

**External Evaluation of the OMS Professional Development Leader (PDL) Program:
Comprehensive Final Report**

A Report for the CPS Office of Math and Science and Department of Program Evaluation
Prepared by the PRAIRIE Group, UIC College of Education

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¹ Authors produced this report collaboratively and share responsibility for its contents. The conclusions drawn in this report reflect the viewpoints of the authors. While there are many potential viewpoints, these reflect a systematic analysis of data by external evaluators. The hope is that these findings can facilitate improvement of this and related programs through open discussion and consideration of data-driven understandings. For further information, contact Janise Hurtig, jhurtig@uic.edu, 312-413-3367.

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EXECUTIVE SUMMARY

The UIC PRAIRIE Group served as external evaluator for the CPS Professional Development Leaders (PDL) program for the 2007-08 and 2008-09 school years. This second year of work combined technical support in program development (Section A of the report) with external evaluation of the PDL program (Section B of the report).

Section A: Program Design and Development. PRAIRIE evaluators met with PDL program planners five times during the program year to engage in technical support or “developmental evaluation.” This work aimed to make explicit the program logic (its theory of change), identify and refine key program activities and outcomes, develop mechanisms and tools for assessing progress toward outcomes, increase consistency in expectations for the PDL role across Math and Science, and clarify the mechanisms for monitoring PDLs’ completion of certification. Technical support resulted in the production of a one-page PDL Program “Theory of Change” Logic Model with accompanying program planning worksheets, worksheets for revising PDL Blueprints, and feedback on existing program reflection tools, all of which are included in the report.

Program “Theory of Change” Logic Model and Planning Worksheets: Over the program year a PDL Program Logic Model was developed into two complementary documents: a one-page Logic Model depicting the program’s theory of change; and a series of program implementation worksheets elaborating on the program’s activities, expected outcomes, and documentation and assessment processes. These are meant to be “living documents” that are meant to be continually modified as the program undergoes development and refinement.

PDL Program Blueprints: Evaluators worked with planners on modifying the PDL Program Blueprints to produce documents that monitored participating teachers’ progress toward becoming PDLs. A modified Blueprint was developed that included indicators and evidence of goal completion. Discussion as to what the Blueprint goals should describe led planners to identify different views as to the purpose of the Blueprint, including whether it was meant to represent guidelines for becoming certified as a PDL, or to provide a template for PDLs’ ongoing professional trajectory. Planners took this question back to their respective teams and managers, and development of the Blueprints was put on hold for the remainder of the program year.

PDL Program Reflection and Evaluation Tools: Work on PDL program reflection and assessment tools was stymied by lack of time, a challenge that was exacerbated beginning in February 2009 as the District reorganization and performance measurement processes placed extra demands on planners. This section provides a set of guidelines the evaluators propose PDL planners use to review, modify, and develop assessment and reflection tools. Application of the guidelines to two existing program tools (the Mathematics PDL Academy Session Evaluation Form and the CMSI [Science] PDL Observation Form) is included to illustrate or model that process.

Section B: PDL Program External Evaluation. This section focuses primarily on its three key components: recruitment, PDL Academy, and professional development delivery. Reporting on program components is followed by a discussion of five cross-cutting themes: standardization of the PDL program, fidelity of implementation versus faithfulness to purpose, differentiation of program roles and role supports, use of continuous feedback, and sustainability of the PDL program. Findings, analysis, and reflection questions address program coherence, successes and challenges, and consider the relationship between the program’s logic, short-term goals, and actual implementation.

Methodology: Findings and analysis are based on notes from meetings and technical support sessions with PDL program planners; review of program documents; interviews with program stakeholders; observation of Math and Science PDL Academies and summer PD delivery followed by debriefs with PDLs; and focus groups with a sample of math and science PDLs. Data were reviewed in light of key program components and then coded and analyzed according to component-specific themes which were determined both by explicit goals and by emergent issues relevant to quality and consistency of program implementation. The entire data set was then coded and analyzed in relation to the five cross-cutting programmatic themes.

Findings and Analysis

a. Program long-term and short-term goals: Program stakeholders articulated a long-term program goal that specified the importance of developing *and* sustaining a pool of *high-quality* PDLs who provide *locally contextualized* professional development. Short-term goals demonstrate logical coherence with the long-term goal and include: increasing number of recruits; further standardization across Math and Science; improved retention of PDLs; increasing supports for PDLs; improving program monitoring and assessment processes; increasing PDL program’s autonomy from universities and vendors. Consistency in stakeholders’ identification of goals indicates a shared understanding of the program’s purpose. Progress toward most goals was identified, with major challenges being limits on time and personnel resources.

b. Key program components:

Recruitment of PDLs: Recruitment goals included standardizing the process, increasing the number of recruits, improving the distribution of recruits, recruiting effectively for retention, and documenting the recruitment process. Stakeholders identified

the following areas of improvement: 1) effort was made to target District Areas and schools previously underrepresented in the PDL program and to fill needs across curricula and grade levels; 2) the recruitment process was further standardized across Math and Science; 3) PDL applications were more systematically scrutinized than last year. An area of challenge was that facilitators were unable to uniformly screen all potential PDL Academy invitees. For instance, not all invitees were observed teaching in their classrooms. Documentation of the recruitment process was also uneven. It was recognized that more systematic documentation will be necessary in order to determine effectiveness of recruitment vis-à-vis retention.

PDL Academy: Academy goals included consistent attendance; greater and differentiated participation of experienced PDLs; increased knowledge of content, pedagogy, adult learning, and the PDL role; and increases in leadership and PD facilitation skills. Math and Science Academies involved experienced PDLs in planning and workshop facilitation. Some workshops combined and others separated new and experienced PDLs. Reflection time regularly occurred, using written reflections and rubrics by which participants assessed their own and each others' mini-presentations. Participants reported increased understanding of the PDL role and confidence in presenting PD, but no changes in content or pedagogical knowledge. PDLs generally appreciated the adult learning presentations, although these did not model best practices for adult learning or apply directly to the PDLs' role or context. PDLs desire more understanding of adult learning; one instructional practice they identified was role-switching. The PDL Academy contributed to PDLs' confidence, expertise, and leadership, in part by providing PDLs with a "professional community."

Delivery of Professional Development: Stakeholders' goals for PD delivery focused on PDLs providing high-quality PD; co-presenting effectively, engaging teachers in learning about materials, content and pedagogy; following the outlines provided; and reflecting on their own practices. PDLs' goals were to make teachers comfortable with the curricula and expose them to the materials. All PDLs we observed or interviewed engaged in pre-workshop planning. PDLs had varying ideas about PDL roles during co-presenting, and co-presenting was observed to take on a range of configurations, with a mentor/mentee relationship predominating. PDLs were observed incorporating teachers' instruction and management knowledge around more than their content knowledge. Co-presenters varied in how and how much they engaged with teachers. In all workshops, PDLs engaged in role-switching from teacher modeling instruction to facilitator talking to teachers. PDLs identified as key supports oversight and materials provision, the professional community of PDLs and planners, and the reflection process.

c. Cross-cutting themes:

Standardization of the PDL program within and across Math and Science: As a result of mutual borrowing, Math and Science have moved toward standardization. The basic format, content, and logic of both sides are comparable. Math and Science Academies and PD delivery models have some differences in structure, content, and supports for PDLs. These areas of variability, as well as variations in key activities like recruitment, are not necessarily problematic and may be inevitable. This year, the issue of standardization *within* Math across grade levels also arose.

Fidelity of implementation versus faithfulness to purpose: During the Academy and PD delivery, evaluators identified conflicting messages about the relative importance of implementing with fidelity to the process versus implementing with fidelity to the purpose on the other. This inconsistency was manifest in messages about how PDLs should use outlines or matrices to plan and deliver PD, as well as messages about how teachers should approach the CMSI curricular programs and materials.

Use of continuous feedback: While stakeholders consistently identified the importance of internal assessment and reflection as key to program improvement, continuous feedback was not consistently treated as a priority during the Academies or PD workshops. Informal reflection among program planners occurred sporadically due to time and scheduling constraints. It will be important to consider how to better prioritize these processes in the general scheme of PDL activities

Differentiation of program roles and role supports: The PDL role this year was broadly comparable to last year. Notable is an expansion of "leadership." Experienced PDLs are offered more opportunities to participate in Academy planning, presentation, and support of new PDLs; and facilitators are involved more in planning. Ongoing development and redefinition of roles raises issues around adequacy of supports and the balance between program standardization and flexibility.

Sustainability of the PDL program: For most stakeholders, program sustainability depends on retaining active PDLs. Planners and PDLs concurred that fostering professional community contributed to investment in the program. Additional leadership activities may or may not contribute to retaining PDLs. While some PDLs felt additional responsibilities connected them to their role, others described additional activities as beyond what they expected to do with the program. The other programmatic component or role that was identified as key to the program's sustainability was the PDL facilitators' role as program capacity builders. The significance of this role signals the programmatic importance of defining and supporting that role.

PROGRAM AND REPORT OVERVIEW

The UIC PRAIRIE Group served as an external evaluator for the CPS Professional Development Leaders (PDL) program for the 2008-09 school year.² The broad goal of the PDL program is to develop and sustain a pool of qualified teacher leaders who can provide leadership in the Chicago Public Schools in mathematics and science and provide high-quality, district-wide, in-context professional development for the instructional materials supported by the Chicago Math and Science Initiative (CMSI).

This is the second year in which the PRAIRIE Group has served as external evaluator of the PDL program, with the aim of providing the PDL program planning team, OMS Math and Science managers, the OMS director, and other key stakeholders with in-depth, nuanced, and timely feedback regarding both the overall framework and specific facets of the PDL program. Key program areas addressed by this year's evaluation include:

1. PDL program development, coherence, and feasibility
2. Standardization of the PDL role and program across Math and Science
3. Role development of PDLs and PDL program planners
4. Qualities of PDL training, delivery, and supports
5. Sustainability of the PDL program

This year's evaluation work combined technical support in program development -- often referred to as "program theory" or "developmental" evaluation -- with external evaluation of the PDL Academy and district-wide professional development delivery by PDLs. The integration of these two kinds of formative evaluation is particularly suited to work with an emerging program or initiative that is engaged in a deliberate process of reflecting on, modifying, and enhancing its logical framework in relation to its processes and intended outcomes, as is the case with the OMS's PDL program.³

This comprehensive final report is divided into two sections that mirror these two kinds of evaluation work. Section A, "Program Design and Development," addresses the five program areas listed above by reporting on progress made through the "developmental evaluation" work around the PDL program's "theory of change" logic model, PDL program Blueprints for Math and Science, and PDL program documentation, reflection, and assessment tools.

Section B, "Program External Evaluation," addresses the five program areas listed above, by presenting findings and analysis of data collected during this year's external program evaluation. The bulk of the section examines the three key program components of PDL recruitment, PDL Academy, and PD Delivery. Reporting on program components is followed by a discussion of four cross-cutting themes: clarity and coherence of program implementation and message; program roles and supports, including the development of professional community; standardization of the PDL program across Math and Science; and sustainability of the PDL program.

² This evaluation of the PDL program represents one part of a series of external evaluation studies conducted over the 2008-09 school year by the PRAIRIE group in order to examine the systemic educational reform underway as part of the Chicago Math and Science Initiative (CMSI) supported by the CPS Office of Math and Science (OMS). The aim of these studies is to provide OMS and other key stakeholders with a deep, nuanced understanding of the processes and outcomes of the CMSI. These evaluation studies are based on rigorous data collection and analysis that are conducted in such a way as to provide timely and useful feedback to the audiences including the leadership team of the Office of Math and Science (OMS), the Chief Educational Officer of CPS, and the CPS Department of Program Evaluation, as decisions are made about the allocation of resources in the effort to continually improve math and science teaching and learning.

³ For a discussion of developmental evaluation, see Michael Quinn Patton, *Utilization-Focused Evaluation: the New Century Text*, Third Edition (Sage Publications), 1996. For discussion of program theory evaluation, see the *New Directions in Evaluation* "Special Issue: Program Theory in Evaluation: Challenges and Opportunities," Patricia J. Rogers, et al. eds. 2000.

SECTION A: PROGRAM DESIGN AND DEVELOPMENT

Section Overview

Between December 2008 and July 2009, PRAIRIE evaluators had five working meetings with the PDL planning team. The original goal of these meetings was to produce a series of program materials, as follows:

1. *program “theory of change” logic model and planning worksheets*: a schematic representation of the PDL program’s theory of change that integrates a causal flow chart with descriptive text, accompanied by worksheets that elaborate on the logic model, detailing program activities, outcomes, and means of assessment
2. *revised PDL Blueprints (previously called “Action Plans”)*: a planning map for prospective PDLs, laying out the criteria for becoming certified as a PDL
3. *revised PDL program tools supporting documentation, reflection, and assessment*: these tools would be based in existing program tools, modified to effectively address program activities and outcomes described in the program logic model and worksheets

The agenda for the first meeting was to review and discuss the final evaluation report of October 2008, in light of program planning for the 2008-09 program year. This meeting was attended by six Math facilitators and one Science facilitator involved in PDL program planning, as well as the OMS Math and Science managers. Subsequent to the initial meeting, PRAIRIE evaluators held four technical support sessions with the leads on the PDL planning team – two Math facilitators and one Science facilitator. The purpose of these sessions was for the PRAIRIE evaluators to provide frameworks, facilitate discussion, and support the program planners in the development of a logic model for the PDL program, the refinement and standardization of the Professional Development Leaders Blueprints for Math and Science, and the development of tools and processes for internal documentation and assessment of the PDL program. An additional meeting, attended by the Math and Science managers in addition to the PDL planners, was convened to review the content of the May 15, 2009 “External Evaluation Mid-Term Progress Report” (referred to hereafter as Progress Report).

By the end of the 2008-09 program year, planners and evaluators were able to complete a working version of a logic model and program planning worksheets. Subsection A.1 includes a summary description of the logic modeling process and logic model content, followed by the most recent version of the one-page PDL program “theory of change” logic model. The elaboration of the logic model in the form of planning worksheets is attached to this report as Appendix A. The reader will want to refer to those worksheets, not only to enrich their understanding of the program logic model, but also in relation to the discussion provided in Section A.3 regarding revision of program reflection and assessment tools.

Revisions to the other two sets of PDL program materials were not completed. As discussed in Subsection A.2 below, the PDL planning team’s efforts to standardize Math and Science Blueprint components led to the recognition that there were differing perspectives regarding the purpose of the Blueprint as a program development tool. As a result, Blueprint development was postponed in April 2009. Consensus regarding the purpose and use of the Blueprint has yet to be resolved by program planners. Subsection A.2 provides a summary of discussions with program planners regarding revision of the PDL program Blueprints, and includes a template of the current blueprint revision document.

Collaborative work on PDL program reflection and assessment tools was stymied by sheer lack of time. As PDL planners and other stakeholders emphasized repeatedly during interviews and planning meetings, limitations on their time have posed a major challenge to program development. This challenge was exacerbated beginning in February 2009, as the District began to undergo processes of reorganization and Offices began to dedicate considerable time to the development of program management documents and tools. PDL program planners and OMS leadership were required to spend considerable time on these organizational efforts, further limiting their ability to confer on the revision of PDL program materials. In order to support that revision process for the coming

program year, in Subsection A.3 the evaluators provide feedback on a sample of PDL program tools, focusing on the creation and use of tools that are consistent with the program’s logic model and planning worksheets.

A.1. Development of a PDL Program Logic Model and Worksheets

Logic Modeling: Logic modeling can be summarized as a way of making *explicit* what is often *implicit* about a program: what the desired outcomes are, what key activities are being implemented to lead to those outcomes, why it is expected that the program’s key activities will lead to those outcomes, and how the program takes into consideration the external factors that facilitate or constrain its implementation. Logic models are also useful in helping program planners identify the assumptions or rationales that guide their program’s logic, and to detect areas where there might be gaps or leaps in logic.

Logic models can be used to represent programs to varying degrees of abstraction or specificity. Minimally elaborated logic models can serve as diagrams of a program’s “theory of change,” illustrating both *how* and *why* the program expects to move towards its goals. Theory of change logic models are often created at the planning stages of a program or initiative, but are also useful tools for programs seeking to enhance its coherence, as is the case of the PDL Program. More detailed logic models that incorporate key activities, a sequence of short to long-term outcomes (an “outcome chain”), and even feedback loops incorporating monitoring and assessment practices, are particularly useful for program planners who are developing, implementing, and/or overseeing a program that is already in place.

Moreover, the kind of logic model that best serves a program can change over time. Logic models are often described as “living documents” that should be modified as a program develops, adapting to changes in short-term goals, key activities, and the program development needs of planners. Below we describe the process informing development of the current logic model and worksheets, which can be thought of as a hybrid document incorporating aspects of a “theory of change” logic model and a “program planning” logic model.

The PDL Program Logic Model: The one-page PDL Program “Theory of Change” Logic Model presented below is the result of an iterative dialogue between the PDL program planners and the evaluators. In an initial working session, the evaluators provided the planners with a barebones logic model template of Program Goals, Key Activities, and Desired Outcomes. That first logic model template also indicated a process of documentation and assessment of activities and outcomes, in order to include the diagramming of a feedback loop that would inform the program’s implementation and theory of change. During that session, the evaluators solicited input from the planners regarding key components of the program’s logic. Because the program planners were in the throes of recruiting teachers to the PDL Academy at the time, the discussion focused primarily on that key activity, i.e. *recruitment*. In the process, it became clear that decisions about how recruitment was proceeding responded to certain *external factors*: contexts and conditions beyond the confines of the program, and the availability of resources. At a more conceptual level, recruitment decisions were related to broader *rationales or assumptions* that guided the program planners’ thinking about how PDL program activities, if carried out as intended, would lead to the desired results.

In the second working session, the evaluators provided the planning team with a revised logic model template for the program that incorporated these various elements of the program’s logic. (This second version of the logic model is included in the Progress Report.) The revised logic model was designed to represent key programmatic components of the PDL program, as well as the key external factors that the PDL planners (and OMS more generally) take into account in planning and implementing the PDL program.

Extensive discussion around the recruitment process made it clear that there were specific desired outcomes for recruitment, as well as for each of the other key activities, and that each activity was assessed in distinct ways. In addition, the model aimed to represent the program’s complex causal relations. For instance, the outcomes of each key PDL program component were expected to influence the activities and outcomes of the next component, given that they occur sequentially over the course of the program year (for instance, recruitment outcomes affect the PDL Academy, the outcomes of which affect PD provision). But it was also recognized that each key program

component was meant to contribute directly to the desired short-term goals for the program. Finally, the second version of the logic model constituted an attempt to incorporate the programmatic significance of *retention of PDLs* by representing “retention” as a key component in its own right.

Discussion that took place in working meetings with program planners and OMS leadership subsequent to developing the logic model presented in the Progress Report, made it clear that additional modifications to the PDL program logic model were needed to better represent the logic and implementation of the PDL program. Two major modifications were made in response to those discussions. First, it became apparent that “retention” was not best thought of as a key program component comparable to recruitment, PDL Academy, and PD delivery, because each of those components included activities that were meant to contribute to retention. Moreover, retention of PDLs, strictly speaking, is a desired program outcome and not a key program component. Thus, the revised version of the PDL logic model represents “retention” as one of several mid-term outcomes. This new understanding of the role of retention in the PDL program’s theory of change required the introduction of a “mid-term outcomes” cell into the logic model, which the evaluators believe increases the clarity of the logic model.

The second major modification pertains to the representation of the documentation and review processes within the logic model. In the Progress Report version of the logic model, documentation and review were contained within each key program component, suggesting that documentation, review, and assessment of each program component were disconnected logically or causally from the other components. However, review of stakeholder interviews and ongoing discussion with program planners over the course of the program year made it clear that evidence gathered about each key component would be useful in rethinking all of the components. For example, attendance data for the PDL Academy could be useful in thinking not only about the Academy itself, but about recruitment and screening as well.

The logic model presented below aims to incorporate these new understandings of the PDL program’s theory of change, including this more complex feedback loop for the PDL program. The model includes summary statements for each of the logic model cells. The content of the cells draws on discussion with program planners, the content of eight stakeholder interviews, as well as observations of the PDL Academy, summer PD delivery, and formal discussions with a sample of PDLs. The purpose of these statements is to provide a “snapshot” of the program in a way that captures its underlying logic, or theory of change, in relation to plans for implementation and assessment. We emphasize that the logic model represents the program as currently envisioned according to the current logic. It thus approximates but does not precisely represent what actually took place during the 2008-09 program year. For instance, the logic model identifies “classroom observation” as a key recruitment activity. However, as discussed in Section B.2 of this report, not all potential PDLs were observed in their classrooms prior to recruitment. By contrast, all prospective PDLs were required to submit an application. These kinds of consistencies and discrepancies between facets of the model and what actually took place is one of the issues addressed in Section B of this report.

PDL Program Theory of Change Logic Model --September 2009

Program Problem or Need
 Need for high-quality PD in CMSI-supported materials to increasing numbers of teachers
 Need to support effective math and science teachers in becoming and remaining teacher leaders

Long-Term Program Goal:
 Develop and sustain a cadre of qualified teacher leaders who provide mathematics and science leadership in the Chicago Public Schools and facilitate high-quality district-wide CMSI professional development

Contexts and Conditions

Assumptions/Rationales
 PDLs are effective adult educators
 Teaching adults is different from teaching kids
 PDLs' local experience is valuable
 PDLs have leadership qualities

External Factors
 More schools/teachers use CMSI curricula
 CPS budget cuts
 Competing demands on teacher leaders
 Math/Science curricula not mandated
 CPS bureaucracy
 Teachers' limited time out of classroom.

Resources
 OMS personnel
 CMSI curricular materials
 Space for PDLA & PD
 Books, articles, reprints
 Computers & internet access

Key Program Components – Activities and Outcomes

Recruitment

Key Activities
 Solicit recommendations; observe teachers in classrooms; solicit applications; review and rate applications; select prospective PDLs

Yearly (short-term) outcomes
 Meet target numbers; meet distribution goals; convey consistent message about PDL program and PDLs' role; all recruits meet requirements for participation in PDL-A and program

Documentation & Review: completed application materials; completed screening matrices; input from recruits and recommenders into process; recruits' expressed understanding of message

PDL Academy

Key Activities
 Preparation; PDLs participate in workshop sessions addressing how to co-facilitate high-quality PD; PDLs present mini-lessons; PDLs prepare action plans (matrices; outlines) plans are reviewed by facilitators; experienced PDLs engage in leadership roles.

Yearly (short-term) outcomes
 PDLs have greater understanding of curricular content, pedagogy, adult learning, CMSI message; increased leadership skills; confidence and familiarity with materials to co-facilitate PD; coherence between Academy goals and workshop content; PDL professional community

Documentation & Review: program management data; workshop agendas; participant evaluations; written reflections by presenters; completed action plans.

PD Delivery

Key Activities
 Planners and facilitators arrange for PD provision, including materials needed. New and experienced PDLs co-plan and provide (or observe) high quality PD workshops; PDLs co-reflect on summer and year-long PD; supervisors provide feedback to PDLs on PD provided

Yearly (short-term) outcomes
 Teachers gain exposure, comfort with and understanding of CMSI curricula; PDLs improve PD delivery, teaching and leadership skills; subset of teachers become interested in becoming PDLs.

Documentation & Review: PDLs' PD lesson plans; PD schedules; completed reflection (self-assessment) forms; facilitators' assessments; participant evaluations

Mid-term Outcomes

- Retention of effective experienced PDLs
- Expansion of PDL roles and activities
- Ongoing recruitment of effective math and science teachers into PDL program
- Ongoing improvements in quality of professional development provided
- Increased standardization of activities within and across math and science
- Effective use of documentation for program improvements



Discussion about the periodicity of recruitment efforts that was initiated during the June 2009 meeting and continued during the July 2009 meeting led to the recognition that the formal PDL training program represented by the current logic model needed to be understood in relation to a range of recruitment and training efforts undertaken by the OMS. It was also noted that this larger professional development training and delivery context included the process by which the pool of teachers trained to become PDLs was also drawn upon for other OMS efforts. The outcome of these discussions was to formalize a distinction between the PDL program as a self-contained, sequentially organized set of activities aimed at preparing teachers to provide district-wide summer and year-long PD, and the broader range of recruitment, training, and delivery of professional development that the OMS provides (for instance, the After-School Science Club, or Area-based professional development). Thus, the PDL program can be understood as one facet of the OMS's provision of professional development that is related to the other facets but programmatically distinguishable in terms of its activities and desired outcomes.

The PDL Program Planning Worksheets: As noted above, logic modeling documents are most useful when they address the program's specific stage of development and implementation. The one-page logic model represents the PDL program as a coherent and logical sequence of activities leading to long-term program goals. As such, it is a tool that can be used by program planners and OMS leadership in their efforts to increase the PDL program's internal coherence and make improvements based in response to evidence and reflective feedback in an ever-changing world.

Because the PDL program is an existing, functioning program, it is also important to elaborate facets of the program approximating a work plan. Over the year, the evaluators worked with program planners to complete a series of planning worksheets to accompany the one-page logic model. These worksheets include statements of key activities and outcomes that are observable or measurable, realistic, and time-related,⁴ so that the logic model can contribute to the development of effective internal and external program review, assessment, and revision. Appendix B attached to this report includes both the working version of the theory of change logic model followed by planning worksheets, preceded by a "cover page" orienting the reader to the two components of the document.

A.2. PDL Program Blueprints

During the 2007-08 program year, Math and Science PDL program planners worked on standardizing the documents they had been using to lay out the criteria for completion of the PDL program, referred to as the PDL Program Blueprints or the "Professional Development Leadership Plan." Efforts at standardization focused on the modification of document name and column headings to best reflect the content of the columns and create consistency across Math and Science. (As was described in last year's Final Evaluation Report,⁵ there are differences in the number of goals, the minimum hours required to complete certain goals, as well as sample activities for and evidence of completion of the goals.) As discussed later in this report (Section B), those differences will be revisited by the PDL planners in the future and decisions will be made as to whether they should be reconciled or remain as they are.

Despite some differences in the content of the Math and Science PDL Blueprints, both Math and Science planners agreed that modifications were needed in order to produce a document that was more logical and more useful as a means of monitoring participating teachers' progress toward becoming PDLs. In this subsection we describe steps taken toward the refinement of the Math and Science PDL Blueprints during the technical support sessions, and present a model of the "working version" of the PDL Math and Science Blueprints.

During the first meeting with OMS facilitators and managers, discussion around the distinction between PDLs being *expected* to provide district wide professional development and being *prepared* or *qualified* to provide Area level professional development led to the group's recognition that it would be important to be able to determine whether a certified PDL did in fact have such qualifications. The group's review of the 2007-08 evaluation report's

⁴ Such statements are often referred to in the program development and evaluation literature as "SMART" objectives.

⁵ "External Evaluation of the OMS Professional Development Leaders Program, 2007-08," October 24, 2008.

analysis of the blueprints led them to further identify that it was not possible to determine whether the PDL recruits had accomplished the stipulated learning goals simply by completion of activities and minimal hourly requirements. Clear indicators of successful completion of goals were needed. This realization led to the decision to modify the PDL Math and Science Blueprints such that they provided a logical mapping of the process from goals to sample activities to kinds of evidence of completion of activities, to indicators of accomplishment of goals.

At the first technical support session, further discussion of the content of the Blueprints led to consensus among participants that the PRAIRIE evaluators would provide a modified template for the Blueprint, adding an additional column for “indicators,” and then provide the PDL Planners with suggestions or questions prompting thinking around how the content of the Blueprint might be modified to increase its logical coherence and usefulness as a kind of rubric for tracking and assessing PDL recruits’ progress in meeting the Blueprint goals.

At the third technical support session the evaluators reviewed the suggested modifications with the PDL program planners, including the additional column for indicators of successful accomplishment of goals. The group then began to discuss the meaning and content of each of the columns, beginning with the goals. Discussion of the wording for PDL goals focused on two different issues: (1) whether goals could be a combination of activity completion goals and learning outcome goals, as they are now; and (2) whether the goals should describe what the PDLs should accomplish in order to be certified, or describe areas of their ongoing growth and development from new to experienced PDLs.

Discussion around this second issue led to the realization on the part of the planners that there were different views as to the purpose or significance of the Blueprint: was it meant to represent guidelines for becoming certified as a PDL, or was it meant to provide a template for the ongoing professional trajectory of PDLs? The PDL program planners decided to take this question back to their respective teams and managers, and development of the Blueprints was put on hold until the question of the purpose of the Blueprints was resolved.

By the time the Academies were launched in May 2009, the issue of the purpose of the PDL Blueprint or Plan had not been resolved. The Blueprint was included in the Science PDL Academy binder in a form unmodified from the previous year as one of the documents orienting prospective PDLs to the requirements for becoming a PDL. During the orientation sessions on first day of the Science Academy, Science facilitators reviewed the Blueprint and asked participants to begin filling in a blank blueprint in order to begin tracking their progress toward certification. In one session we observed, there was some uncertainty on the part of participants as to what aspects of their prior teaching and professional development experience counted as “sample activities” toward their certification (see the Blueprint Template on the next page). A Science PDL planner indicated that similar uncertainties emerged in another orientation session, suggesting the need to further clarify the purpose and desired content of the Blueprints.

The 6-8 grade Math programs did not provide Academy participants with the Blueprint to discuss the goals, activities that would lead to certification. However, the facilitators for 6-8 grade curricular programs used the Blueprint to determine the goals and activities for the Academy sessions.

The Progress Report prepared by the PRAIRIE Group included a sample page of the worksheet PRAIRIE evaluators developed to support the PDL planners’ modification of the PDL Blueprints. The template for these worksheets is inserted below. The intention of the worksheets was to provide PDL planners with feedback on each of the Blueprint components so that they could begin to draft a more coherent plan that included concrete, observable or measurable ways of assessing whether prospective PDLs had met or made progress to the identified goals. Rather than include the entire set of worksheets within this report, we have attached the series of worksheets for the Math and Science Blueprints to this report as Appendix B.

Chicago Math & Science Initiative Professional Development Leadership Plan

Worksheet Template

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT					
PRAIRIE FEEDBACK					
REVISED TEXT					

A.3. PDL Program Documentation, Reflection and Evaluation Tools

The purpose of this section is to provide concrete feedback to program planners regarding tools that were used during the 2008-09 program year to gather information about quality of key program component activities and outcomes produced through those activities.

As discussed in the overview to this section, time did not permit for a process of shared examination of materials used during these different stages of the PDL program. Thus, in this section we provide a set of guidelines that we propose PDL planners use to review and potentially modify existing tools and developing new ones. We then apply those guidelines to a sample of PDL tools that were used during the last program year, offering feedback for modification where appropriate. The intention is to suggest ways in which program planners might review and revise existing reflection and evaluation tools, and to introduce some of the factors they might consider in creating new tools.

Guiding Questions for Review and Revision of Reflection and Evaluation Tools	
CONTENT OF QUESTIONS	<ul style="list-style-type: none"> • Addresses the objectives of the workshop or presentation, for instance by asking about new knowledge, changes in attitude, intended changes in practice. • Addresses the relevant short-term goal(s) of the PDL program. • Reinforces the learning goals of the workshop or presentation. • Is consistent with other PDL program documents and assessment tools. • Asks participants to compare expectations to experience. • Solicits participants' feedback, including suggestions for improvement.
STRUCTURE OF QUESTIONS	<ul style="list-style-type: none"> • Avoids posing a series of questions as one question. • Avoids questions that prompt yes/no answers. • Avoids leading questions or overly broad questions. • Questions are clearly stated in language that is appropriate to the audience.
FORMAT OF TOOL	<ul style="list-style-type: none"> • Provides adequate space for extended responses. • Text is easily readable. • Questions are organized thematically. • Length of questionnaire is appropriate to time allotted for completion.

Feedback on a Sample of Reflection and Evaluation Tools

Mathematics PDL Academy Session Evaluation Form: During the Mathematics PDL Academy, participants were provided with a one-page “Reflection” form that contained the following three questions:

1. Pick an idea from today’s session about teaching and learning that you found interesting. Share your thoughts about this idea.
2. How can you implement this idea in teaching practice?
3. What did you learn/think about/do today that will be useful to you as a professional development leader?

Using the guiding questions, evaluator feedback is as follows:

Content:

- The reflection items can be used to determine whether participants acquired new knowledge or understanding, and whether they plan to apply that new knowledge as teachers and PDLs. In this way the form implicitly addresses program goals.
- If a goal of the Academy is to improve participants’ teaching practice, the second question is relevant. The third question most directly reinforces session and Academy goals.
- Because of its general applicability to all sessions, the reflection tool does not address the specific goals of the session.
- The reflection tool does not ask participants to compare expectations with experience, or to offer suggestions as to how the session might be improved. The potential value of such questions is to support the leadership of participants by engaging them as “experts” in the assessment of the PDL Academy.

Question Structure:

- The first question asks participants to pick an idea about teaching and learning. The evaluators wonder whether the intention is for participants to pick an idea that relates these two, or addresses both of them. Also, is this question aimed at addressing the teaching and learning of adults in PD or students in math classrooms?
- It is not clear why the third question offers multiple options for indicating what participants got out of the session that will be useful to them. Perhaps simply asking what they learned would cover the range of options.

Format:

- The short, open-ended format is appropriate for a reflection form that is meant to be used in multiple sessions covering a range of content. The amount of space provided encourages extended response. Therefore, session presenters should be sure to leave adequate time for participants to complete the form. (To further reinforce the reflection process, time might be allotted for participants to share their feedback with the group.)
- Because one-page forms of this kind often prompt short, cursory answers, it might be helpful for the form to include guidelines at the top. If additional questions are added to solicit participants’ feedback on the quality of the session, one or two additional questions could be added to the back.

The CMSI (Science) PDL Observation Form: As described at the bottom of this form, the Observation form “is designed to be a guideline for observation of and conversation about providing professional development. Its focus is related to the key ideas developed at the CMSI Science Professional Development Leadership Academy.” The form asks a series of six questions pertaining to “participant learning,” followed by six questions pertaining to PDL “moves.” To the right of each question there is a column for “Observations.” The form is probably user-friendly in that it is modeled after the CMSI “Classroom Observation Guide” (COG) that is used to assess teachers’ math or science instruction and curriculum use. Questions included on the form are as follows:

Participant Learning:

1. What evidence is present that the participants understand the key ideas of the session?

2. How are tools used to help participants develop an understanding of ideas within the PD session?
3. How are participants reflecting on their own learning?
4. How does the mood in the session support participant learning?
5. How are ideas communicated and explained between PDL and participants and/or participants and other participants?
6. How do the participant and PDL interactions reflect collaborative and respectful relationships?

PDL “Moves”

1. In what ways does the PDL demonstrate an understanding of the unit being presented?
2. What questions or strategies does the PDL use to guide, focus, and facilitate participant understanding?
3. How does the PDL use ongoing assessment to modify the presentation based on the needs of the participants?
4. What structures does the PDL put in place to facilitate participant reflection?
5. How does the PDL encourage communication and move discussion forward?
6. In what ways does the PDL encourage a climate of respect for the ideas of all participants and promote intellectual risk-taking?

Using the guiding questions, evaluator feedback is as follows:

Content:

- Overall, the observation form, used as a reflection and professional development tool for PDLs, addresses the short-term goal that “PDLs improve PD delivery, teaching and leadership skills,” as well as the broader program goal of providing high-quality professional development.
- The form reinforces the learning goals for PDLs as presented during PDL Academy sessions and through the PD planning process.
- Given that the form is meant to be a “guideline for observation of and conversation about providing professional development,” would it be appropriate for there to be two observation columns, one for the facilitator/supervisor, and the other for the PDL? Similarities and differences in observations could provide additional material for conversation.
- The content of the form is generally but not thoroughly consistent with the standards for high-quality PD elaborated in other documents guiding Science PDL learning and PD planning. For instance, allotting time for and supporting group work is not included. Also, the expectations of the PDL implied by the observation form only partially overlap with the roles described in the “CMSI Science PDL Self Reflection Worksheet” that PDLs complete to assess their own professional growth. For instance, where the Self Reflection Worksheet asks the PDL to assess how well they model inquiry-based science (“explore first, explain second”), this is not a PDL move included on the Observation Form. Conversely, where the Observation Form draws attention to the PDL encouraging a climate of respect for participants’ ideas, this is not among the PDL roles listed on the Self-Reflection Worksheet.

Question Structure:

- Numerous questions assume that the desired participant learning or PDL move has taken place, and asks in what ways. While this is a constructive way of phrasing the prompt for an observation, does it encourage the observer to also record instances in which a PDL may not have engaged in a particular move, or may have delivered PD in ways that produce an impact opposite to what was intended? Is there a way to prompt for that while maintaining the spirit of constructive criticism?
- Overall, the prompts are effective in addressing one element of participant learning or one PDL move per prompt. The exception is the last PDL Move (#6), which combines “encourages a climate of respect” with “promote intellectual risk-taking.”

Format:

- The one-page format is convenient for facilitators completing the form. However, the amount of space provided for observations is minimal, given the complexity of the actions referenced by the prompts. Also, as per the comment above regarding PDL input, it might be worth considering a form that has one column

for facilitator/supervisor observation and another column for PDL observation. (Alternately, and in order to avoid the PDL first reading the supervisor's observations, one could ask PDLs and supervisors to complete the same form separately and then compare observations.)

- The lack of guidelines for observers would suggest that expectations for completing the form have been explained, or are self-evident. In order to increase consistency in how the forms are completed, it might be appropriate to include some guidelines on the form.

Reflection Questions for Developmental Evaluation

- The emphasis of the PDL program goal statement as currently articulated emphasizes ongoing processes of development and sustainability. Should this goal statement be modified or supplemented such that it more explicitly identifies changes in capacity or conditions that are expected to result from developing and sustaining this cadre of PDLs?
- What kinds of information are needed to determine whether the guiding assumptions or rationales of the PDL program are accurate? (For instance, is information being gathered to determine whether teachers who are experienced users of a curricular program are in fact able to provide better professional development than vendors, by virtue of their familiarity with the district and classroom context?)
- Do all facets of the PDL program's implementation take into account external factors and available resources? Are all intended activities and desired outcomes realistic in light of external contexts and available resources of time, funds, and personnel?
- Given that planners are working with teams of facilitators to plan and implement aspects of the PDL program, should these teams be involved more directly in the developmental evaluation process?
- How can the developmental evaluation process be folded in to ongoing program development such that key program tasks including Blueprint standardization and reflection tool revision can be completed in a timely manner?
- Given the numerous reflection and evaluation tools that have been developed for the PDL program over the years of program implementation, and given the goal of program standardization, what actions might be taken to increase usefulness and coherence of the forms, within and across math and science?
- How might facilitator groups and/or experienced PDLs participate in review and revision of the various reflection and evaluation tools to optimize their value?

SECTION B: PDL PROGRAM EXTERNAL EVALUATION

This section constitutes the external, formative evaluation of the PDL program's implementation. As was discussed in Section A of the report, this evaluation focuses on the core sequence of PDL program activities that begins with initial recruitment activities in the fall and continues with the spring PDL Academy, which prepares PDLs for their roles as presenters, co-presenters, or observers of summer and then school-year professional development.⁶ Program areas addressed in this section include short and long-term program goals and the three key program components of recruitment, PDL Academy, and PD Delivery.⁷ Reporting on program components is followed by a discussion of five salient cross-cutting themes: standardization of the PDL program within and across Math and Science, fidelity of implementation versus faithfulness to purpose, differentiation of program roles and role supports, uses of continuous feedback, and sustainability of the PDL program. Each subsection is followed by questions for reflection. Findings, analysis, and reflection questions aim to draw attention to issues of program logic, feasibility, coherence, successes and challenges, with particular attention paid to the relationship between the program's logic, short-term goals, and actual implementation.

B.1. Methodology

Data Collection and Sample: The content of this section of the comprehensive report draws on data collected from the following sources:

- interviews with eight program stakeholders representing four different roles within OMS and thus perspectives on the PDL program;
- observations of facets of the Mathematics and Science PDL Academies, including informal debriefs with Academy workshop presenters;
- observations of six summer professional development workshops, including debriefs with presenting PDLs;
- three focus groups with experienced PDLs from Mathematics and Science;
- notes from meetings with PDL planners.

Records of meeting discussions are based on evaluator notes, including planners' feedback and brainstorming during the logic modeling process. Observational data are based on evaluator notes, including preliminary analysis completed after the observations. Stakeholder interviews, post-observation debriefs and focus groups were audio-recorded to ensure accuracy. Data collection protocols are attached to this report as Appendix D.

Data Analysis: The entire data set was initially organized by the evaluators in relation to the three key program components. These data subsets were then coded and analyzed according to a combination of component-specific themes and the cross-cutting programmatic themes. Component-specific themes were determined in part by the explicit goals articulated by program stakeholders (goals being one of the analytic codes), in part by issues that emerged from the data as relevant to the quality and consistency of program implementation.

⁶ Because data collection focused on this sequence of activities, this report does not address the nature and quality of the various additional PDL program activities (for instance, additional recruitment of potential PDLs, a "mini-Academy" in the winter, or area-based professional development) that have developed in response to increased and diversifying needs for teacher professional development in the CMSI-supported materials.

⁷ In this report we refer to PD delivery in general, which is how stakeholders and PDLs referred to it, except when talking about scheduling summer PD. We do not differentiate between summer and school-year PD, in the sense that the PDL Academy is meant to prepare PDLs to deliver PD throughout the year. That said, the evaluators were not able to directly observe school-year PD, in part because the focus of this year's evaluation was more on the training of PDLs than on PD delivery; and in part because school-year PD provided by PDLs trained in the spring of 2009 did not begin until after the evaluation data collection was completed.

B.2. Findings, Analysis, and Questions for Reflection

B.2.a. PDL Program Long- and Short-term Goals

This sub-section provides an overview of the long- and short-term goals articulated by eight program stakeholders representing OMS leadership, key program planners, and facilitators also involved in program planning. We also consider issues of coherence and feasibility of short-term goals overall. More extensive consideration of short-term goals in relation to program implementation is included in discussion of each of the program components in sub-section B.2.b.

Long-term goals for the PDL program: All stakeholders characterized the long-term goal of the PDL program as entailing the development of a pool, or cadre, of teacher leaders who provide district-wide professional development and who provide leadership in their schools. This characterization is consistent with PDL program documents and stakeholder comments gathered for last year's (2007-08) evaluation.

When stakeholders elaborated on the program's long-term goals this year, certain additions to that broad goal began to emerge that are apparently becoming intrinsic to the message about the PDL program. In the first place, all stakeholders indicated or acknowledged that the goal was not only to develop, but to *sustain* a pool of teachers who could provide district wide professional development. Secondly, discussion around issues of recruitment of prospective PDLs, as well as the criteria for certifying teachers as PDLs, made clear the importance of ensuring that the professional development provided be of consistently *high quality*. Finally, stakeholders articulated as a programmatic goal the provision of localized, "*in-context*" professional development: i.e., professional development that addresses and takes place within the specific context of the District and is provided by teachers who work within that context. The PRAIRIE evaluators have synthesized these additions into a working statement for the program's long term goal (included in the logic model in Section A), as follows:

To develop and sustain a cadre of qualified teacher leaders who provide high-quality mathematics and science leadership in the Chicago Public Schools, facilitate district-wide (and Area-based), in-context, CMSI professional development, and support coherence in standards-based math/science education across the District.

Short-term goals for the current program year. As with descriptions of the program's long-term goal, most of the short-term goals stakeholders identified for this year were consistent with last year's goals. A few additional program goals were introduced that are consistent with changes in the program's long-term goal. All eight stakeholders identified the following short-term goal for this program year: increasing the number of teachers recruited into the PDL program, also referred to as "filling all the slots" for PD provision. Six stakeholders identified the following short-term goals: further standardizing the PDL program across math and science; improving the retention of existing (experienced) PDLs; increasing the supports for PDLs – in part as one way of increasing retention. Five also referred to improving the internal processes of monitoring and assessing program progress as a short-term goal. This latter goal refers to a range of specific practices identified by stakeholders, including: tracking participants and their development as they moved through the PDL program; gathering and using reflective feedback from PDLs on their experiences and needs; and engaging facilitators in reflection on the quality of the PDL Academy and PDLs' provision of professional development.

Some short-term goals were identified by a sub-set of stakeholders. For instance, primary program planners considered improving the distribution of PDLs (through recruitment) throughout the district and by Area to be a short-term goal for this year and beyond. OMS upper management mentioned autonomy of the PDL program from university partners or curriculum vendors as a short-term goal, such that PD provision would increasingly take place in-house. While the stakeholders described these as short-term goals, it might be more appropriate to characterize them as *mid-term* goals, in that it was implied or indicated that the goal "might not fully happen this year, or the next," but was something the program was working toward.⁸ For instance, in the cases of improved

⁸ From a program logic point of view these would not be considered long-term goals *per se*, as they are goals whose accomplishment would contribute to realizing the long-term goals.

distribution of PDLs across Areas, and increased autonomy of the PDL program, stakeholders noted that progress toward those goals was being made this year, but noted that efforts toward better distribution and program autonomy, respectively, would continue to increase over the next few years.

Coherence and feasibility of goals: The degree of consistency in stakeholders' identification of goals is an indication that there is a shared understanding of the program's purpose among OMS leadership and program planners. Similarly, there is considerable logical coherence between the long-term goal and the short-term goals, suggesting that the program leaders share a clear and concrete plan for the steps that need to be taken in order to move toward the long-term goals. Moreover, the fact that several of this year's short-term goals involve modifications of last year's goals, demonstrates how the program is developing and changing in order to address the evolving long-term goal and broader needs of OMS and the District.

The extent to which the PDL program has been able to meet its short-term goals is taken up in subsequent subsections in relation to specific program components. Here we note that when stakeholders identified areas where the program has not been as effective as it would like to be in meeting its short-term goals, they consistently identified as challenges the limited resources of time, finances, and/or personnel. Several stakeholders identified challenges they faced in efforts to provide additional supports beyond the Academies and during PD provision. For instance, on the Science side, plans were put in place and funds allocated at the beginning of this program year to support experienced PDLs by organizing a series of quarterly professional learning sessions. However, only two of the meetings were convened, due to a lack of time and personnel resources to adequately prepare for and convene the meetings. Similar challenges were described on the Math side in relation to efforts to engage facilitators in learning communities around their mentoring, supervisory, and management roles. The fact that progress towards goals seems to be regularly challenged by deficiencies in key resources suggests that some of the short-term goals may be unrealistic as currently envisioned and require modification. Potentially, the processes of internal assessment and reflection that are to be put in place as one of the short-term goals will generate information that can contribute to identifying possible modifications to those goals or to the programmatic assumptions on which they are based.

Questions for Reflection

- What kinds of resources can be leveraged (time and personnel, for instance) to support the PDL program in addressing challenges it faces in meeting short-term goals?
- How might planners continue to ensure ongoing coherence between long- and short-term goals as programmatic challenges arise?

B.2.b. Key Program Components

Recruitment of PDLs

Identified recruitment goals: In interviews and during PDL program planning meetings, program planners and OMS leadership identified several goals for recruitment. The first goal, standardizing the recruitment and screening process, relates to recruitment *activities*. The next three goals relate to recruitment *outcomes*, and include: increasing the number of recruits, improving the distribution of teachers recruited, and increasing the number of recruits that are retained in the program. A fifth goal, documenting the recruitment process, addresses the need to gather systematic data in order to facilitate *assessment* of recruitment activities and outcomes. Below we consider each of these goals in turn. Where information is available, we compare recruitment plans and practices described by program planners to the experiences and perspectives of a small sample of math and science PDLs.

Goal 1: Standardizing the recruitment process. In the context of recruitment, the goal of standardization refers to greater consistency in the implementation of recruitment practices in general, and to the implementation of similar recruitment practices across math and science.

Four stages of recruitment: Stakeholders described a five-stage recruitment process that has taken place this program year, consisting of:

- (a) Identification and recommendation of potential PDLs
- (b) Classroom observation to screen potential recruits
- (c) Invitation of prospective PDLs to apply to the programs
- (d) Review of applications
- (e) Invitation of selected teachers to participate in the PDL Academy

Below we report on recruitment in terms of these five stages laid out by stakeholders, compare stakeholders' perspectives to the reported experiences of PDLs, and identify improvements and challenges to recruitment for each stage, including the extent to which that stage has been or can be implemented with consistency. We then report on standardization of recruitment across math and science sides.

a. Identification and recommendation of potential PDLs. Both stakeholders and experienced PDLs noted that at the initial selection stage, PDLs are drawn and should continue to be drawn from a pool of teachers who are experienced and effective users of the CMSI materials – a pool one stakeholder described as a “closed society.” There was disagreement among stakeholders and PDLs as to whether the application process should eventually be opened to all teachers; however, it was generally agreed that until a method for ensuring the quality of candidates could be adopted, it was necessary to use a closed selection process. As one participant commented, “If it is open then there needs to be a strong filtering or selection process in place—and that’s what we don’t have.” PDLs in two focus groups considered it important to only recruit from the pool of experienced users, noting that new users may not be familiar enough with the curricular materials to be comfortable presenting to other teachers.

According to stakeholders, this “closed society” approach taps into citywide specialists and area coach personal-professional networks as the main source for identifying potential new PDLs recruits. While all stakeholders said that they trust the judgment of citywide specialists and area coaches, a few thought it would be good to experiment with other avenues. As one stakeholder commented, “We are struggling with the fact that there are many good teachers out there that we are missing. So, how do we get to those folks who nobody really knows are doing a great job?” In light of stakeholders' perceptions, it is particularly notable that five of the ten experienced PDLs we spoke with had been identified by other PDLs when they were attending professional development. Four were approached by the PDL and then received an invitation from OMS; a fifth approached the PDL to express her interest in providing PD, and was later invited into the program. Moreover, six of the ten PDLs related that they have taken it upon themselves to recommend participants in PD they provide to math or science facilitators as potential PDLs. Apparently, there is already one additional mechanism by which potential PDLs are identified and recommended, and that is through PDLs as a result of PD provision.

b. Classroom observations to screen potential recruits. PDL program stakeholders and PDLs concurred that, whether teachers are recommended by citywide specialists, area coaches, or PDLs, *ideally* at least one classroom observation should be made of the potential recruit. Stakeholders indicated that the purpose of the observation, conducted by an OMS facilitator, is to “see where they [the recommended teachers] are... we just want to get a sense of their standards-based classroom practices, what is their thinking about student learning, and teaching.” However, stakeholders indicated that this does not always occur, due to limits of time and personnel. In discussing challenges to recruitment, stakeholders indicated that facilitators encountered an increased difficulty in observing all potential PDL recruits. This difficulty is linked to changes in the PDL facilitator roles. As one stakeholder noted, “Because our facilitators' roles have really become project managers, they really don’t have time to go out into schools to do site visits.” Another commented, “Usually when we get the recommendation from the coaches we don’t necessarily go out and do a site visit. If the coach has seen them teach and they are wonderful, we might just invite them to the Academy based just on that.” Another stakeholder noted that the change in facilitator role eliminates the connection with the schools and thus awareness about what is going on at the school level or in the classroom. Thus, as a result of the changes in facilitator role, the recruitment process does not always conform to the desired model.

PDLs' accounts of how they were recruited suggest that classroom observation has taken place in several different ways. Three described having been observed by an OMS facilitator following recommendation by a facilitator or the PDL leading the PD they were attending. Two others were observed first – one by a supervisor and the other by

a fellow teacher who was a PDL – and then recommended to OMS staff for the PDL program. Three PDLs were invited based on their experience conducting workshops on the curriculum in collaboration with a partnering university, and were not formally observed in their classrooms (though we did not ask whether they had been observed teaching the curriculum prior to conducting workshops); and two PDLs did not mention being observed teaching prior to attending the Academy.

In summary, it appears that the screening of potential PDLs is not completed uniformly across recruits. Furthermore, facilitators feel somewhat removed from everyday classroom practice. To address this, some stakeholders suggested delegating classroom observations to experienced PDLs. As discussed in a later report section on PDL Roles, this would also be a way to involve experienced PDLs more directly in the PDL program. It also appears to be a logical extension of the expansion of the experienced PDL role to formalize the process by which PDLs recommend potential recruits from the participants in their PD sessions.

c. Invitation to apply to the PDL program. In response to the recognition that in previous years recruits were not made aware of the various time demands of the PDL Academy and professional development – thus possibly contributing to attrition of recruits prior to completion of the Academy -- during the current program year a letter was to be sent to prospective recruits describing the process and offering them time to consider their involvement. From that point, responding recruits were sent a more formal application. However, the late start of PDL recruitment disrupted this flow somewhat. According to one stakeholder, delivery of invitations was delayed by efforts to standardize the letter across mathematics and science sides. According to stakeholders, this delay may have affected the goal of giving prospective recruits adequate time to carefully consider whether or not to apply to the PDL program. Now that a standard letter of invitation exists, it is expected that this stage of recruitment will be more effective in communicating program requirements to prospective PDLs.

d. Review of PDL applications. According to stakeholders, the screening process for applications was carried out more systematically during the current year than in the past. A few stakeholders commented that in previous years the review quality of application materials and resumes was not always uniformly applied or adequately rigorous. One noted that in the previous year, “we had people who came to the PDL Academy and after the first day they said this was too much for me—I don’t think I can handle this.” While this situation may have resulted from a lack of clear communication of expectations (a problem identified in relation to the invitation letter), this stakeholder suggested that they might have avoided recruitment of unqualified teachers if there was “something that was on their resume that we could have caught.” Stakeholders commented that in the current year, however, application content was reviewed more closely, in light of the criteria specified in the invitation to apply, including: years of teaching experience, completion of at least new (and ideally also experienced) professional development in the CMSI-supported program they teach, demonstration of strong leadership and communication skills and prior leadership activities, commitment to deepening their content and pedagogical knowledge in math and/or science, and demonstrated ability to communicate well with their peers and support their math and science learning.

Increased standardization of recruitment: The move toward formalization of these four stages marks a tendency towards increased consistency in the recruitment process. This is particularly apparent when compared to the range of ways the experienced PDLs we spoke with described the process by which they were recruited, as well as ways they have been involved in the recruitment process. That said, it is striking that, of the 10 PDLs we spoke with, there was a greater range of pathways to recruitment among those PDLs who had been in the program the longest, compared to the more recently inducted PDLs (those who are in the second year with the program), whose experience more closely resembled the current model. Recognizing the limits of generalizing from such a small sample, the comparison suggests a trend towards increased standardization of the recruitment process.

Coherence across math and science in recruiting efforts: Stakeholders said that recruitment efforts used by Math and Science sides for this program year were very similar. This was not coincidental, but rather the result of deliberate efforts by Math and Science PDL planners to standardize the process. As a result, all of the components – contacts, invitation letters, application, and most of the criteria for application– are the same. In addition, both sides

sent reminder letters to coaches at the same time. What is not certain at this point is the degree to which observations of prospective PDLs are similar across Math and Science. Moreover, because a formal rubric for rating applications was not used this year, it is not known whether selection processes were comparable across Math and Science, or even within each side. Discussion during meetings around the desire to further systematize the recruitment process suggests that standardization of the selection process may be a goal for the next program year.

Goal 2: Increase number of recruits. A basic goal identified by six stakeholders was to increase the number of teachers recruited to participate in the PDL Academy. On the science side, program planners increased their target recruitment number from 60 in 2008 to 80 in 2009. Total attendance at the 2009 Science PDL Academy was 72, which included 49 new and 23 experienced PDLs. Attendance at the Math PDL Academy was approximately 107 PDLs, which included 65 K-5 PDLs and 42 6-8 PDLs.

Goal 3: Improve the distribution of teachers recruited. While no specific distribution numbers were available, stakeholders commented that active PDLs are disproportionately distributed across District areas and schools, curricula, and grade levels (for math) and kits (for science). Some stakeholders related the uneven distribution of PDLs to such factors as uneven targeting and challenges facilitators have faced attempting to recruit PDLs to fill gaps in particular curricular materials and grade levels. This year's focus on improving the distribution of PDLs throughout the district stimulated some effort to target marketing and outreach. One of the planners noted that recruitment was extended to include some areas that have been underrepresented.

Goal 4: Recruit effectively for retention. In interviews and planning meetings, planners indicated that one of the goals of recruitment was to select teachers who were most likely to complete the Academy and then sign up to participate in PD delivery – whether as an observer, co-presenter, or lead presenter. One stakeholder related how in past years some teachers came to the PDL Academy and after the first day decided that “this is not for me.” She felt that a better screening process, including better communication of the PDL role, could minimize attrition going forward. By comparison, two PDLs suggested that some teacher recruits may not decide whether or not they are interested in and able to take on the role of PDL until they participate in the Academy and have the experience of presenting a mini-lesson in front of their peers. These represent two different recruitment and screening models that planners may want to consider in modifying recruitment goals and activities for the coming year.

Goal 5: Documenting the recruitment process. Stakeholders recognized the importance of documenting the recruitment process in a systematic way in order to assess the extent to which recruitment has been standardized, identify whether the PDL program is meeting the recruitment goals described above, and determine whether or not successful recruitment is related to standardization. To date, there is no formal documentation of recruitment sources (recommenders); nor is there a rubric for the classroom observation or review of the prospective PDL's application. However, several stakeholders noted that efforts are underway to develop a database to monitor distribution of PDLs across the district and grade levels.

Questions for Reflection

- If the current network of coaches, specialists, and PDLs taps primarily into areas, schools, kits and grade levels that are already well-represented, what might OMS do to alter its recruitment plan to fill all the gaps?
- Given the range of ways current PDLs were recruited, how important is it to standardize all stages of the recruitment process? Can some stages be more flexible than others?
- What credentials and dispositions should PDL *recruiters* have? How are those credentials and dispositions determined and by whom? Should the selection of recruiters be more formalized, or is the current approach effective?
- How will OMS revise the roles of facilitators and experienced PDLs in the recruitment process as those roles evolve?

Math and Science PDL Academies

In this section we begin by identifying the formally articulated goals or “short-term outcomes” and other less formally articulated expectations for this year’s PDL Academy, as expressed by program planners and OMS leadership. We then compare Academy goals as articulated by these key stakeholders to observations of facets of each Academy, as well as the expectations, experiences, and perspectives of a small sample of math and science PDLs and OMS facilitators who participated either in focus group discussions or debriefs. In this way, the section also addresses one of the stated broad goals for this year’s Academy, which was “to increase coherence between Academy goals and workshop content.”

Goals and desired outcomes for the PDL Academy: At the broadest level, the PDL Academy is intended to prepare PDLs to provide high quality, district-wide professional development in CMSI supported materials to CPS teachers. A second broad goal of the Academy is to contribute to the certification of new PDLs and the ongoing professional development of experienced PDLs. (Indeed, according to PDL program documents and the PDL blueprints, attendance at the PDL Academy is a required step in the process of PDL certification.)

Formal, short-term goals for the 2009 PDL Math and Science Academies were articulated in various forms: in interviews with program stakeholders, as “desired outcomes” discussed in the process of logic model development with PDL program planners, and in program documents included in the PDL Academy binders. These numerous goal statements can be clustered into three goals categories, as follows:

Program implementation goals: Expectations for this year’s PDL Math and Science Academies included an increased number of participants and consistent attendance of participants. Both Math and Science sides articulated a short-term goal of greater participation of experienced PDLs in the Academy and of regular reflection by PDLs on Academy activities. Stakeholders also expressed the expectation that participation in the Academy would create or contribute to the development of professional community for PDLs.

Knowledge goals: As a result of participating in the Academy, PDLs should increase their understanding of the following: curricular (math or science) content and pedagogy, adult learning, the CMSI message, and their roles as PDLs.

Skills and dispositions goals: Participation in the PDL Academy is expected to lead to an increase in PDLs’ leadership skills, as well as an increase in PDLs’ confidence and familiarity with the materials they will use to co-facilitate PD.

In the rest of this section we report on findings relating to each of the goal clusters in turn, focusing on goals for which there are meaningful data. Because the emphasis of the evaluation was on Academy structure, activities, and content, the focus of this section is on the extent to which those facets of the Math and Science Academies (as observed, reflected on by PDLs and OMS facilitators, and represented in PDL program documents) were consistent with short-term goals for PDLs, and seemed feasible in terms of meeting those goals.

Program Implementation

PDLs’ attendance and participation in the Academy. In the previous section on recruitment we reviewed Math and Science Academy attendance numbers in relation to recruitment targets. Here we focus on consistency of participants’ attendance across the multiple days of the Academies.

In interviews and planning meetings, PDL program planners emphasized the importance of participants’ regular attendance at the entire Academy. PDL program documents sent to prospective PDLs indicate that PDL candidates must successfully complete the PDL Academy in order to begin working with OMS staff to develop their PDL certification plan. However, “successful completion” is not defined. Thus it is not clear whether Academy participants were cognizant of OMS’s attendance expectations. Math planners indicated that each session covers different PDL certification goals, thus making consistent attendance important for the certification process, and “in terms of their preparation for the summer professional development.” Science planners and facilitators similarly emphasized the importance of PDL candidates and experienced PDLs attending the entire Academy, as each day of

the Academy addressed different facets of preparation for PD delivery. While not mentioned by planners as a reason for regular attendance, it bears noting that formal planning for summer PD – in terms of identifying and scheduling co-presenters – took place during the Academies, thus making Academy attendance important in terms of preparation for PD delivery.

This year, the Math Academy consisted of five three-hour sessions that took place after school or on Saturdays, at Medill, over the course of more than a month. Where in previous years the Math Academy had four sessions, a fifth session was added for two reasons. First, the prior year's evaluations indicated that there had not been enough time in the four sessions to cover all the material adequately. Second, it was felt that the Math Academy had not adequately addressed the themes of adult learning and co-facilitation. As was true last year, Math Academy sessions were spread out across several weeks in order to allow participants time to read materials provided by the Academy and prepare presentations between sessions.

Evaluators learned through observations, debriefs, and focus groups that Academy participants' attendance was often inconsistent. While we cannot report on actual attendance numbers for the numerous Academy sessions across the four Math curricula, we did learn from Academy participants about some of the reasons for the uneven attendance. At two different sessions, participants indicated that they had not learned until May that they were going to attend the Academy, causing them to miss the initial session. Where some participants commented that it was difficult for them to attend Academy sessions that took place during the weekday after school, others expressed reluctance to attend the Academy on Saturdays.

Because Academy session activities built upon each other, with participants planning and then presenting "mini-lessons" in order to practice and receive feedback on their PD delivery, uneven attendance had a notable impact on the quality of the sessions and, potentially, the extent of the participants' knowledge and skill development. For instance, at one Academy session, several participants who had not been at the previous session were not prepared for a workshop activity. At another final session focusing on co-facilitation, one participant had to do her presentation without her presentation partner, who was absent. This latter experience was used by the workshop leaders as a "teachable moment" to talk about what happens when your co-facilitator doesn't show up to PD – which the workshop leaders and some of the experienced PDLs in the session noted had happened to them at some point.

The Science PDL Academy consisted of 12 hours of meeting time and followed a format comparable to the previous year's Academy: two half days and one full day -- from Thursday afternoon through Saturday afternoon -- at the Shedd Aquarium. In a planning meeting discussion about the rationale for the Academy structure, one of the Science planners noted that, while the condensed schedule might not allow for a lot of participant preparation between Academy days, she felt that the schedule, combined with the "off-site" location at a partner museum, encouraged a sense of continuity that they hoped supported more consistent attendance.

Participation of experienced PDLs in the Academies. Stakeholders representing Math and Science identified as a goal for this year the greater participation of experienced PDLs in the Academy as leaders. They also identified the importance of differentiating the ways new and experienced PDLs participated in the Academy, concerned that experienced PDLs might get bored if exposed to the same content year after year.

This year, both Math and Science involved experienced PDLs in the planning of the PDL Academy and as workshop facilitators. They also both contained some activities or workshops in which new and experienced PDLs worked together, and others in which the two groups were separated. Experienced PDLs also facilitated some of the math Academy small group workshops and feedback sessions in which prospective PDLs worked toward presenting mini-lessons. On the Science side, experienced PDLs' participation was focused primarily on the topic of adult learning. For instance, on the second day of the Academy, a group of experienced PDLs participated in a panel discussion directed toward all participants. The panelists shared examples of successes and challenges as PDLs, described ways in which being a PDL contributed to their teaching, and then provided tips or advice to new PDLs.

Two rationales for the participation of experienced PDLs were articulated by program stakeholders. The first was to support the experienced PDLs' development as teacher leaders, and in this way encourage their retention in the PDL program. (The expected results of involving experienced PDLs in the Academy as planners and mentors are represented in the PDL program logic model.) The second was to support prospective PDLs' understanding of what it meant to be a PDL. One planner commented that they hoped that the experienced presenters "can share some of their experiences more with the new PDLs and help them be able to see what the Academy is about and what they should expect their role should be...." That experienced PDLs do in fact play this role was conveyed in focus group discussions in which PDLs described their uncertainty about their role when they first attended the Academy, noting how the experienced PDLs were able to "give you insight on what you're supposed to do, what you're not supposed to do." As is described more extensively later in this section, several experienced PDLs identified ways in which they assisted new PDLs in developing an understanding of the PDL role. This notion of new PDLs learning from experienced PDLs is consistent with the PDL program's philosophy that experienced teachers can best teach new teachers.

Use of reflection and evaluation tools during Academies. Program stakeholders identified different purposes for the use of reflection and evaluation tools during the Academy: to receive feedback from PDLs on their experiences and needs; to engage workshop facilitators in reflection on the quality of the PDL Academy, and to support what one stakeholder described as the "ongoing learning process of PDLs" which should take place not only during the Academy but throughout the year. The reflection process was incorporated into the Academy in two primary ways: through the use of written reflection or evaluation forms that individual participants were asked to complete at the end of a workshop session or the end of the day; and through the use of rubrics through which participants assessed their own presentations and the presentations of other participants. Time for reflection and peer assessment thus occurred on a periodic basis throughout the Academies. As discussed in Section A.3, the questions posed by the reflection tools were broadly relevant to the content and purpose of the Academy, focusing on practical learning around content and pedagogical knowledge, best practices in providing PD to adults, and relevance of the session to becoming a PDL. Notably, reflection tools did not include questions that offered participants the opportunity to suggest areas of improvement in the sessions.

Together, the frequency with which reflection tools were incorporated into Academy activities, and the broad relevance of the reflection questions to the purposes of the Academy, most likely served to convey the PDL program's message about the importance of making time for teachers to reflect on their learning during PD. Similarly, one piece of advice that experienced Science PDLs who participated in the panel discussion offered to new PDLs was to "reflect on evaluations -- take the advice but don't take it personally."

The consistency of the Academy's message about the importance of reflection may have been undermined to a certain extent by the limited of time actually allotted to the reflection process. For instance, on the first day of the Math Academy, participants were given an evaluation form at the end of the whole-group PowerPoint presentation on adult learning. Participants were observed spending approximately five minutes completing the evaluation form. A comparable amount of time was allotted for the completion of an evaluation at the end of one of the Science Academy's grade-level sessions on adult learning that followed the whole-group presentation on the "Concerns-Based Adoption Model" (hereafter C-BAM) in which the session facilitators asked participants to "write down three things you will take away today."

In addition, because the reflection tools did not include questions asking participants whether the presenters engaged them in meaningful formal or informal reflection during the session, an opportunity was lost to reinforce the expectation that reflection be a key facet of the Academy process and of PD delivery more generally.

Increasing PDL knowledge, skills, and dispositions

Increasing PDLs' content and pedagogical knowledge. Although the Math and Science Blueprints do not list the PDL Academy as a sample activity through which PDLs can reach the goal of demonstrating mastery of (math or science) content and pedagogy, one of the goals articulated by stakeholders was for Academy participants to increase their content and pedagogical understanding. Because the focus of Academy workshops and presentations

was on how to educate other teachers about particular math or science content, materials, and pedagogy, the primary way in which Academy participants were likely to increase content knowledge was through the process of preparing and presenting mini-lessons for particular math curricula or science kits, and observing their peers' presentations. Math Academy participants received additional materials for reading between sessions.

In focus group discussions and debriefs, PDLs did not mention increasing their content or pedagogical knowledge through Academy participation. Rather, they emphasized the knowledge they acquired through their own attendance at district-wide PD and in some cases, vendor-provided PD, as well as the increased understanding they acquired by delivering PD. Two PDLs commented that they would like to receive additional coursework in their content area, but they did not expect that this could happen during the Academy.

Increasing understanding of adult learning. The focus of this section is on the Academy's incorporation of adult learning as a content area within the Academy. (The related subject of PDLs' comfort teaching adult learners is addressed in the following section on PD delivery.)

In last year's final report on the PDL program,⁹ the PRAIRIE Group reported differences in the ways the Math and Science Academies included content on adult learning. Whereas the Science Academy included an extended whole-group presentation on adult learning, focusing in particular on the C-BAM, the Math Academy took the approach of "blending it [adult learning] in, so that it wasn't as visible" -- as one Math PDL planner put it this year. The consensus among PDL program planners for the 2008-09 year was to standardize the approach taken by the Science Academy, in order to explicitly emphasize the importance of understanding adult learning to being an effective PDL. As a result, the Math PDL Academy introduced the topic of adult learning on the first day through a whole-group presentation by a visiting speaker. The Math presentation, drew upon a wide range of research to present a broad overview on teachers' professional learning, including in-school coaching and job-embedded learning, and also addressed how to create learning environments that were optimal for adult learning. The Science presentation took place on the second day of the Academy and focused on the C-BAM, much as it had the year before. The presenter explained the relevance of the C-BAM to adult learners by noting that he was going to talk about working with adult learners from the standpoint of managing change. He told his audience that "as science PDLs, you are involved in changing [teachers'] behaviors."

In both cases the presentations consisted of predominantly direct instruction. The presenter for the Math Academy engaged participants in one small-group activity toward the end of the presentation that revolved around reading and discussing articles addressing different aspects of "job-embedded learning," one of the principal qualities of effective adult learning addressed during the presentation. For the Science Academy, the presenter on the C-BAM model engaged participants in two short small group activities. Following the presentation, Academy participants attended grade-level workshops where they were guided through activities focusing on adult learning, led by outside presenters. In one of the two workshops observed, the content focused on the C-BAM model and involved a combination of whole group discussion and small group work. Discussion in the other session centered on exploring the qualities of effective versus ineffective professional development, and involved direct instruction and whole group discussion based on individual input.

The PDLs we spoke with during both PDL Academies and in focus groups were generally positive about the presentations, which they considered engaging and interesting. Two math PDLs referred specifically to the strategies the presenter provided for taking teachers back and forth between roles: "letting teachers take on the student role sometimes . . . in ways that aren't threatening or wouldn't come across as disrespectful," as one PDL put it.

The evaluators observed that, with both the Math and Science Academy presentations on adult learning, relatively little of the content related directly to the context or practices of professional development delivery that the participating PDLs would be engaging in after completion of the Academy. Rather, the presentations often required participants to draw from broad concepts about adults' learning processes, or notions about how professional

⁹ "External Evaluation of the OMS Professional Development Leaders Program, 2007-08," PRAIRIE Group, October 24, 2008.

learning can occur through other forms of PD such as in-school coaching, and apply those to the area-based, short-term PD they would be offering. Evaluators further noted that the pedagogy used by both the Math and Science presenters – primarily direct instruction to a large group with very little time for small group exploration based in prior knowledge – did not seem to model the kinds of practices that were being advocated for effective professional development with adult learners. By contrast, the grade-level activities that took place after the Science C-BAM presentation more closely modeled the qualities of effective PD for adult learners described by the presenters.

Because the evaluators observed a limited number of Academy sessions, it is not known to what extent and with what consistency the topic of adult learning was infused throughout the Math or Science Academies. The topic was explicitly discussed in one Math session and both Science sessions that were observed. Content reiterated key themes of respecting the knowledge and experience of the teachers, providing them with hands-on experiences, and differentiating instruction based on their prior experience. Several PDLs who praised the Academy overall made special mention of the attention to adult learning, as in the comments of this PDL: "... I really think that our academy -- the PDL Academy they do here -- is just phenomenal. They do a really good job on how to teach adults, which is so important because it's different from teaching children."

Increasing PDLs' confidence in being able to co-facilitate PD. There were three ways in which PDLs we spoke with reported that participation in the Academy contributed to their confidence in being able to co-facilitate PD. The first was through review of the curricular materials or science kits they would be presenting to teachers; the second was through initial planning of the PD session with their co-presenter; and the third was through the mini-lessons they presented which, as one PDL put it, "gave us practice teaching adults, which is totally different from teaching in a classroom with our students."

Understanding and distinguishing PDL program roles. In this section we discuss the ways the planning and organization of the PDL Academy contributed to definition and distinction of PDL roles, and consider the implications of the evolving role of PDLs for math and science facilitators.

PDL roles: All the PDLs we spoke with indicated that participation in the Academy effectively clarified the role of the PDL for them, and described their role as "[showing] teachers the effective way of using their curriculum." The more experienced PDLs we spoke with also identified participation in other OMS activities, such as the CMSI Conference or participation in the Chicago Data Initiative, as developing out of their PDL role. One PDL commented that "Once you have participated in the PD and then gone through the PDL training you have a pretty good idea of what is expected of you." Another experienced PDL described this as a transformation:

My first academy was last year. At first it was really overwhelming. I was trying to figure out what my role was and what I was supposed to be doing. And you still have a lot of questions about the curriculum. It's nice because there are people there that have taught this time and time again to kind of give you insight on what you're supposed to do, what you're not supposed to do, what's a short cut, what to expect from the teachers in your session.

Involving experienced PDLs in the mentoring role that this PDL recognized as important to her development (and that was previously the role of OMS facilitators) was one of the strategies mentioned by stakeholders as a way of supporting experienced PDLs' leadership development and defining their role within the PDL program. In the Science Academy this occurred formally through the first day experienced PDL panel discussion and through the assignment of experienced PDLs to act as workshop presenters on another day, replacing vendors. One stakeholder commented that the experienced PDLs would be more effective as workshop presenters than facilitators because "they are the ones in the classrooms." In addition, one science PDL mentioned that during the development of their matrix she and other experienced PDLs had been involved in defining the role of the new PDLs. Another science PDL said she felt part of her role as a mentor to new PDLs was to help give them the confidence that they could co-facilitate PD.

Math PDL planners and stakeholders described the effort in planning the Math Academy to strike a balance between having some sessions that brought experienced PDLs together with new PDLs to support the experienced

PDLs' mentoring role, and organizing some sessions in which new and experienced PDLs were in separate groups in order to differentiate the professional development provided to them.

Facilitator Roles: Both PDL Academies were organized and overseen by teams comprised of Math or Science managers and numerous math and science facilitators. While the smooth running of the Academies depended on a team effort, it also depended on role differentiation between the primary PDL planners and the other stakeholders. One stakeholder described them as “the higher-level thinking planners. . . they set the tone for what the PDL structure looks like, for what the PDL Academy looks like, what our goals are.”

Although the role of the other math and science facilitators was not discussed during interviews or planning meetings, based on observations of portions of both Math and Science Academies, it is evident that the math and science facilitators also play crucial roles in the organization and instruction that goes on during the PDL Academy. Facilitators played a range of roles including overseeing the sequence of scheduled activities, coordinating the distribution of materials, co-facilitating workshop sessions, and supporting experienced PDLs in their roles as workshop presenters.

Professional community. In focus group discussions, PDLs tended to talk about the PDL program in general as offering a professional community, describing the various ways in which they engaged with other PDLs to plan for and problem solve around the delivery of PD. They also noted that the development of this community happened in part during the Academy, through “the exposure to the other PDLs around you” and through “meeting a lot of good people.” Several PDLs talked about using e-mail to contact their fellow PDLs and OMS facilitators when they had questions or concerns about PD planning.

While PDLs did not characterize the collaborative work they did on developing PD outlines (math) or matrices (Science) during the Academy in terms of “professional community,” it was clear from their descriptions of this work that it contributed to their sense of expertise and leadership, qualities that professional communities are meant to develop.

Questions for Reflection

- Given the importance of potential PDLs' consistent attendance at the Academy in terms of knowledge and skill acquisition (including time to practice PD delivery), what actions can OMS take to encourage and support the goal of consistent attendance at the PDL Academy?
- Are the whole-group presentations on adult learning the most effective and efficient ways of engaging Academy participants in that subject? If the same format is to be used in subsequent years, are there ways the presentations could be modified to make them more directly relevant to the kind of PD delivery that participants will be providing?
- Are the process of reflection and the feedback from the reflection process being used effectively to support PDLs in developing in their roles? By PDL planners to improve the PDL Academy?
- As the experienced PDLs' role comes to be defined as taking on more instructional roles in the Academies, is the facilitator role also being effectively re-defined in relation to the goals of the PDL program?
- Are there additional ways in which the PDL program can support and strengthen the professional community that is created through the Academy – for instance, through electronic modes of engagement such as blogs or list serves?

Delivery of Professional Development

In this section, we provide an overview of stakeholders' and PDLs' goals for professional development (hereafter “PD”) delivery, and then report on key facets of PD delivery in light of those goals. Areas of focus include: planning for PD delivery, the effectiveness of co-facilitation, PDLs' use of feedback, and support provided to PDLs during PD delivery. We also address a few structural issues that were observed to affect optimum delivery of PD by PDLs.

Short-term goals for PD delivery: In interviews and planning meetings, stakeholders representing math and science described several specific short-term goals for this year's PD delivery. Most of the short-term goals focused on expectations for PDLs. As stated broadly in the PDL program logic model, a short-term outcome goal for PD delivery was that PDLs improve their PD delivery, teaching, and leadership skills. More specifically, PDLs were expected to be teacher leaders who would provide high quality, in-context professional development for CPS teachers. They were also expected to present CMSI instructional materials to teachers in a manner that engaged them in learning, "not only about the materials, but learning the content and gaining pedagogical content knowledge." Furthermore, stakeholders expected PDLs to draw on their own teaching experiences during PD delivery, doing so in a well-defined manner that was structured by the curricular outlines they had used to develop their PD sessions. Finally, stakeholders expected PDLs to engage in a process of continual improvement – by reflecting with co-presenters and facilitators and by reviewing suggestions from teachers participating in PD workshops.

During technical assistance meetings, program planners also articulated two short-term goals for teachers attending PD. All teachers were expected to gain exposure, comfort with, and understanding of CMSI curricula; and a subset of teachers were expected to become interested in becoming PDLs themselves.

When PDLs were asked in focus groups or post-workshop debriefs about goals for the PD they delivered, they all remarked that they hoped to help teachers feel comfortable with the curricula and expose them to the materials – thus echoing short-term goals expressed by program planners and OMS leadership. While some PDLs said they felt it was important that teachers learn to follow the curricula step-by-step, others said they believed the goal was to help teachers take ownership. One PDL elaborated that point as follows:

I want the teachers to leave with more than just a sense of how to carry out the "steps" of the lesson. I want them to grasp the big idea addressed by each lesson so that they can teach it in a way that is responsive to students' needs while remaining true to the lesson's purpose and the overall philosophy of the program.

PDLs linked their ability to help teachers feel comfortable with and take ownership of the curricula to their (PDLs') legitimacy and efficacy as "insiders." One said, "The teachers that are attending the PD are looking for someone to be in their shoes. 'You walked in my shoes. You know what it's like.'" Other PDLs identified the importance of a shared understanding of the conditions of some CPS schools. As one PDL commented, "When a teacher asks how to do a science experiment without a sink in the classroom, we can relate. We can help them work through that because we've been there." Thus, although PDLs did not describe the process of drawing on their own teaching experience in CPS schools as a goal of PD delivery *per se*, they did consider that process to be a key element of PD delivery.

In debriefs and focus groups we asked PDLs about their own process of reflection. All the PDLs we spoke with said they considered the reflection time they had with co-presenters and their supervisors to be very helpful. Several PDLs referred to the process of reviewing the teachers' evaluations of the PD to be useful in gauging what went well and what didn't. One PDL summed up the reflection and evaluation review process by noting that it "guides how we're going to do the PD next time, how we can do it better." Again, while PDLs did not identify the process of reflection as a goal *per se*, they did consider it to be integral to their own professional development. By comparison, the goals of engaging teachers or helping them gain pedagogical or content knowledge were not mentioned by PDLs during debriefs or focus groups.

Planning and preparation for PD delivery: PDL program stakeholders described the work of PDL facilitators in planning for PD delivery. This included ensuring outlines or matrices were updated, selecting which PDLs would provide PD for which sessions, and taking care of logistics and materials (e.g., rooms, food, making copies). Facilitators were also responsible for transporting artifacts such as evaluation and attendance sheets. In addition, facilitators assisted PDLs with session planning by overseeing their work in fine-tuning outlines and matrices – a process several PDLs commented on as being extremely helpful for PD planning and delivery. In most observations and in most discussions with PDLs, the planning process was characterized as well supported and feasible.

The planning process for summer PD begins during the PDL Academy when time is afforded for PDL pairs to begin strategizing tasks for their workshops. All PDL teams described meeting during the PDL Academy to talk through a matrix (science) or curriculum outlines (math) as well as a schedule of how much time to give to each component, what strategies to use, and a list of materials needed. One science stakeholder noted that science facilitators meet with PDLs for two hours to do all prep work, which includes inventorying kit materials, discussing planned activities for PD, and listing items PDLs needed for delivery. PDLs said that they felt planning time ensured they would “get a chance to really sit down with your co-presenter and get ready for the actual session.” According to PDLs, in most cases follow-up preparation involved working from home on divvied up segments of the workshop in which each presenting PDL was responsible for preparing for the presentation and collecting materials. Before the PD began, PDLs typically checked in briefly with co-presenters on the day of the workshop.

Preparation of classrooms was noted to be minimal. In some cases, desks or tables were rearranged to facilitate group work. All PDL sessions observed included manipulatives or science kits, workbooks, worksheets, and additional texts (e.g., printed articles). In addition, many PDLs provided water and snacks, pens, pencils, scrap paper, and samples of student work.

Co-facilitating professional development: PDL planners said that in order to meet the training needs of an increasingly complex PDL program, they planned for more experienced PDLs to take an active role in mentoring newer PDLs through co-facilitation. According to stakeholders, ideally the pairing process involves careful selection. In science, partnerships consist of one experienced PDL and observers (up to four), with the observers easing into more active roles while mathematics works in pairs. The delivery of PD for both sides, in theory, consists of an experienced and less experienced PDL. Pairing is done through a combination of availability and observations of how people interact during activities. One mathematics stakeholder noted that, “Sometimes we don’t put two strong people together because of the chemistry.”

A range of notions about the role of PDLs during co-facilitation were expressed by PDLs. Some felt that the experienced PDL should play a mentoring role for newer PDLs. This included a perspective that permitted less-experienced PDLs to observe until they felt comfortable taking an active role and providing active support through feedback and reminders. One noted, “I might write notes like let’s not forget this topic, or I’ll talk to them about ‘let’s remember to go over this when we come back from lunch’ because that’s the time when you can – if you’ve missed something you can go back.” By contrast, several PDLs felt that both should evenly share the work load. The difference in views is partly explained by slightly different “models” for Math and Science sides. One stakeholder noted that Science expects PDLs to spend more time observing than does Math. Differing notions about the role of PDLs might also be explained by variations in the perceived value and role of newer PDLs in terms of co-facilitation. While some PDLs thought of co-facilitation as being primarily a training experience for newer PDLs, other PDLs considered co-facilitation to be more of a mutual learning process. As one PDL noted, “This person [the new PDL] comes with new ideas and so it makes you re-evaluate what you did.”

In our observations and debriefs, we encountered several different configurations of PDL teams, and heard different ideas about how the co-facilitator configuration should function. Most often, we observed mentor / mentee relationships in which the mentor had more experience with the curricular material and how to present it than the mentee. During a focus group, one PDL noted that, “Working with someone who is already experienced in doing that was very helpful because they’ve already been through it. They know what’s going on.” In another case, one experienced PDL worked with two less experienced PDLs. Some pairs shared ownership and responsibility. One noted that she and her co-facilitator “complemented each other’s style and strengths and sort of tag-teamed the presentation in order to fully address participants’ questions and make the lessons and underlying ideas clear to them.” In another observation, a newer PDL and a more experienced one seemed to compete with one another. Nonetheless, their comments suggest that they regarded co-facilitation as convenient because “six hours is a long time to present alone.”

Workshops: As noted above, PDL stakeholders had the short-term goal that workshops follow the schemata of outlines or matrices. Given the limited number of workshops observed by the evaluators, it is not possible to

generalize from our observations. That said, most workshops we observed followed a similar rhythm and structure that began with an overview of the goals of the PD and a plan for the day. Furthermore, in most observations, researchers noted that PDLs reviewed the philosophy of the curriculum and described, in brief, which lessons would be covered. Typically, on the first day of the observations (or during the first part of a one-day PD session) PDLs used direct instructional approaches to demonstrate lesson activities and describe the background of the curricula.

Once the workshop was underway, group work – and to a lesser extent individual work -- was used more often. Several group sessions revolved around preparing for and delivering a mock lesson in a group. Other sessions were observed in which direct instructional approaches made up 80% of the workshop. When “students” reported out, almost invariably they used direct instructional approaches, i.e. presentations made to the whole group. Exchanges among participants and co-facilitators included a fairly even balance between discussion about materials use and instructional practices on the one hand, and review of the lesson content.

Teacher engagement and the use of teacher knowledge and experience: PDL planners expected teachers to be engaged in PD and for PD to be relevant to teachers’ contexts and experiences. PDLs regularly asked teachers to share their experiences delivering lessons and using materials. They also solicited their input about classroom management. For instance, in one workshop we observed, the facilitators encouraged the teachers to share ideas about how to prepare materials for a unit on weather that would accommodate a range of reading and writing abilities among the students. By comparison, in some workshops PDLs seemed to overlook opportunities to draw on teachers’ experiences. For instance, in one session the lead PDL was observed attempting to describe a mathematics game she had never used. After several mistakes in her description, a teacher sitting in the front of the room said that she had used it often in her classroom. When the teacher attempted to correct the PDL, instead of asking the teacher to describe the game, the PDL moved to the next topic.

Whereas the researchers observed PDLs regularly incorporating teachers’ knowledge around instruction and management into the workshop sessions, little incorporation of teachers’ knowledge of content was observed. More generally, there was very little dialogue about math or science content in the sessions we observed, compared to discussion about instruction and classroom management.

Teachers’ existing knowledge was gauged in different ways. Of the eight workshops we observed, formal introductions with discussion of level of familiarity with the curriculum were done in two. But PDLs also gauged teacher needs by “walking around and talking to them.” We observed that most questions teachers posed to PDLs during PD seldom resulted in sustained conversations. Often times, responses were very brief and lacked exploration of concepts. In one observation, the researcher noted that although teachers had their hands raised to ask questions, the PDL continued with the lesson. In debriefs and focus groups, PDLs said that they usually felt constrained by time, but that they often followed up with specific teachers via email or telephone. Thus, it is possible that the pressure to get through the session outline or matrix limited PDLs’ ability to use teacher knowledge and experience during the course of PD.¹⁰

Role switching: In all the workshops observed, PDLs often switched roles between that of teacher (to model speaking to students) and that of colleague. The extent to which this practice is self-conscious on the part of PDLs is evidenced by the ways several PDLs described the dual role, without prompting by the researchers. For instance, during a focus group with science PDLs, one recalled from the previous year that some of the experienced PDLs role played “the kinds of personalities you’d have to deal with.” One said, “You go in and out of role—you kind of play the teacher role and your participants are trying to play the students and then you are teacher-on-teacher role. So you have to try to keep that balance.” Later, in the same focus group, a PDL said that sometimes she slides into role playing without being aware of doing so. Reflectively, she noted that she tends to take on the teacher-to-teacher role when discussing strategies and the teacher-to-student role when talking about a lesson. Another PDL said she bases the degree to which she role plays according to the needs of particular groups. One math PDL related

¹⁰ Participating teachers’ assessment of PD is beyond the scope of this evaluation. Thus we do not have data on whether teachers perceived that their engagement was limited.

the technique of having teachers take on the student role to the PDL Academy presentation on adult learning, noting that “you want them to take on the student role sometimes . . . he [the presenter] gave us strategies for doing that in ways that aren’t threatening or wouldn’t come across as disrespectful.”

Supports for PD delivery: PDLs and program stakeholders noted three main types of support, including: 1) oversight and provision of materials from OMS facilitators, 2) a network or community of PDLs and PDL planners, and 3) the reflection process. Each of these supports was established and modeled for PDLs during the PDL Academy. The supports were described as serving different purposes, including continued training of less-experienced PDLs, enabling PD provision, and gathering feedback to improve individual sessions and the program overall. Below we discuss each of these supports in turn and then discuss additional supports PDLs indicated would be useful.

Oversight and provision of materials by OMS facilitators. While stakeholders described the importance of their support role to PDLs, they were not specific about their goals for support. One noted that she was not sure what supports were available post-PDLA and others, representing both Math and Science, said that while ideally they would observe PD delivery, it did not happen very often. PDLs said they felt comfortable approaching OMS staff and said they appreciated reminder contact. In a focus group, PDLs noted that OMS staff members are available during PD sessions to answer questions and to handle difficult situations with participants. PDLs and stakeholders commented that the OMS support mechanism has improved as staff continuity increased. One noted, “This is the first year I worked with the same people for more than a year.” In addition, several PDLs commented positively on the consistency with which OMS facilitators provide materials for sessions, including outlines or matrices and other supporting resources. One PDL said, “Sometimes when I’m looking for specific reading materials to supplement, they have a library of math books, so I’ll call her [the facilitator] up and ask if I could borrow some books.”

Community of PDLs. In stakeholder interviews, PDL planners described a desire to foster a community or network of professional development leaders. (Indeed, this was articulated as a desired outcome for the PDL Academy.) Several PDLs described a network in which they felt comfortable contacting other practitioners who were familiar with their curricular materials. For some, this extended to vendors, university partners, and other PDLs who use the same curricula or kits. Some noted that co-facilitation provided a strong support for PD delivery. Several PDLs commented that they expanded their networks through follow-up after PD delivery.

Reflections. The reflection tool was intended to play a vital role in the development of PDLs, improving workshops through formative feedback, and as a management tool. One stakeholder noted that the “debrief is the only way . . . along with the evaluation forms, that we monitor PDLs.” In observations, researchers noted that in most cases, reflection sheets were not used interactively, but were distributed at the end of the workshop day and collected as teachers left the room. All PDLs said that they used the reflections to consider possible adjustments to their planning and delivery of PD. For example, during a workshop observation, a PDL said, “I have one clarification. On reflections, someone wrote that she was relieved to find that they did not have to do all the activities. You do need to do them all.” In addition to formal reflections, PDLs said that they reflected informally with supervisors and each other. One commented, “Most of my reflection takes place during informal conversations - often at lunch or immediately after the workshops. That reflection is very helpful to me.”

There was some concern about the usefulness of reflections. According to some stakeholders, reflections convey affect more than impact. One stakeholder noted, “Usually they are very positive because people are pretty happy and excited to be there . . . but we still are working on how do we know what people are really learning . . . Are we changing people’s knowledge as they engage in this?” Reflections did not always take precedence. The following stakeholder comment reflects what was observed in workshops: “We try to do some reflection at the end of the day, too, because it is important for them to reflect on what they do, but it depends on how many directions people are being drawn.”

Additional supports desired. In debriefs, PDLs told researchers that they were adequately supported. One noted, “We know that we have a fall back at every stage.” When asked what additional supports they would like to see offered, most PDLs were hard pressed to come up with suggestions. A few provided responses about training needs (described below). One PDL built upon the notion of professional community, suggesting that PDLs could work as coaches to provide structured PD follow up. She commented:

Maybe you have a little group, a little core. Each of us that have been experienced a long, long time have a little core group of teachers that we kind of mentor. We take their calls like a little hotline if they got stuff or email us if they have a question about things.

Making adjustments for future PD sessions: When asked what they would do differently with regard to PD delivery, PDLs drew on their own reflections and written evaluations from teachers, noting several kinds of changes they would make to the workshops. Most changes related to logistics, pacing, organization, and incorporation of elements of the PDLA. A few PDLs noted that they were not able to reach their goals because of pacing issues. One PDL noted that they only had 15 minutes for an activity that was “slotted” on the matrix for 45 minutes. The tension between exploration and effectively managing time for ample coverage of all areas was a recurring issue. Some PDLs said that they wish they had incorporated more modeling or had been more thorough about providing guidance for setting up labs, but felt that they needed to keep moving.

Others said they would build in additional planning time to ensure materials were complete and that sequencing was logically organized. Time for planning and foreseeing issues was also a challenge. In one case, PDLs noted that they had the wrong science kits. In a math session, PDLs broke teachers into three groups, each of which was asked to develop a presentation on one part of a sequence of lessons. During their report out, teachers in groups 3 and 4 had difficulty because they did not know what would be covered in the first two segments until it was presented.

Finally, a few PDLs said they wanted more training. One math PDL, reflecting on a presentation during the PDL Academy that focused on adult learning, said that she would like to incorporate more adult learning, but was not sure how to do so. Some PDLs expressed an interest in deeper content training, including additional courses in their subject area. Others said they would like training from vendors. One PDL commented: “They wrote the curriculum. They know the philosophy like the back of their hands, so it would be nice to still have that support, especially for new PDLs coming in.”

Other issues that affect PD delivery: There were three issues that came up in the course of PD workshop implementation, all beyond the control of the PDLs, which had a notable effect on PD delivery: participant absence, interruptions during PD delivery, and scheduling complications.

In observations, researchers noted a considerable number of absences from one day to the next. During one observation, for instance, an observer saw that six participants who had not been present the previous day replaced seven that had been present, indicating that at least 13 did not attend the full workshop. In addition, researchers noted numerous interruptions during workshops. Most interruptions were by teachers entering sessions late, often as much as an hour after the session had started. Other interruptions included announcements, facilitator visits including overviews of facets of the CMSI philosophy (for instance, keeping to the pacing guide), and delivery of materials. In two cases, the PDLs were put at a disadvantage because of last-minute changes. In one science PD session, the PDLs were split up and placed in separate classrooms, which resulted in both PDLs and other staff moving from one room to the other to borrow materials and notes. In another science PD session, the PDLs were provided with different kits than those they had prepared for the PD. As a result, they had to improvise their PD delivery to some extent.

Questions for Reflection

- Given the programmatic goals of standardization and provision of high-quality PD, are the reflection, monitoring, and evaluation processes and tools currently being used adequate to the task of assessing the quality of PD delivery and relating it to PDL program implementation?
- As the PDL program expands and becomes increasingly complex, how might supports be adjusted so that they best meet the needs of the program?
- If fidelity of implementation in terms of the structure of PD delivery is seen as central, what can OMS do to ensure that PDLs are able to deliver PD such that the program meets its short-term goals?
- In what ways might such logistical factors as splitting up co-presenters or periodic interruptions affect the quality of the PD delivered? The short-term goals of the PDL program?
- Is it possible and desirable to install a continuous feedback cycle that can assess delivery quality? If reflections are central to the improvement process, how can more time be allotted so that the reflection process and tools are used as planned?
- Are there ways of incorporating documentation and reflection practices into program activities so that they are used consistently while minimizing the strain on time and personnel?

B.2.c. Cross-Cutting Themes

In this section, we offer a broad, programmatic analysis of findings by drawing on themes that were relevant to or recurrent across multiple program components. Analysis of data clustered from across program components led to the identification of five cross-cutting, programmatic themes:

- standardization of the PDL program within and across Math and Science
- fidelity of implementation versus faithfulness to purpose
- uses of continuous feedback
- differentiation of program roles and role supports
- sustainability of the PDL program

Two caveats are in order regarding the discussion of these themes that follows. First, the themes of standardization, roles and role supports, and sustainability were also explored at length in the Mid-Year Progress Report, where we focused on the perspectives of program stakeholders. That discussion is summarized below. Secondly, discussion of some cross-cutting themes includes identification of discontinuities or inconsistencies in programmatic areas. These discontinuities are not necessarily indicative of shortcomings of the program. Rather, they signal opportunities for revisiting plans and activities to refine aspects of the PDL program itself or possibly the PDL program's theory of change.

Standardization of the PDL program across Math and Science: As was discussed at length in the Mid-Year Progress Report (May 15, 2009), stakeholders concurred about the broad importance of standardizing the program's key activities, structure, and content. They also identified areas that resist standardization, in most cases related to differences in Math and Science program content structure (e.g. year-long grade level curricula versus semester-long kits). Since last year, both Math and Science have moved toward standardization by borrowing from each other. For instance, Math has increased its direct focus on adult learning during their Academy, following Science's model; and Science has increased the experienced PDLs' role as a mentor of newer PDLs, following Math's model. Observations, review of program documents, and feedback from PDLs provide evidence that the basic format, content, and logical underpinnings of the Math and Science sides are quite comparable, which is why the PDL Program Logic Model is functional for both. That said, there are ways in which Math and Science Academies and PD delivery models continue to differ to some extent in terms of their structure, content, and supports for PDLs.

It is difficult to determine the potential impact of the differences noted. For instance, it is difficult to determine if and how science versus math PDLs' understanding of adult learning may differ as a result of differences in the respective presentations during their PDL Academies (described earlier in this report). It would be even more difficult to determine how either presentation might impact PDLs' ability to facilitate adult learning of particular OMS curricula. Furthermore, while PDLs in Science felt well-equipped and spoke highly of the two-hour common PD delivery preparation with a supervisor, it is impossible to probe more deeply about the impacts of Science and Math's differences. In addition, the instrumentation for, processes surrounding, and use of tools for reflection and internal assessment differed for Math and Science, further limiting comparisons.

Whereas last year the focus of discussion among stakeholders was on standardizing the PDL program *across* Math and Science, this year, the issues of standardization also came up as an issue *within* Math. One stakeholder identified three areas of potentially greater coherence: the processes for training PDLs, the overall message, and "the tools that we offer and the resources we have to support our PDLs. So for example, reflection tools or assessment tools for our program ... we could use similar tools to help support our PDLs." This year's evaluation was not extensive enough to systematically examine whether or not greater standardization across Math curricula was achieved, or whether such changes were feasible.

Through observations and interviews with PDLs, it became apparent that there were varying degrees of consistency or standardization in many PDL program activities that were common to both Math and Science. Thus, the evaluators suggest that the concept of standardization could be applied systemically to consider which components of the PDL program should ideally follow a "standard" or "consistent" set of practices, and which components may be more effective if implemented with some degree of variability or flexibility.

For instance, while many facets of recruitment were effectively standardized across math and science, (as discussed in the Recruitment section above), evaluators learned that a range of modes of recruitment are often deployed and recruitment is undertaken by a range of both designated and "unofficial" recruiters. According to program planners, a key measure of effective recruitment is the retention of PDLs in the PDL program. Since the experienced PDLs we interviewed were recruited in various manners, yet all appeared to be effective and invested PDLs, it is not clear that the range of recruitment practices is necessarily a problem. One way of determining whether some or all recruitment practices are more or less effective and worthy of standardization might be by maintaining a longitudinal database of information that follows PDLs from recruitment through their years in the PDL program.

The issue of standardization was also noted to be an issue in PD delivery -- for instance, in the degree of consistency with which PDLs use workshop outlines and matrices, or the amount of time new PDLs spend observing before facilitating PD. Again, it is not clear that these areas of variability are intrinsically problematic. For example, some experienced PDLs and stakeholders noted that new PDLs vary considerably in terms of their readiness to "jump right in" and co-facilitate PD. Perhaps what is more important than standardizing the steps toward co-facilitation is standardizing the process by which the determination of readiness is made and then assessed once PD has been delivered.

In conclusion, these and other areas of inconsistency in program implementation do not necessarily signal a shortcoming with the PDL program. Rather, they signal programmatic areas that warrant continued discussion and planning for an optimal and informed balance between consistency and variation.

Fidelity of implementation versus faithfulness to the purpose: Comparison between the expectations and intentions of PDL planners and stakeholders, and observations of components of the PDL program indicated areas in which there were gaps between the intended purpose of specific processes and activities and the degree to which plans were carried out exactly as prescribed. In several instances, this distinction appeared to be tied to conflicting messages about the need to implement with fidelity to the process (sometimes referred to as "fidelity of step") on the one hand, and the notion of implementing with fidelity to the purpose on the other. The evaluators have framed this section in terms of that distinction with the recognition that effective use of CMSI curricula can be thought of as being based precisely in achieving a balancing act between these two kinds of fidelity – faithfulness to process and faithfulness to purpose.

This inconsistency in message and understanding was noted across components of the PDL program. For instance, with regard to PD delivery, some PDLs expressed in debriefs that it was important to follow the workshop curricula step-by-step, while others said they treated outlines as rough guides and believed the goal was to help teachers take ownership and grasp concepts. A comparable inconsistency was detected in the message communicated about implementing the CMSI curricular programs, both during the Academy and during PD delivery. During some of the introductory sessions of the Academies, for instance, presenters emphasized the importance of conveying to teachers that they follow the CMSI curricula as presented, while also encouraging the prospective PDLs to draw on their experiences as users to offer teachers examples of how to adapt the curricula to their particular classrooms and school contexts.

Similarly, we observed some PD sessions in which PDLs regularly told teachers that it was crucial to remain loyal to the steps in the program, or to follow the teachers' guide. In other instances the PDLs balanced a message about including each key component of the lesson with insight on how to adapt lessons to fit the particular needs of a classroom or when supplies and materials were not available. (In one PD session we observed, the PDLs communicated one message, and an OMS facilitator who entered the workshop mid-stream conveyed the other message.) As noted in the next cross-cutting theme, continuous feedback processes were seldom used as planned, but often served an important role in decision-making.

Use of continuous feedback: Potentially, the processes of internal assessment and reflection that are to be put in place as one of the short-term goals will generate information that can contribute to identifying possible modifications to those goals or to the programmatic assumptions on which they are based. Both Math and Science sides articulated a short-term goal of regular reflection by PDLs on Academy activities and of teachers on PD delivery activities. Stakeholders also expected to be involved in feedback and internal evaluation themselves through progress monitoring.

The reflection tool was intended to play a central role in improving PD workshops and the Academy through formative feedback and as a management tool. Stakeholders commented that because time did not permit for direct monitoring of PD sessions, reflections and debriefs were the one structured method used to monitor. There was some concern about the usefulness of reflections. According to some stakeholders, reflections express affect more than impact. Moreover, continuous feedback was not consistently treated as a priority during the Academy or PD workshops. For instance, in workshops, reflections were distributed at the end of the workshop day and collected as teachers left the room. Nonetheless, PDLs said they used the reflections to adjust to their planning and delivery of PD.

In addition to formal reflections, PDLs said that they reflected informally with supervisors and with other PDLs through co-facilitation. Stakeholders also identified meetings focused on progress monitoring and time for reflection as an important support for facilitators and program planners. However, while meetings for PDLs, facilitators, and program planners were budgeted into the PDL program for this year, it has been difficult to hold the meetings on regular basis due to challenges of time and scheduling. Thus, at the core of this theme is the consistency with which data are generated and analyzed and the prioritization of this kind of activity in the general scheme of PDL activities.

Differentiation of program roles and supports: Stakeholders defined the PDL role this year in terms comparable to last year. Notable is an expansion of "leadership," in particular for experienced PDLs who are being offered more opportunities to participate in Academy planning, presentation, and support of new PDLs. Roles of PDLs, facilitators, and program planners are interactive. An assumption is that as responsibility is shared with experienced PDLs, retention will be increased and the capacity of the program will be improved.

As experienced PDLs take on broader leadership roles, facilitators are freed up to move into new leadership roles around program planning and PDL support. At both the PDL Academy and the PD delivery sessions, evaluators observed the OMS facilitators engaged in a wide range of activities potentially requiring different kinds of communicative and organizational skills than their prior roles as PD providers and OMS program support staff. Meanwhile, program planners have redefined their role from being the primary program planners to being leaders

of a team of facilitators, further supporting facilitators' participation in planning the PDL Academy and PD provision.

In practice, PDLs responded to increased responsibility in their roles in different ways. For instance, in terms of co-facilitation, some experienced PDLs related to the mentoring role in positive terms and appeared to embrace the role; others described co-facilitation in terms that emphasized reciprocal learning between the experienced and new PDL, rather than in the hierarchical terms of a mentor/mentee relationship. Finally, as noted in the previous section, a few PDLs indicated that the mentorship was an imposition.

Two programmatic issues can be seen to emerge in the ongoing development and redefinition of the key PDL program roles. The first issue is that of supports. As experienced PDLs, OMS facilitators, and PDL program planners take on new roles, it bears considering whether the supports they are receiving are commensurate to the new or additional activities they are taking on. The second issue is that of role flexibility versus "standardization." For instance, the range of views that experienced PDLs offered with regard to the additional responsibility of mentoring new PDLs could be approached programmatically as calling for the standardization of experienced PDL responsibilities. Alternatively, it could suggest that the process of supporting experienced PDLs should include crafting individualized roles, such that the PDLs can select the kinds and extent of additional responsibilities they are interested in taking on. One programmatic challenge is how to support the leadership development of PDLs without making additional demands on some PDLs that lead them to leave the program.

Sustainability of the PDL program: For most stakeholders, the program's sustainability is based in the retention of active PDLs. To address this, stakeholders sought to develop a sense of PDL community, to offer differentiated PD, to raise the prestige of the PDL program, and to assess programmatic issues with PDL input. Stakeholders believe that turnover is affected by OMS' drawing from the same pool of teacher leaders for PDL and other district needs, and the tendency for teacher leaders to take on numerous leadership roles.

Our conversations with PDLs provided initial feedback about the implementation of these activities and their effects. For instance, PDL planners' desire to foster a community of PDLs was echoed by PDLs who described a network in which they felt comfortable contacting practitioners and OMS staff who were familiar with their curricula or kits. This network included PDL planners and facilitators, other PDLs, teachers in the field with varying levels of experience with the curricula, vendors, and university partners. Less certain is the degree to which efforts such as "differentiated" PD at the PDL Academy for more experienced PDLs, mentoring of newer PDLs, and additional tasks are effective at retaining PDLs. While some PDLs felt the additional responsibility made them feel vitally connected to their role, others described the additional activity as an imposition beyond what they expected to do with the program.

The other programmatic component or role that was identified as key to the program's sustainability was the PDL facilitators' role as program capacity builders. The significance of this role signals the programmatic importance of defining and supporting that role.

Questions for Reflection

- As Math and Science sides continue to work toward standardization of the PDL program, what kinds of data will be needed to make decisions about what facets of the program warrant standardization and what facets are better implemented with a degree of flexibility or variability?
- As PDL program roles continue to evolve and become re-defined, what kinds of data are needed to determine whether role expectations are appropriate and/or are effectively supported?
- Given the challenges of balancing the programmatic and curricular emphases on fidelity of implementation versus faithfulness to purpose, is this distinction and how to convey it adequately explored in the training of PDLs? In discussions among PDL planning teams?
- Can reflection and evaluation practices currently in place be modified such that data required to address the issues identified in the above reflection questions can be gathered without taxing the different PDL program roles? Are additional resources needed to implement continuous feedback processes?

APPENDICES

Appendix A: PDL Program Theory of Change Logic Model and Worksheets

Appendix B: Worksheets for Revising CMSI PDL “Blueprints” or Action Plans

Appendix C: Evaluation Data Collection Protocols

1. PDL Program Stakeholder Interview Protocol
2. CMSI PDL Focus Group Moderator’s Guide
3. CMSI PDL Leadership Academy Observation/Debrief Template
4. Professional Development Observation/Debrief Protocol

Appendix A
PDL Program Theory of Change Logic Model and Worksheets

PDL Program Logic (Theory of Change) Model and Worksheets
Prepared by the PRAIRIE Group 091509

This document is comprised of two parts that work together to represent the PDL program’s logic, program design, and internal documentation and review processes.

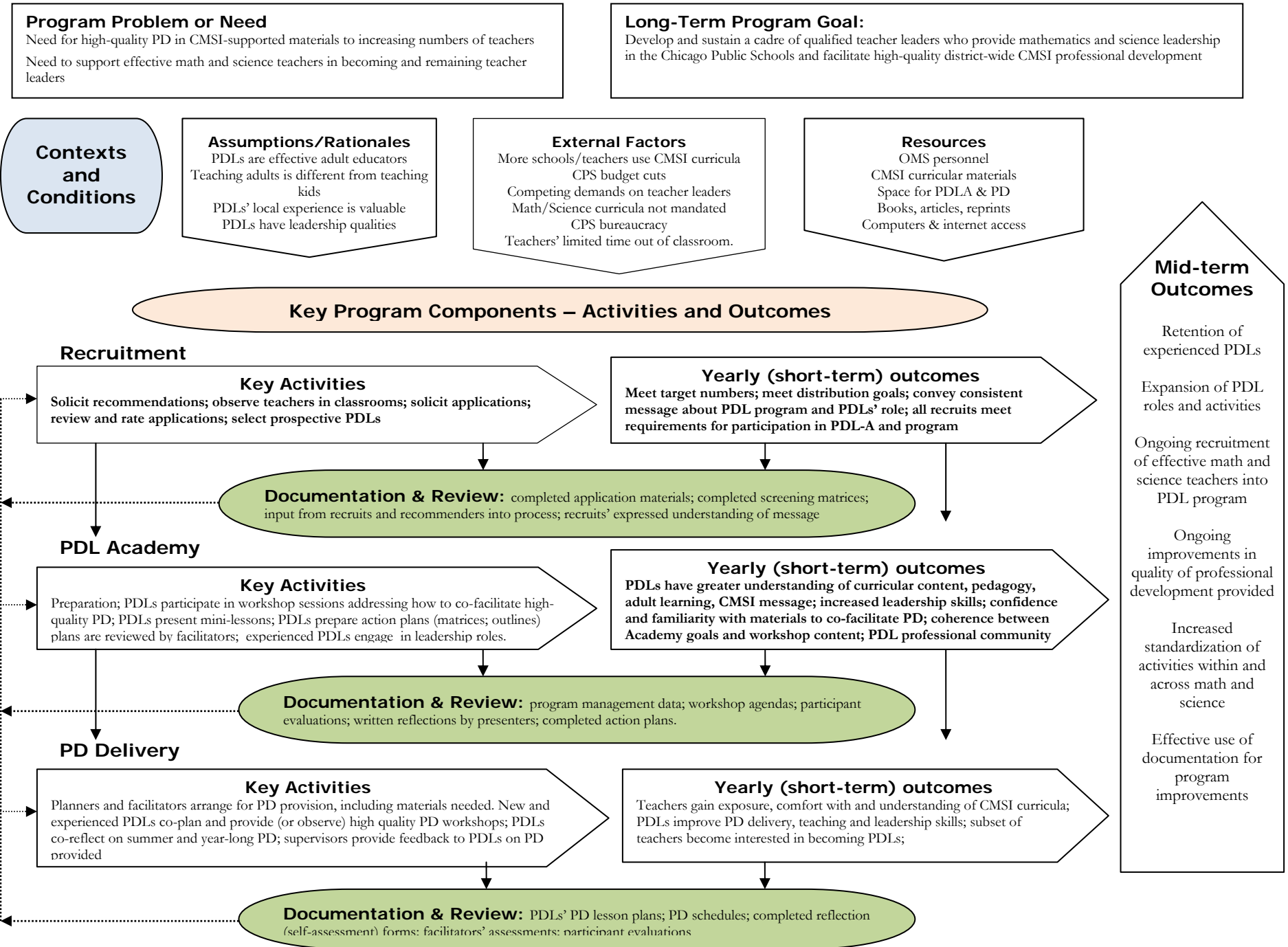
Part One is a one-page “theory of change” logic model. The logic model combines graphic elements and text to summarize the PDL program as follows:

1. the logical connections between PDL program and the broader context;
2. the developmental flow from one program component to the next in terms of activities and yearly (short-term) outcomes;
3. the causal flow from short-term, yearly outcomes to mid-term outcomes to long-term program goals;
4. the feedback loop in which information for program documentation and review is used to reflect on and modify program components.

Part Two consists of a series of worksheets in which the elements of the program’s theory of change are elaborated in greater detail in order to describe the program’s logic more concretely. The worksheets include the same elements as the one-page logic model, but the program component elements are organized differently. Specifically, instead of being separate elements, each program component’s activities, outcomes, and related documentation and review activities are included in a single worksheet. This is intended to provide a detailed mapping of how the PDL program’s activities relate to desired outcomes and how, in turn, those activities and outcomes are meant to be documented and reviewed (evaluated or assessed).

It is important to emphasize that this document, like all logic models, is a “living” document that is subject to ongoing modification and improvement. In this version of the model, the evaluators have highlighted sections of the worksheets that bear further exploration, in particular pertaining to outcome targets. This is based on the understanding that program planners are in the best position to make these determinations appropriately.

PDL Program Theory of Change Logic Model



Program Logic Model Worksheets

Statement of Problem or Need

*What are the key problems or needs the PDL Program aims to address?
(These should be more specific than the overarching problems or needs addressed by the CMSI.)*

CPS preK-8 teachers are not uniformly prepared to teach math and science in their school contexts using CMSI supported materials (curricular programs, science kits), at the same time that an increasing number of CPS schools are adopting CMSI supported curricular programs.

There is a need for ongoing, consistently high-quality professional development in CMSI-supported materials to a growing number of teachers in the District with limited personnel and monetary resources.

There is also the problem of a lack of support for effective teachers in math and science to become and remain teacher leaders, and an unevenness in this support across CPS areas.

Program Logic Model Worksheets Contexts and Conditions

Program's Guiding Rationales and Assumptions

Describe the “rationales” (beliefs) and assumptions you have about how change occurs in the areas targeted by the PDL program, and for the PDL program’s participants -- teachers, teacher leaders, for instance --based on research, experience, or best practices.

Why do you expect that the program as planned will produce the desired short and long term results?

1. Effective/strong teachers from CPS schools can be effective trainers of teachers. (But not all good teachers are good teacher educators.)
2. The skills and dispositions for teaching children differ in some ways from those for teaching adults. Similarly, how adults learn differs in some ways from how children learn.
3. The more localized the PD, the more effective it is; i.e., when PD is based in the experiences of local teachers and facilitated by those teachers, it is more effective. This is because (among other things) the teachers buy in to the PD experience more, and the PD providers can offer more meaningful and relevant information to the teachers.
4. Leadership qualities important for a PDL can be identified, and include: self-confidence, desire to push selves, self-reflect, be open to learning.
5. District-based PD is an effective component of the larger PD process, and is important to conveying the CMSI message, providing teachers with exposure to and the ability to become comfortable with the new materials.
6. Two years of using the CMSI curricular program, and 60 hours of professional development in the program, is usually enough experience to prepare a teacher to start to become a PDL.

What evidence (e.g. research, experience, best practices) does the PDL program draw on to support its guiding beliefs or rationales?

Experience: past years of the PDL program. For example, comparisons between PD participants’ responses to PD provision by external partners (vendors and university partners) versus PDLs (CPS teachers); quality of PD provision by PDLs.

Best practices:

Research:

Program Logic Model Worksheets Contexts and Conditions

External Factors

“External factors” are those conditions outside the program itself that influence program activities or results. External factors may include institutional structures (district level, city level) socio-cultural climate (beliefs and values related to the program), economic conditions, political climate, etc.

External Supports

*What are external supports? In what ways do external conditions or contexts **support or facilitate** your program's activities?*

1. Increased number of schools using CMSI curricula: facilitates program's activities by gradually increasing the pool of potential PDLs as more teachers use and become effective at using these curricula for math/science.
2. District's support for Office-level professional development programs/approaches
3. Ongoing partnerships with external vendors and university partners – e.g., for teacher endorsement
4. Ongoing investment by the district in increasing students' academic achievement in math, and increasing investment in math education of students
5. Ongoing investment (though less than math) in science
6. External evaluation: facilitates feedback loop from program implementation to reflection to revision
7. Technical support sessions with evaluators: facilitate building of coherence within program
8. Middle grades specialization policy (related to partnerships for teacher endorsement)

External Challenges

*What are external challenges? In what ways do external conditions and factors pose **challenges or limitations** to your program's key activities and their positive outcomes?*

1. Increased number of schools using CMSI curricula: challenge is this produces greater demand/need for training/PD for teachers
2. District-wide budget cuts
3. Current reorganizing and reprioritizing of District by CEO
4. Competing demands on experienced/effective teachers
5. Decentralized decision-making in district (curricula not mandated)
6. Restrictions on teachers' time out of classroom
7. Math and science continue to be less of a District priority than literacy

Program Logic Model Worksheets Contexts and Conditions

Program Resources

What resources does the program depend on in order for the activities to be carried out as planned and lead to the desired outcomes?

Material Resources (supplies, books, curricular kits, etc):

1. Curricular materials
2. Books/articles for PDL training
3. Reflection tools, planning materials, program planning and evaluation tools

Human Resources (staff/personnel):

1. OMS personnel for recruitment of PDLs (facilitators, CWS's, experienced PDLs);
2. OMS personnel for organization of PDL Academy, support of PDLs, organization and supervision of PD (and some provision of PD)
3. Area personnel for recruitment of PDLs
4. Vendors, university partners, and consultants who participate in PDLAs and PD (i.e. university professors who provide content lessons during summer PD)
5. Teachers prepared to be PDLs

Funding Resources:

1. Funds to compensate teachers for their time being trained and providing PD
2. Funds to run the program (pay for speakers, consultants, for instance)

Technological Resources

1. technology for PDLA and PD provision (computers, PowerPoint presentations); internet for ongoing PDL communication

Space Resources:

1. Space to hold the PDL academies; space for the PD sessions

Other Resources:

1. **TIME:** PDL planners need time to adequately plan, develop internal monitoring and assessment practices, reflect, modify program.

**Program Logic Model Worksheets
Key Program Components**

Recruitment: Activities, Documentation, Outcomes, and Evidence

<p>What are key planned activities for PDL participant recruitment? <i>(Be sure to describe activities as “SMART objectives”)</i></p>	<p>How will you document actual activities to determine if, how, and to what extent activities took place?</p>	<p>What desired outcomes or results should each activity contribute to? <i>(Be sure to describe outcomes as “SMART” objectives. Some activities may contribute to the same outcomes, or to several outcomes)</i></p>	<p>What are indicators of successful outcomes? How will you gather evidence of actual outcomes?</p>
<p>By (date) PDL program planners and OMS leadership will identify recruiting needs for PDL academies</p> <p>By (date) PDL planners, in consultation with other OMS staff, will identify prospective PDLs</p> <p>By (date) PDL planners will contact current PDLs ...</p> <p>By (date) all prospective PDLs (and current PDLs?) will receive a formal invitation to apply to the PDL Academy</p> <p>By (date) planners will review all PDLA applications based on screening criteria</p> <p>By (date) OMS facilitators or others (Area coaches? Experienced PDLs? CWS's?) will observe potential PDLs in their classrooms as part of the screening process.</p> <p>By (date) accepted PDLs will receive invitations to participate in the PDLA.</p>	<p>Review of current personnel skills set and experience levels to identify underrepresented areas (grade level, geographic distribution, PD levels, availability to conduct PD during school day.</p> <p>Disaggregated counts by program</p> <p>Applications, resumes, PD attendance data, checklist of criteria, observation document (classroom observation guide), recommendations (e.g., email correspondence) [2 matrices]</p> <p>Overall: Feedback regarding the entire process through recommendations from participants and prospective invitees.</p>	<p>Meet target for the academy</p> <ul style="list-style-type: none"> • Maximal entrants into the process • Minimal attrition <p>Number of recruits is proportional to each program area's needs</p> <p>As a result of targeted recruitment, the pool of prospective PDLs will have some representation across the district and recruiting needs are met</p>	<p>Number of prospective PDLs accepted into the academy</p> <p>Number of prospective PDLs accepted fills scheduling, area, content, grade level, experience level, etc. needs</p> <p>Exit survey and informal (not documented) feedback</p>

Program Logic Model Worksheets Key Program Components

PDL Academy: Activities, Documentation, Outcomes, and Evidence

<p>What are key planned activities for the PDL Academy? <i>(Be sure to describe activities as “SMART objectives”)</i></p>	<p>How will you document actual activities to determine if, how, and to what extent the activities took place?</p>	<p>What desired outcomes or results should each activity contribute to? <i>(Be sure to describe outcomes as “SMART” objectives. Some activities may contribute to the same outcomes, or to several outcomes)</i></p>	<p>What are indicators of successful outcomes? How will you gather evidence of actual outcomes?</p>
<p>Preparation for the Academy by planners and experienced PDLs</p> <ul style="list-style-type: none"> Logistics (date, time, location) Identification of program content Selection of speakers Selection of vendors Procurement & allocation of resources (gifts, snacks, materials, supplies) Generation of tools (e.g., rubrics) Development of database of PDLs and recruits <p>PDL training workshop activities to support standards-based teaching practices (differentiated by level when appropriate)</p> <ul style="list-style-type: none"> All PDL-A participants will participate in all training activities Articles/books/videos are shared with PDL-A attendees All PDL-A participants will prepare and plan to co-present PD All PDL-A participants will produce an action plan Presenters facilitate workshops All PDL-A participants will participate in discussions and reflections <p>PDL-A attendees provide feedback on the Academy</p> <ul style="list-style-type: none"> Daily evaluation forms are completed that address quality of activities and desired outcomes <p>PDL-A planners reflect systematically on Academy</p>	<p>Attendance sheets</p> <p>Action Plans</p> <p>Training materials and presentations (by PDL-A presenters)</p> <p>Evaluation components -- external evaluation data, reflective tools prepared for the PDL-As, conversation, observation notes on the following:</p> <ul style="list-style-type: none"> Feedback from PDLs regarding the content and format. Disaggregated review of teachers trained according to curricular and area needs. 	<p>By the end of the PDL Academy:</p> <p>Attendees complete all five days and relevant sessions of the math PDL-A; attendees complete all 3 days of the Science PDL-A</p> <p>The percentage of PDL-A completers is proportional to each program area's needs.</p> <p>As a result of the PDL-A, new participants will be prepared and feel confident to participate as observing or co-presenting PDLs in summer PD.</p> <p>As a result of the PDL-A, experienced PDLs will commit to presenting or co-presenting summer and school-year PD.</p> <p>As a result of the PDL-A, all participants will have an increased understanding of content and pedagogy in the program they will support.</p> <p>As a result of PDL-A, all participants have a deeper, practical understanding of how to support adult learning.</p> <p>As a result of the PDL-A, the professional community of PDLs will be extended and maintained.</p>	<p>Number of teachers completing the PDL-A</p> <p>Percentage of PDL-A attendees completing all sessions (compared to previous years)</p> <p>Review of PDLA completers by area, content, grade level, experience level, etc. needs</p> <p>Scores on outcome assessment</p> <p>Perceptual data (self-report) from feedback tools</p> <p>Feasibility of PD action plans (rubric, matrices, outlines)</p> <p>Extent of completeness of schedules for summer PD</p>

**Program Logic Model Worksheets
Key Program Components**

PD Provision: Activities, Documentation, Outcomes, and Evidence

<p>What are key planned activities for PD Provision? <i>(Be sure to describe activities as “SMART objectives”)</i></p>	<p>How will you document actual activities to determine if, how, and to what extent the activities took place?</p>	<p>What desired outcomes or results should each activity contribute to? <i>(Be sure to describe outcomes as “SMART” objectives. Some activities may contribute to the same outcomes, or to several outcomes)</i></p>	<p>What are indicators of successful outcomes? How will you gather evidence of actual outcomes?</p>
<p>Scheduling: By (date), (all) experienced PDLs will be scheduled to provide PD during summer workshops</p> <p>Workshop planning and preparation: By (date), all presenting and co-presenting PDLs will have lesson plans and materials ready for the workshops they will facilitate</p> <p>Workshop co-facilitation: All PD workshops will be facilitated by a presenter, a co-presenter who are experienced PDLs, and observed by a new PDL</p> <p>PDL reflection activities: All PDLs will reflect together and with their supervisor on the PD facilitation process and identify areas where successful as well as challenges to be addressed.</p>	<p>PD schedules; any notes from planners’ meetings</p> <p>PDLs’ PD lesson plans, materials</p> <p>Completed reflection forms; supervisor assessment forms; participant evaluations</p> <p>Completed reflection (self-assessment) forms;</p>	<p>All PDLs who are ready and willing to provide PD have an opportunity</p> <p>attending teachers receive high-quality PD</p> <p>attending teachers express increased understanding of and confidence around the curricular program taught</p> <p>PDLs demonstrate and ability to co-facilitate effectively</p> <p>new PDLs have the confidence that they will be ready during the school year or following summer to co-present effectively</p> <p>experienced PDLs have increased confidence in their ability to co-facilitate effectively</p> <p>experienced PDLs express the intention of continuing to serve as PDLs.</p> <p>All PDLs identify areas of strength and areas where they can improve their workshop facilitation</p> <p>All PDLs improve their own teaching and leadership skills.</p>	<p>Extent to which PD delivery emulates best practices</p> <p>Quality of lesson plans and delivery, as identified by supervisors and PDLs themselves</p> <p>Satisfaction of participating teachers; teachers’ identification of new content and pedagogical knowledge; teachers’ comfort</p>

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Math Side

GOAL 1 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader demonstrates standards based teaching practices.	6 hours	Be observed teaching specific lesson by an OMS facilitator <ul style="list-style-type: none"> • Engage in pre and post conference with PDL coach of facilitator • Reflect on the lesson • Engage in analysis of student work • Agree to videotaping of lesson (Optional) 	Classroom observation Student work Reflection on lesson Conferences	Classroom observations, conferences with coach, and reflections reveal evidence of standards-based teaching.
PRAIRIE FEEDBACK					
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Math Side

GOAL 2 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader demonstrates mastery of mathematics content and pedagogy	54 hours	Attend and participate in grade level professional development related to specific instructional materials Complete a reflection for each module/unit	PD attendance data	
PRAIRIE FEEDBACK	Science has pedagogy and content broken apart. Would that be beneficial to do here, too? Or should science combine them? It depends on whether you see the two as being achieved in tandem, and through the same activities, perhaps.			Again, is attendance a sufficient measure of mastery? How might mastery actually be measured? Same issue as with science. With what data can “mastery” actually be assessed?	
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Math Side

GOAL 3 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Demonstrates a deep understanding of grade level/s or units within specific instructional materials	54 hours	Attend and participate in grade level professional development related to specific instructional materials Completes reflection for each module/unit	PD attendance data	
PRAIRIE FEEDBACK				Same comment as above. How is a “deep understanding” measurable? Perhaps part of the answer rests in the kinds of activities listed—for example, reflections for each module. Are these reviewed for satisfactory quality?	
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Math Side
GOAL 4 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader demonstrates leadership capacity in mathematics education.	Time varies	Professional development leader participates in extended learning opportunities Algebra qualified National Board Certification in math Degree in mathematics education Analysis of student work in PDL academy Middle school math endorsement Facilitates professional development at area level Mentors pre-service teachers Presents at state or national conferences	1. Agenda 2. Letter 3. Artifact of presentation	
PRAIRIE FEEDBACK	As with mastery, it will be important to have a working definition of “leadership capacity.” Also, do they demonstrate the capacity, or the actual leadership?		Some of these activities seem to be more closely related to content than to leadership capacity.	1.&2. What are the agenda and letter? How are the sources of evidence of leadership capacity 3. Are coaches and facilitators equipped to make assessments of individual PDL leadership capacity? If so, perhaps there needs to be some specification of how that capacity can be determined.	What kind of indicators will depend on clear articulation of what leadership capacity looks like
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Math Side

GOAL 5 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader will plan and facilitate high-quality professional development	12 hours 12 hours planning 12 hours facilitating	Observe PD session with particular attention to the moves of the facilitator and the outline Co-plan PD with experienced leader Reflect on summer PD with mentor Participate in debriefing of PD session Professional development leader supports/provides professional development during the 2008-2009 school year	Reflective observation tool Planning hours Evaluation forms Reflective tools	Quality of PD plans and delivery of PD is consistently “high”
PRAIRIE FEEDBACK				Are any of these sources capable of getting at the level of quality of the PD? Is there a way to get at individual improvement in quality over time?	It will be important to articulate the qualities of “high quality” PD facilitation and PD plans
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Math Side
GOAL 6 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader understands adult learning.	12 hours 6 hours 12 hours planning 12 hours facilitating Time varies	Attend leadership academy Engage in discussion and analysis of proficient teaching of mathematics Plan and implement PD workshop mini-session Analyze student work and provide feedback to students with GPSA Analyze assessment sources within the instructional materials and connections to standardized assessments Observe PD session with particular attention to the moves of the facilitator and the outline Co-plan professional development with experienced leader Co-facilitate a professional development session for new users with an experienced leader	PDL Academy attendance data PDL Academy reflections Reflective observation tool Artifact from presentation*	
PRAIRIE FEEDBACK	Is it adequate that the understand adult learning, or do they have to demonstrate application of that knowledge?			*Again, is there a way to get at some of this through additional methods that are not self-report?	
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Science Side
GOAL 1 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader demonstrates standards based teaching practices.	6 hours	<ol style="list-style-type: none"> 1. Classroom observation 2. Grade-level discussions 3. Area collaboration** 	<ol style="list-style-type: none"> 1. Student work and reflection about science lessons. 2. Observation with use of the Classroom Observation Guide 3. Agendas from grade level discussions around specific science lesson, student learning and teaching strategies 	<p>classroom observations and student work reveal PDLs demonstrate standards-based teaching practices.</p> <p>grade-level agendas consistently relate lesson to selected strategies</p>
PRAIRIE FEEDBACK	Is this measured using the COG?		<ol style="list-style-type: none"> 1. Does this refer to an OMS facilitator observing the PDL teach? Or the PDL observing other teachers? 2. Are these discussions the PDL leads or participates in? 3. What might this look like or consist of? 	<ol style="list-style-type: none"> 1. How is this student work being checked? Through observation? Or a separate process? By whom? Is there a rubric? 3. Is there a rubric for assessing the agendas? Is the agenda adequate or should the meeting be observed? **What is evidence for area collaboration? 	Above indicators would have to be modified if the sources of evidence change, or if the demonstration of standards-based teaching practices is made more specific.
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Science Side
GOAL 2 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader demonstrates mastery of science content.	12 hours	Facilitates professional development session Participates in Teacher Leadership Institute Endorsement in science National Board Certification	Attendance verification Science endorsement University coursework National Board Certification	[While indicators of completing activities, such as certification, will indicate the activities were completed, will they be indicators of accomplishing the goal ? What would that look like?]
PRAIRIE FEEDBACK	How is “mastery” defined? What would it look like? Are there degrees of mastery?			Do the above demonstrate mastery? Or are you assuming that completion of activities will necessarily lead to “mastery”? These are all about training, yet some of the activities relate to observable actions or actions that can be articulated. It seems that mastery is more closely related to successful PD sessions facilitated than the sort of prerequisites listed.	If indicators are going to reflect the goal, and you include activities related to facilitating lessons, then you might have an indicator like “PDL demonstrates mastery of science content through PDL sessions.”
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Science Side

GOAL 3 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader demonstrates mastery of pedagogy.	12 hours	Facilitates professional development session Participates in Teacher Leadership Institute Endorsement in science National Board Certification	Attendance verification Science endorsement University coursework National Board Certification	
PRAIRIE FEEDBACK				Is completion of university coursework tantamount to mastery of pedagogy? Again, it seems that elaboration of the PD lesson and observation are better sources of mastery.	
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Science Side

GOAL 4 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader participates in extended learning opportunities.	24 hours	Enrollment in university coursework Present at a state or national convention Facilitate area professional development Participate in national board certification process	Attendance verification Science endorsement University coursework National Board Certification	Indicator could be simply that participated. Or it could address the quality of participation?
PRAIRIE FEEDBACK	is participation alone an adequate statement of goal? Should there be a learning outcome? What about quality of participation?		Is enrollment sufficient? Or, would completion or attendance be better?	These seem fine unless goal is modified to include a learning outcome	Indicators of success will depend on whether goal is modified
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Science Side

GOAL 5 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader participates in the CMSI Leadership Academy.	12 hours	Present sample lesson Participates in curriculum focused discussions Identify current research on best practices in science	Attendance verification Evaluation forms	Participation in CMSI Leadership Academy
PRAIRIE FEEDBACK	Or do they have to complete the academy? Again, are there any learning or new practice goals?				Development and delivery of feasible sample lesson could be an indicator if there is a new practice goal.
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Science Side

GOAL 6 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader supports/provides professional development during the 2008-2009 school year.	36 hours *K-5 51 hours *6-8 *Note: Hours vary depending upon grade level	Co plans and plans professional development sessions Co presents professional development sessions Observation of professional development sessions	Professional development planning matrix Self reflection form Professional development summary Evaluation forms	PDL successfully facilitates professional development sessions PDL participates in PD planning
PRAIRIE FEEDBACK	Is it enough to say the PDLs provide the PD, or does it have to meet certain standards?For instance, does it have to be “high quality” PD?				These above would be modified if a standard for the quality of the PD is added to the goal
REVISED TEXT					

Appendix B
Worksheets for Revising CMSI PDL “Blueprints” or Action Plans
CMSI Professional Development Leadership Plan – Science Side
GOAL 7 Worksheet

	Goal	Minimum Time Requirement	Sample Activities	Sources of Evidence	Indicators of Successful Accomplishment of Goal
ORIGINAL TEXT	Professional development leader understands adult learning.	6 hours	Leads grade level discussion around specific science lesson, student learning and teaching strategies Leads CMSI professional development session	Professional development summary Evaluation forms Self reflection form	Either an increase, or an adequate level of understanding of the ways adults learn
PRAIRIE FEEDBACK					
REVISED TEXT					

Appendix C – Evaluation Data Collection Protocols

PDL Program Stakeholder Interview Protocol Prepared by Prairie Group February 22, 2009

Part 1: Overview questions about the PDL program

Goals

- a) What are the broad or long-term goals of the PDL program?
 - How do these program goals relate to the aims of the CMSI?
 - How do they relate to the priorities of the District?
- b) What are the short-term goals that the PDL program has for this academic year?
- c) To what extent is the PDL program meeting its expected goals?
[prompt for in what ways, examples of how or how not]
- d) What factors support or constrain the PDL program's ability to achieve its goals?
[prompt for Office level; District level]

Program Roles

- a) What is the role of the PDLs? How do they fit into the structure of CMSI leadership?
- b) Has the PDL role changed since the program began? If so, in what ways, and for what purposes?
- c) What is the role of the PDL planners? How do they fit into the structure of CMSI leadership?
- d) Are there any other roles that are key to the PDL program?
[if they identify any, prompt for how those roles contribute to program's goals]

Standardization of the PDL program across Math and Science PDLs

- a) What is your view the goal of standardizing the PDL program across the math and science sides of OMS?
[prompts for pros, cons, feasible, etc.; prompt for standardization around specifics about the program: the PDL certification process; the PDL's role]
- b) (i) *[If the interviewee accepts or supports standardization]* What kinds of steps need to be taken to achieve this standardization?
(ii) *[If the interviewee disagrees with standardization]* How would you structure the program?
- c) Are there any ways in which you think that the math and Science sides should remain different? If so, why?

Part 2: Components of the PDL program

PDL Recruitment

- a) "What is the PDL recruitment process?"
[Prompt: How are new PDLs recruited into the program]
- b) What is your assessment of the current PDL recruitment process?
[prompts: What are the strengths of the current PDL recruitment process? What are the limitations?]

Appendix C – Evaluation Data Collection Protocols

- c) What supports are in place for effective PDL recruitment?
- d) What are the challenges to effective PDL recruitment?
- e) Are the processes for recruitment similar or distinct across Math and Science?
[Note that interviewee may not be able to speak about both sides]

Training and Support of PDLs

- a) What is the process by which prospective PDLs are trained to deliver PD?
[Prompts: what are the areas in which the training program is most effective? where could it be improved?]
- b) What supports do new PDLs receive as they move toward certification? What do you think about these supports?
[prompts around whether the supports are adequate, effective]
- c) How are PDLs supported once they've been certified? What do you think about these supports?
[Prompt around whether the supports are adequate, effective]
- d) What is your view of the ways math and science train and support their PDLs?
[If interviewee knows both sides, prompt around similarities and differences]

Monitoring and Assessing Quality of the PDL program

- a) In what ways is the PDL program being monitored internally? *[Prompt: what kinds of data are being collected, and by whom?]*
- b) Is the information that is gathered about the program being used to inform program practices?
[Prompt for examples: If so, How? If no, prompt for examples of how it could be used]
- c) What kinds of supports are there for doing regular program monitoring?
- d) What kinds of challenges are there for doing regular program monitoring?

Part 3: Sustainability

- a) What is key to the sustainability of the PDL program?
[Prompt: Are there particular contexts within OMS or CPS more broadly that create supports for or challenges to the sustainability of the PDL program?]
- b) What processes and supports are being used to facilitate the program's sustainability?
- c) Who participates in the program's sustainability? In what ways do they participate?
[follow-up if need clarity: what are the groups that have a role in the future of the program?]
- d) What are the challenges to the PDL program's sustainability?

Appendix C – Evaluation Data Collection Protocols
PRAIRIE Evaluation Team
CMSI PDL Focus Group Moderator’s Guide

1. INTRODUCTION

Introduction of Topic: *The purpose of this focus group is to discuss your experiences with and reflections about the PDL program. Specifically, we will spend the next hour talking about your role as a PDL, supports you’ve received, and the process of becoming a PDL.*

Ground Rules

- Candid and honest responses – want to hear from everyone.
- No right or wrong answers / no need for consensus – interact / talk with one another.
- Your contribution is anonymous. Your name will not be connected in any way to the opinions you express today.

[get signed consent forms from each participant before continuing]

Participant Introductions: First name and curriculum/grade level (or materials kit for science) they provide PD for

2. Discussion of the PDL recruitment and preparation (about 15 minutes)

First, let’s talk about how you became a PDL.

- Tell me about how you were recruited to become a PDL. What did that experience mean to you? What appealed to you about becoming a PDL? What did you think about the recruitment process?
- How did you become a PDL?
- Tell me about training you’ve received to be a PDL. [*Probe for ongoing PD*]
- What advice would you give a teacher who was considering becoming a PDL?

3. Discussion of the PDL role (about 15 minutes)

Now, let’s talk about your role as a PDL.

- Describe your role as a PDL. What does it mean to you to be a PDL?
- How well prepared do you feel you are to perform the functions of the PDL role? [*probe re: pedagogy (teaching adults), leadership, and curricular content; CMSI message*]
- Talk about what it means to you to be an experienced PDL. (*Prompt about what that role consists of, how it is different from being a new PDL, and how well they feel able to perform that role.*)

4. Discussion of PDL supports and resources (about 15 minutes)

Now, we are going to talk about supports that are available to PDLs, the effectiveness of those supports, and ideas you may have for improving them.

- Talk about the supports and resources that are available to you as a PDL. [*Probe re: (OMS, school-level, other supports)*]
- Which ones work best? In what ways?
- Which supports would you change? Describe those suggested changes.
- Are there any aspects of the PDL role that you feel could use additional support?

5. Other Thoughts (about 15 minutes)

Now, we are going to talk about some of the effects becoming a PDL has had on you professionally, your thoughts about the PDL program more generally, and ideas your may have for improving it.

- How becoming a PDL has affected you professionally. [*Probe re: (e.g., as a leader at school, career path/professional growth)*]
- What are some of the factors that might contribute to or limit your own development as a PDL?
- What are some of the factors that might influence the PDL program’s success?
- Do you have any other recommendations for improving the PDL program?

Closing

Appendix C – Evaluation Data Collection Protocols

PRAIRIE Evaluation Team

CMSI PDL Leadership Academy Observation/Debrief Template 2008-2009

PART 1 -- OBSERVATION

Evaluation project: CMSI PDL strand

Program/Activity: PDL Leadership Academy

Location of visit: Science PDL Academy, Chicago Aquarium

Date/time/duration of visit:

Observer recording notes:

Date notes written:

Individuals present:

Description of site:

List of materials collected:

Description of activities with time intervals:

(This section should include detailed description of interactions and dialogue during observation, with time indicated at key activity intervals (for instance, as move to next point on agenda). Keep in mind you are looking for details of professional learning in an Academy structure, a deepening of content and/or pedagogical knowledge, and experiences that promote leadership development.

Analytic themes:

(This section should include evidence about activities, interactions, comments and dialogue that will contribute to evaluating the program. The following prompts will help you relate your observations back program goals and evaluative questions.)

1. Academy functions as a learning environment for professional development leaders:

- New skills and concepts are effectively modeled
- Time is made for applying/using new skills and concepts during the Academy session
- Active participation occurs through questioning, discussion, writing
- Time is made for reflection on practice --alone and together; written and verbal
- Material is presented that has relevance to participants' actual work
- Participants are engaged as sources of knowledge and experience
- Participants communicate their understanding and engagement (to each other)
- Participants receive constructive feedback on their work

Appendix C – Evaluation Data Collection Protocols

2. Evidence of deepening of content and/or pedagogical knowledge related to the particular instructional curriculum:

- Participants engage with instructor(s) around aspects of CMSI instruction in mathematics and science
- Participants engage with instructor(s) in processes by which CMSI instruction in math/science can be promoted in Chicago Public Schools

3. Evidence of learning experiences that promote understanding of adult learning

- Instructor(s) engage with participants around concepts of adult learning
- Participants have hands-on experiences in the role of PDL, including the range of ways they can support CPS math/science teachers

4. Evidence of learning experiences that promote leadership development

- Participants reflect upon/reconsider their roles as professional development leaders, teacher leaders and/or classroom teachers
- Participants receive information and opportunities to plan, prepare, and facilitate OMS professional development sessions.
- Participants have opportunities to engage with other PDLs as professional colleagues (e.g. practice leading, giving and receiving critiques, pooling of knowledge and understanding).

5. Evidence of communication and sharing around the PDL program and PDL role

- Participants get (and demonstrate understanding of) specific information on the PDL program, including program activities, goals, and its relationship to the CMSI's goals or theory of action.
- Participants get (and demonstrate understanding of) specific information on how OMS views their role as professional development leaders (PDL) and/or the process of becoming a PDL.

Other analytic comments:

(i.e. additional thoughts in which you relate your observations to the immediate scope of the program objectives or evaluation questions)

Interpretive comments:

(i.e. additional thoughts in which you relate your observations to broader issues and contexts beyond the immediate scope of the program objectives)

Self-reflective observations:

(i.e. ways in which the event or activity observed affected you, how you responded to aspects of the activity that might influence your observations, etc.)

Follow-up needed:

(In this section identify any additional information that needs to be gathered, gaps filled, etc.)

**Appendix C – Evaluation Data Collection Protocols
PART 2 – DEBRIEF WITH INSTRUCTOR/FACILITATOR**

Program/Activity: PDL Leadership Academy

Location of debrief:

Date/time/duration of debrief:

Interviewer recording notes:

Date notes written:

Note to interviewer: This brief protocol is intended to be used with one or more facilitator/instructor, immediately after the observed Academy session is completed. The intention of this instrument is to collect data on the individual facilitator's perception of the PDL Academy as a learning environment that: *a) develops instructional competencies, b) deepens content knowledge, c) helps to build and refine leadership skills.* The interviewer should listen for examples of these 3 categories in the substance of these questions.

- 1) **How do you think the training went?**
- 2) **Did you accomplish what you planned?**
- 3) **Which activities worked well and why?**
- 4) **Which ones fell short? Why was that?**
- 5) **How do you think you balanced the time for active participation with time for reflection?**
- 6) **How did you accommodate multiple learning styles and your own knowledge of participants' backgrounds and skill levels?**
- 7) **Which aspects of the training seemed most specifically in sync with participants' own work? Which ones did you think came across as more generic or abstract? How come?**
- 8) **Which new skills and concepts did the participants seem to pick up on easily? Which ones did they seem to struggle with? Were there any that went over their heads? How so?**
- 9) **What were the signs or evidence that participants were understanding things deeper and more fully?**
- 10) **What did you learn about in the process of doing this facilitation? (e.g. the program, the participants, your colleagues, yourself, the art of facilitation)**

Appendix C – Evaluation Data Collection Protocols
CMSI PDL Program Evaluation – 2008-09
Professional Development Observation/Debrief Protocol
Prepared by the PRAIRIE Group

The following protocol consists of 3 parts: (1) observation of the PD workshop; (2) debrief with the PDLs; and (3) completion of analytic notes based on the observation and debrief.

Note that the broad purpose of the observation/debrief is to understand the relation between the qualities of the PD provided and the kinds of training and support the PDLs receive, and to examine how internal assessment processes contribute to PD delivery.

PART 1: Observation of Professional Development Workshop

(Observer should arrive at workshop early in order to take notes about the workshop site and PDLs' preparation process)

A: Background information:

PD area (math curriculum or science kit):

PD grade level:

PD session day observed:

Lesson or topic covered:

Date/time/location of observation:

B: Set-Up:

Description of site (in particular qualities that might affect the workshop experience for PDLs and teachers: size and condition of room, how furniture is arranged, teaching or other equipment and materials in the room, lighting, etc.)

Individuals present

PDLs (how many? Backgrounds? (teachers? Area coaches? CWSs?):

Participating teachers:

Others:

PD session agenda if available:

List of materials collected (or distributed to teachers if not collected); indicate if hard copies or available electronically:

C. Description of PD workshop with time intervals

In this section the observer should record detailed description of interactions and dialogue during observation. Below are guidelines for areas of dialogue and practice that the observer should pay particular attention to:

Time intervals: Indicate the time at key activity intervals -- for instance, as the PDL moves to the next part of the workshop, or to a new agenda item.

Interactions: Observations should focus on both PDLs and participants – pay attention to interactions between PDLs and participants, as well as interactions among PDLs (for instance as they discuss how to deliver the PD), and among participants (for instance as they work in groups, pose or respond to questions.)

Workshop components: Observational notes should include the following facets of the PD workshop:

1. How PDLs prepare for the workshop (e.g. distributing handouts, inventorying materials/kits, organization of workshop space);
2. How PDLs organize/structure and deliver the workshop;
3. Content and pedagogical knowledge PDLs present for the lesson or kit covered during the session;
4. Teachers' participation and engagement in the workshop, including reflection activities;
5. How PDLs wrap up the workshop, including engagement in self-reflection on the session.
6. Assessment/reflection activities between PDLs leading workshop and OMS facilitator and/or experienced PDLs.

Insert observational notes here:

Appendix C – Evaluation Data Collection Protocols
PART 2 – DEBRIEF WITH PDL

This brief protocol is intended to be used with a PDL immediately after they have led a Professional Development workshop, in order to learn about their perspective on the workshop they led.

Most likely you will debrief with the two co-presenters together. If so, be sure to ask them if and how you can contact them with follow-up questions. This will allow you access to them individually if necessary.

Program/Activity: PDL Professional Development Workshop

Location of debrief:

Date/time/duration of debrief:

Interviewer recording notes:

Date notes written:

Debrief questions:

A. *Today's workshop*

11) How do you think the PD workshop went? Did it meet your expectations? How so/why not?

12) How did you (and your co-facilitator) plan for today's PD workshop?

13) What were you hoping to accomplish with this workshop in terms of teachers' learning?

14) How well did the process of co-presenting go? What went well? Were there areas of challenge?

15) Based on how the workshop went, what would you do the same the next time? Are there things you would do differently the next time?

B. *PDL Supports*

1. In what ways has the training you have received from the PDL program (Academy and other supports) prepared you to facilitate/co-facilitate the workshop?

2. Are there additional supports you would like to receive to help you develop in this role?

C. *Reflection and Assessment*

1. Can you describe the process you use to reflect with your co-presenters on the workshop? Is it helpful to your development as a PDL? In what ways is it or isn't it?

2. Can you describe the process of reflecting with your supervisor? What areas do you review? Is it helpful to your development as a PDL? In what ways is it or isn't it?

PART 3 – COMPLETION OF ANALYTIC NOTES

Drawing on your observational notes and debriefs with PDLs, respond to the following analytic prompts related to key elements of the PD workshop. Be sure to give concrete examples from your data. Where observations and debrief comments are comparable or different, make a note of this.

1. PDLs' preparation for the workshop

- What kind of materials did the PDLs prepare in order to demonstrate activities and engage teachers in the activities?
- How did PDLs arrange/modify the workshop space in preparation for the workshop?
- Did PDLs confer prior to workshop as to how they will work collaboratively in the presentation? If so, what did they discuss?

Appendix C – Evaluation Data Collection Protocols

2. PDLs' structuring and delivery of the workshop

- Did the PDLs present the content of the workshop clearly to the teachers?
- What was the ratio of time spent with (a) direct instruction, (b) group work (c) individual work?
- In what ways did PDLs involve teachers in collaborative learning activities/situations?
- What opportunities did teachers have to practice applying new skills and concepts during the workshop?
- In what ways did PDLs engage teachers actively in the workshop through questioning, discussion, and/or writing?
- Did PDLs engage teachers as sources of knowledge and experience? Give examples.
- Did PDLs provide teachers with constructive feedback on their work? Did PDLs encourage teachers to provide constructive feedback to each other? Give examples.
- Did PDLs use ongoing assessment to modify the presentation based on the needs of the participants? If so, how?
- Did PDLs provide time for teachers to reflect on their practice? What was the nature of that reflection? (individual or in groups; written or verbal)

3. Presentation of content and/or pedagogical knowledge related to the particular instructional curriculum:

- Did PDLs present pedagogical and content issues examined through engaging teachers in inquiry, or through narration (direct instruction) or both?
- How did the PDLs model best practices associated with curricular program of the PD? For instance, did they organize the PD workshop around investigation and use of tools and manipulatives?
- Did PDLs engage participants in discussion of philosophy and structure of the instructional curriculum? If so, what was the quality/nature of that discussion? How engaged were teachers in the discussion? If misconceptions arose, how did PDLs address those?
- Did PDLs engage with teachers around challenges related to the specifics of CPS classrooms and schools? If so, who initiated those conversations? How did the conversation go?
- Did PDLs help teachers see the material presented as relevant to their actual work?
- Did the PDLs combine modeling how a lesson could be taught in the classroom with making the pedagogy apparent? (This is also described as stepping in and out of the teacher role.)

4. Teachers' engagement/participation in the workshop and reflection activities:

- Did PDL/teacher interaction reflect collaborative and respectful relationships?
- What was the nature and level of teachers' engagement/participation in the workshop?
- What was the nature of the teachers' engagement in reflection processes?

5. Wrap-up activities

- Did PDLs review the workshop's goals and content during wrap-up and solicit questions?
- Did PDLs provide teachers with the opportunity to complete a workshop evaluation?
- What kind of follow-up or ongoing engagement between teachers and PDLs (if any) did the PDLs suggest? What was the teachers' response?

Appendix C – Evaluation Data Collection Protocols
PRAIRIE Evaluation Team
CMSI PDL Focus Group Moderator's Guide -- 063009

Introduction of Topic: The purpose of this focus group is to discuss your experiences with and reflections about the PDL program. Specifically, we will spend the next hour talking about your role as a PDL, supports you've received, and the process of becoming a PDL.

Participant Introductions

First name and curriculum/grade level (or materials kit for science) they provide PD for

1. Discussion of the PDL recruitment and preparation (about 15 minutes)

First, let's talk about how you became a PDL.

- Tell me about how you were recruited to become a PDL. What did that experience mean to you? What appealed to you about becoming a PDL? What did you think about the recruitment process?
- How did you become a PDL?
- Tell me about training you've received to be a PDL. [*Probe for ongoing PD*]
- What advice would you give a teacher who was considering becoming a PDL?

2. Discussion of the PDL role (about 15 minutes)

Now, let's talk about your role as a PDL.

- Describe your role as a PDL. What does it mean to you to be a PDL?
- How well prepared do you feel you are to perform the functions of the PDL role? [*probe re: pedagogy (teaching adults), leadership, and curricular content; CMSI message*]
- Talk about what it means to you to be an experienced PDL. (*Prompt about what that role consists of, how it is different from being a new PDL, and how well they feel able to perform that role.*)

3. Discussion of PDL supports and resources (about 15 minutes)

Now, we are going to talk about supports that are available to PDLs, the effectiveness of those supports, and ideas you may have for improving them.

- Talk about the supports and resources that are available to you as a PDL. [*Probe re: (OMS, school-level, other supports)*]
- Which ones work best? In what ways?
- Which supports would you change? Describe those suggested changes.
- Are there any aspects of the PDL role that you feel could use additional support?

4. Other Thoughts (about 15 minutes)

Now, we are going to talk about some of the effects becoming a PDL has had on you professionally, your thoughts about the PDL program more generally, and ideas your may have for improving it.

- How becoming a PDL has affected you professionally. [*Probe re: (e.g., as a leader at school, career path/professional growth)*]
- What are some of the factors that might contribute to or limit your own development as a PDL?
- What are some of the factors that might influence the PDL program's success?
- Do you have any other recommendations for improving the PDL program?

Closing