everyday Math staff. The “volunteering” of other teachers, Specialists and Coaches who were then allowed to join the leadership training widened the pool of participants, making the group much larger. The effect of this is difficult to determine. On the one hand, the widening of the pool could have possibly brought in additional talented participants, allowing Everyday Math staff to then have a choice of the most promising presenters to lead summer and fall training. On the other hand, increasing the number of “voluntary” participants may have decreased the overall quality of participants in Everyday Math materials and approaches, slowing down progress of the group as a whole. Although it is difficult to determine the effect exactly, or its positive or negative nature, it is likely that the increase in the size of the group and the differences in the manner in which participants came to join the group may have been a significant factor.

A second possible influence on workshop impact was the canceling of the three day-long sessions in June for leadership training. Logistical details made these workshops impossible. As a result, Everyday Math staff opted to offer them as planning and work days for all of those leaders who would be offering summer professional development to teachers. As a result, a much smaller group of leaders attended

these sessions than was originally planned. For those not participating, this loss of the training was seen as a negative. “I was sad to see leadership training end and to not have those days in June to gain a little more,” one participant noted. “I would hope that in the future, [Everyday Math] would plan to have those days for the whole group, whether we were teaching summer workshops or not.” However, those who taught summer workshops were thankful to have the smaller sessions that were more focused on the nuts and bolts of leading the summer workshops. “For me, it turned out better than I could have hoped to have those days to plan, problem-solve and prepare,” one presenter stated. “In fact, I would say that in future leadership training, planning these days in for those giving workshops is a good idea.”

These two changes in the Everyday Math leadership training plans are difficult to assess as positive or negative with the data collected. They are simply noted here as variables that influenced the impact of the workshops. It is likely that these two factors were positive and negative for different participants or for the Everyday Math staff presenting at different times.

Recommendation: Early indications suggest that leadership training had a positive impact on both participants and on the ability of Everyday Math to use Chicago Public Schools’ teachers to lead professional development in the summer and fall of 2004. Other indicators of impact, however, are more difficult to discern. Assessment of the impact of leadership training would benefit from additional data collection and analysis that considers: a) the quality of the training of teachers who have taken leadership training, in comparison with experienced Everyday Math staff and in comparison with trainers offering professional development who have not received such training; b) the impact of having a hand-selected or self-selected leadership training population; c) the impact of separating/offering different training to those selected from leadership training to actually provide professional development from teachers. Is this positive or negative and what different types of training do these participants need?