Running Head: Understanding State-Level Program Impact

Understanding State-Level Program Impact: Leveraging State Policies and Resources for Effective Implementation, Creating Profiles of Local Grantees and Measuring Local Implementation

Assessing Fidelity & Improving Understanding in an Illinois Mathematics & Science Program

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Abstract

Fidelity is the extent to which the intervention, as realized, is "faithful" to the pre-stated model. Measuring implementation fidelity provides data for understanding the overall impact of the program at the teacher level, site level, and state level. This paper describes the tools used to measure implementation as well as lessons learned locally, across sites, and at the state level.

Theoretical Framework

Ensuring a cohesive plan for collecting, analyzing and using data for implementation is the foundation for a effective program. Fidelity is the extent to which the intervention, as realized, is "faithful" to the pre-stated model (Cordray, 2007). Articulating meaningful classroom implementation goals involves a process of considering the theories, practices, and systems influencing long-term outcomes (Borko, 2004; Chatterji, 2004).

Implementation fidelity incorporates many components. First, adherence addresses whether program components are delivered as prescribed. Exposure levels to the program content, the quality of the delivery in terms of the theory-based ideal for processes and content, the participants' responsiveness, and unique features of the program that make it distinguishable from other programs also must be considered (Dane & Schneider, 1998; Carroll et al, 2007).

Logic Models are core to the graphical depictions of program goals to align program resources and activities with outcomes and are the beginning point for implementation fidelity. Logic models vary in detail and usefulness for articulating causal relationships essential to monitoring implementation (Clark & Anderson, 2004). Theory of change, systems thinking, and strategy maps are among the

frameworks and tools for articulating these relationships more effectively (Anderson, 2004; Richard, 2009; Williams, 2002; Williams, 2009).

The goal in a theory of change (TOC) framework is to demonstrate how the evaluated intervention is one of the causes of change. It is a systematic investigation of explanations for the observed impacts, making the elimination of implementation failure as an explanation for lack of results a key step (Anderson, 2004). The essential components include an outcomes framework that outlines the set of necessary and sufficient preconditions for long-term outcomes, articulated assumptions explaining the connection between the outcomes in the change pathway, and a set of indicators that reflects the change that must occur in a specified time period for specific populations (Clark & Anderson, 2004).

Evaluators have considered how systems thinking can inform the effective measurement of implementation fidelity (Richard, 2009; Williams, 2009; Williams, 2002). At the core of systems theory is the notion of complex, dynamic, reciprocal, causal relationships between systems. Analyses focus on modeling and predicting the inter-relationships to understand the program (Williams, 2009). Different Systems Models focus on different aspects of the inter-relationships, perspectives, and boundaries. Systems Thinking puts evaluation at the center in an explicit way (Richard, 2009).

Implementation fidelity is a pivotal part of understanding the impact of the large scale initiatives. Evaluation of adherence of program delivery means assessing the degree to which the "implementation process is an effective realization of the intervention as planned by its designers" (Carroll et al, 2007). Logic models, theories of change, and systems thinking can work together in the development of comprehensive frameworks for addressing implementation fidelity.

This paper discusses the effective evaluation of implementation at three levels of a state Mathematics and Science Partnership program. The issues are addressed from the perspective of the state evaluation framework, the site evaluators who develop detailed profiles across local grants, as well as the experiences at the local grant level from the evaluator of one funded project.

IMSP Background

The Illinois Mathematics and Science Partnership (IMSP) program represents an important response to a very critical need in students' mathematics and science achievement. The IMSP program is designed to improve the performance of students in the areas of mathematics and science by encouraging states, IHEs, LEAs, and elementary and secondary schools to participate in programs that improve and upgrade the status and stature of mathematics and science teaching, focus on the education of mathematics and science teachers as a career-long process; bring mathematics and science teachers together with STEM professionals, and develop more rigorous mathematics and science curricula aligned with state and local standards.

The IMSP program was initiated by the Illinois State Board of Education (ISBE) as a response to achievement needs for Illinois students in mathematics and science as well as to increase the percentage of high school math and science teachers certified in their field

Addressing the Need

Model 1:

The ISBE has developed two MSP programs to address the need for improved mathematics and science instruction in Illinois. The first model currently funded in the IMSP program centers around Master's Degree programs that represent partnerships across colleges of Arts and Science and Education with school districts to provide degree programs uniquely tailored to the needs of the IMSP.

Model 2:

In 2008-2009 and 2009-2010, the ISBE funded a second model, the Workshop Institute MSP programs (WIP-1, WIP-2). This model focused on two week intensive training sessions complemented by shorter training and mentoring sessions throughout the year. The first round of intensive training was conducted in June 2009.

Methodology for the State Evaluation

Participants

Initially, the Master's Degree MSP model was represented by twenty-four separate partnerships across ten universities throughout the state. The first phase of development for this model was completed in 2008-2009, a planning phase for finalizing the Master's programs and recruiting teachers to participate.

In 2009-2010, grants moved into the implementation phase of the program with teachers beginning coursework in the fall 2008 or winter 2009. Of the original cohort of grants, sixteen grants across eight universities began the implementation phase of their projects. Four grants across four universities extended their planning to delay implementation until 2009-2010. Four grants were discontinued and did not complete the process to continue into the implementation phase.

The IMSP higher education partners include the Illinois Institute of Technology (IIT), Illinois State University (ISU), Northern Illinois University (NIU), Southern Illinois University – Carbondale (SIU-C), Southern Illinois University – Edwardsville (SIU-E), University of Illinois Urbana Champaign (UIUC), Loyola University (LU), Aurora University (AU), Bradley University (BU), and DePaul University (DU). See Table 1 for breakdown of institutions and content.

Table 1. IMSP Funded Grants – Master's Degree Programs

	Institution										
Content Focus	IIT	ISU	NIU	SIU-C	SIU-E	UIUC	LU	AU	BU	DU	Total
Life Sciences			1**					1			2
Chemistry		1					1*				2
Earth/Space Science								1			1
Elementary		1*		1*		1		1	1		5
Environmental Science									1**		1
IT/Pre-engineering		1	1								2
Physics	1										1
Secondary Mathematics		1	1		1**		1	1		1**	6
Total	1	4	3	1	1	1	2	4	2	1	20

^{*}Implementation delayed until January 2009

Table 2. IMSP Funded Grants – Workshop-Institute Program 1

	Institution									
Content Focus	AU	UIUC	ISU	Lee- Ogle ROE	Monroe- Randolph ROE	Rock Island ROE	St. Clair ROE	Total		
Nanotechnology		1						1		
Physics	1							1		
Middle School						1		1		
Mathematics & Science										
Secondary Science			1		1			2		
Secondary Mathematics	1		1	1				3		
Secondary Mathematics & Science							1	1		
Total	2	1	2	1	1	1	1	9		

Table 3. IMSP Funded Grants - Workshop Institute Program 2

Table of littor Tallaca Grants	Workshop institute i rogium 2								
	Institution								
Content Focus	AU	BHS ROE 28	ISU	Monroe- Randolph ROE	Lee-Ogle ROE	St. Clair ROE	NIU	Rock Island ROE	Total
Elementary	1								1
Middle School Mathematics				1					1
Secondary Mathematics & Science		1			1				2
Science			1					1	2
STEM			1			1	1		3
Total	1	1	2	1	1	1	1	1	

^{**}Implementation delayed until 2009-2010

Core program components

Each of the programs in both models has the following core elements:

Content-focused professional development. The Master's Program model is focused around new or revised graduate level program granting Master's degree for participants. The Workshop-Institute Program model incorporate intensive content-focused training with mentoring.

Partnerships between STEM organization or business, government agencies, universities, and local school districts and school service agencies. All grants in both models have formed important partnerships to execute the grant activities. For the Master's Program model, all grants incorporate collaboration across colleges within their universities. In both the Master's Program and Workshop Institute Program, grants have developed or used existing partnerships with industry, government, education service agencies, or school partners as part of the IMSP. The nature of the partners and their relationships varies across grants.

Overview of Meta-Analytic Model for Evaluating IMSP Outcomes

The Illinois cross-site evaluation framework uses local evaluation results in a systematic way as an indicator of the effectiveness of the IMSP project overall. Meta-analysis methodology is used to provide estimates of the impact across the range of mathematics, science, and STEM partnership initiatives funded by the IMSP program.

For the second year of implementation, meta-analyses were applied to model the scale of change in teachers' and students' content knowledge. In addition to meta-analyses, results from qualitative analyses of interviews and artifacts were triangulated with quantitative survey results to provide a more complete picture of Illinois' progress toward its MSP goals.

Overview of Illinois State-Level MSP Evaluation Data Sources

IMSP outcomes evolved from the CCSSO matrix of professional development outcomes (CCSSO, 2007). There are five categories of outcomes for which local grants submit data to the state each year:

- 1. Quality of PD Activities
- 2. Change in teacher content knowledge
- 3. Change in instructional practice (including strategies, resources, and content knowledge)
- 4. Change in student achievement
- 5. Quality of Partnerships

State Data Templates – local grants submit aggregated data for the state evaluation for outcomes 1-4. Participant Surveys – Partners and teacher participants are surveyed each year by the state evaluation team. The survey was adapted from the Annual Satisfaction Survey for Community Coalitions (Wolff, 2003) covers their perceptions of the effectiveness of the local MSP vision, leadership, communication, technical assistance, progress and outcomes, and sustainability. The survey focuses largely on state outcome 5 as well as providing evidence for outcomes 1, 2, 3, and 5. In addition to site visits, IMSP grantees submitted lists of teacher, school, industry, and higher education partners to complete satisfaction surveys (see Appendix A). Analyses after the survey administration indicated the internal consistency for each survey type (higher education, industry, school, and teacher) was strong with αIHE= .972 (n=109), α Industry= .931 (n=45), α School= .971 (n=50), and α Teacher= .971 (n=479). In order to compensate for attrition in responses due to the "not applicable" response choice which causes the

listwise deletion of cases in analyses and an inflated Cronbach's alpha, these responses were replaced with the appropriate subscale mean for each survey.

Site Visit Interviews & Protocols – Interview protocols conducted by the state site evaluation team are available in Appendix B. The protocol addresses all of the outcome categories 1-5.

State Level Requirements

Implementation fidelity is built into the state level evaluation framework. The state requirements rely on the local evaluation models using a variety of data sources to establish the levels of implementation of grant goals in participating teachers' classrooms. Although there are broad commonalities across grants, the unique scope and sequence of the content, strategies, resources, and technologies across programs precludes the use of a single implementation measure for everyone. In addition to the differences in goals and design, differences in local school settings require flexibility at the local grant level for measuring implementation. Contextual variables related to the participants (administrators, teachers, and students), competing reforms in the participating schools, and unique partnerships with STEM industry professionals need to be considered when determining how to measure local implementation.

Common Implementation Areas

Regardless of local needs, all grantees measure the following common implementation elements:

- Integration of content expertise from program activities
- Integration of curriculum resources
- Integration of instructional strategies and classroom activities

Integration of STEM technologies

These four areas are the focus of the state-level implementation evaluation requirements.

Each local grant measures the levels at which participants are implementing expected grant activities using a variety of data sources (e.g., surveys, logs, interview and/or focus groups, classroom observation, and extant data). Examples of each of these methods for assessing implementation include:

- 1) Surveys like the Survey of Enacted Curriculum which gives a broad view of implementation and the use of a wide variety of strategies. However, this survey will not provide information about specific new lessons, tools, strategies, or resources that teachers are implementing in their classrooms.
- 2) Logs teachers can complete instructional logs tailored to the exact implementation requirements of each grant during the period of implementation specified by the grantee
- 3) Extant data –grantees can collect and analyze lesson plans, teacher reflection journals, and artifacts from action research projects to examine implementation.
- 4) Observation several observation protocols are available to provide a framework for observation. Some resources have been used extensively in IMSP grants. There are other protocols available that are more generic or specialized that could complement the data collection (e.g., protocols specific to technology or inquiry). Grantees select an observation protocol that aligns with their specific program goals.
- 5) Interviews/Focus Groups grantees may employ interviews or focus groups to supplement their understanding of teachers' implementation or barriers to implementation.

At the site level, site evaluators summarized interview field notes and project artifacts in Program Profiles for each IMSP grant (see IMSP Profiles Supplemental Report). Principal Investigators for each grant reviewed the profiles and submitted clarifications and comments through an online member check survey (see Appendix C). Analyses of the partnerships focused on Partnership Composition, Organizational Structure, Action Plan and Operational Guidelines, Qualities of the Partnering Relationship, and Evaluation Implementation. Grant profiles and narrative survey responses are coded using QSR N6 software. Statistical analyses are conducted using SPSS 18.

Results for IMSP Implementation Fidelity Process

Example of Local Articulation

Measuring Implementation & Building Adherence: Assessing Fidelity & Improving Understanding in an Illinois Mathematics & Science Program

At the local level, implementation fidelity must be measured comprehensively to align with project objectives and provide a foundation for measuring progress. There are many data collection considerations for monitoring and assessing fidelity. The evaluator must identify measures for necessary preconditions and align all measures with current evaluation data sources for efficiency and to eliminate overlap. Finally, mixed methods using multiple data sources are needed to triangulate evidence of implementation.

For purposes of this paper, consider the implementation issues that revolve around classroom implementation of the initiative as teachers work to apply the strategies and knowledge gained in the course of their professional development. Program designers go to great lengths to develop course work and activities that will align with the goals of the project and advance teachers' knowledge and skills. As a result of course work in a project the likes of this, there are multiple data sources that we can use to

demonstrate that teachers' knowledge of science has increased. In addition to other potential choices, these included course activities and grades, as well as pre- and post-testing of teachers' knowledge using a standardized measure, in this case the Misconception-Oriented Standardized Assessment Resource for Teachers (MOSART). The former has the potential for instructor bias and the latter demonstrated some validity issues that may influence its measurement integrity (Salzman & Gardner, 2009). So often in these types of activities, too, program evaluations focus on change in knowledge as the deepest level at which they measure (Guskey, 2001). And while change in knowledge is necessary to influence both changes in teacher classroom practice and student outcomes, measuring how the initiative is implemented in the classroom is essential in order to make causal inferences of the professional development activities leading to improvements in student learning.

The Personnel Involvement Model: A Framework

The MSP grant for George Williams College of Aurora University is centered around the Personnel Involvement Model (Newman & Deitchman, 1983). The personnel involvement model is one approach that has been alternately titled as Client-Centered (Stufflebeam, 2001), Stakeholder-Based (Caracelli, 2000), or Responsive (Stake, 1983). Stufflebeam analyzed twenty-two different approaches to evaluation and deemed the Client-Centered approach as one of the strongest "when compared with professional standards for program evaluations" (p. 89).

The personnel involvement model embodies a four-step process that requires engagement with key personnel at all stages (see Table 4). Initially, evaluators request a representative group of key stakeholders to engage in a focus group to identify important issues from a variety of perspectives through a recursive dialogue. This dialogue involves a cyclical member-checking process that clarifies the objectives and informs the development and validity of the observation instrument.

Table 4. Components of the Personnel Involvement Model

- Identify a Sample of Key Stakeholders
- 2. Collaboratively Develop/Choose the Evaluation Criteria/Instrument
- Member Check for Validity of Criteria/Instrument 3.
- 4. Collaboratively Analyze/Interpret Data

The personnel involvement model focuses on increasing involvement by key personnel in order to decrease resistance and suspicion and increase the probability of the information being used for program improvement.

Conversations on Implementation Fidelity: The Back Story

The principal investigator, his leadership team with representatives from the districts and the College, and the evaluator met on several occasions and had ongoing conversations in person, via email, and phone. The challenge was to determine which of the multitude of knowledge variables, teaching behaviors, and skills that could be measured would be used in the project to estimate the fidelity of participants to the intentions of the designers. As in any sound evaluation, the first choice was to use instruments that had already been developed and had estimates of validity and reliability established within other similar projects.

Content Implementation and MOSART

Based on suggestions at early meetings of the IMSP grantees, the Misconception-Oriented Standardized Assessment Resource for Teachers (MOSART) in Earth Science and Astronomy/Space Science were chosen to measure changes in teacher knowledge. Item-analyses for the project indicated acceptable levels of reliability (alpha=.701) although some evidence raised questions about the testworthiness of some of the items (Salzman & Gardner, 2009).

Classroom Implementation and The Framework for Teaching

The PI and his higher education team in consultation with the evaluator and other MSP programs in the state considered a number of different classroom observation instruments. Several protocols were considered, including some more generic in nature, like the Reformed Teacher Observation Protocol (RTOP) (Sawada et al., 2002) and others specific to other science projects, like the SEPA Classroom Observation Protocol and the Inquiry Science Observation Guide (Taum & Brandon, 2005). Charlotte Danielson's (1996) Framework for Teaching was also considered. The instrument divides teaching into four domains (Planning and Preparation, The Classroom Environment, Instruction, and Professional Practice) and further identifies and describes specific components of each domain, as well as qualitatively describing different levels of performance within those components. The Framework has a strong research background and has been promoted with extensive training protocols. The evaluator trained and worked with the instrument with numerous districts in Ohio as they revamped their teacher evaluation systems to a performance assessment framework.

After analyzing all of the protocols for their alignment to the project goals as well as their appropriateness in relation to the population of teachers in the project, the evaluator recommended the Framework for Teaching for several reasons. First, none of the other instruments contained rubrics that helped to differentiate levels of performance in qualitative ways. Each of them had some very detailed behaviors but no anchor performances that could minimize observer bias. Second, both of the districts were small and had few of the teachers in the cohort teaching science exclusively or as a major portion of their responsibilities. The use, therefore of a more generic protocol that could be used in any content area would allow the PI and his team to observe the application of teaching strategies that instructors may have adapted or modified from their science applications. Third, the rubrics provide sufficient

description of the different components of instruction and planning that it could also be used as a selfassessment tool as teachers reflect on their own practices in relation to what they have been learning.

The protocol incorporated training for observers, including facilitated conversations of how teaching episodes aligned with the levels of a rubric that was used as a self-reflection tool that allowed participants to better understand implementation of the specific strategies in classrooms. Only a portion of the components were used to better target observations and hone in on the most important aspects of professional development that are aligned with objectives and likely to present themselves in the classroom (see

Table 5 for selected components that were observed).

Table 5. Selected Components for Classroom Observation from The Framework for Teaching (Danielson, 1996) for George Williams College at Aurora University's IMSP Project

Domain	Component	Description
I – Planning and Preparation	a	Demonstrating Knowledge of Content and Pedagogy
I – Planning and Preparation	b	Demonstrating Knowledge of Students
I – Planning and Preparation	е	Designing Coherent Instruction
II – The Classroom Environment	b	Establishing a Culture for Learning
III – Instruction	a	Communicating with Students
III – Instruction	b	Using Questioning and Discussion Techniques

Domain	Component	Description
III – Instruction	С	Engaging Students in Learning
III – Instruction	d	Using Assessment in Instruction
III – Instruction	a	Demonstrating Flexibility and Responsiveness

Measuring Implementation: The Rubber Meets the Road

For the Implementation goal, we based success rates on several measures. First, as a group, participants made statistically significant increases in the perceptions of their science content knowledge (see Table 6 below). While this is self-reported data and must be viewed with all the appropriate caveats, it allowed the program team to infer that teachers perceived themselves to be more knowledgeable in their content knowledge and, by extension, more able to bring that to bear in a classroom setting. As part of our change theory, teachers must first have sufficient knowledge to be able to implement content-rich science lessons and activities. And even though the knowledge of inquiry based teaching methods growth did not reach statistically significant differences, the improvement documented does indicate that teachers are more confident in their knowledge of inquiry methods, also a goal of the designers.

Table 6. Change in Teacher Perceptions of Knowledge of Science Content and Inquiry Methods as Measured by **Mean Scores and Standard Deviations**

		2008		2010		
Element	N	Mean	SD	N	Mean	SD
Science Knowledge	22	5.80	1.86	25	6.92*	1.66
Inquiry Knowledge	22	6.14	2.32	25	7.12	1.92

Note: * indicates that the results were significant at the .05 level

Classroom implementation was based on several measures, too, including independent observations, teachers' journaling logs, and teachers' action research projects. Most prominent was the outside observations. As stated before, in the modified form of the Framework for Teaching, observations were made on a limited number of categories (see

Table 5). The observations were done by the faculty at GWC responsible for some of the preparation in the program. Scores of 3 and above were considered to be proficient and demonstrated that teachers showed evidence in classroom observations of appropriate instructional practices. As one can see from Figure 1, there was little change from the initial to the second observation on those teachers for whom we had two observations. It should also be clear that in most components, the majority of teachers were seen as proficient in their craft during the observations.

In a perfect evaluation world, there would have been baseline data on classroom practices prior to the program's beginning or at least early in the professional development sequence. While lack of baseline data does not allow us to show teacher change as a function of the professional development, the data reported above do allow us to show that eight of the nine teachers for whom we have two data points demonstrate proficiency in their professional practices on those components being measured.

The action research projects were in process and not used at this stage of the evaluation but will be a factor in the final report. However, the journals were illustrative of the personal impacts that teachers felt were functions of the professional development provided within the project.

Teacher Proficiency - Classroom Observation 1 & 2 100.00 90.00 80.00 70.00 % of Observations Teacher N=9 60.00 50.00 40.00 30.00 20.00 10.00 0.00 Establishing a Communicatin Demonstrating Demonstrating Designing Using Engaging Using Demonstrating Knowledge of Knowledge of Coherent Culture for g with Students Questioning Students in Flexibility and Assessment in Content and Students Instruction Learning and Discussion Learning Instruction Responsiveness Pedagogy Techniques Observation 1 77.78 77.78 77.78 77.78 77.78 77.78 77.78 77.78 Observation 2 88.89 88.89 88.89 88.89 87.50 88.89 88.89 87.50 100.00

Figure 1. Data from Observations of Teacher Performance in 2009-10 School Year

Note: Performances ranged from 1=Unsatisfactory, 2=Basic, 3=Proficient, and 4=Distinguished in each of the elements

Themes at the Site Level

Understanding the Forest by Examining the Trees: Creating Profiles of Local Grantees to Develop Themes in Implementation of a State MSP Program

The IMSP program evaluation employs a comprehensive site visit protocol to collect data about the degree to which program components are delivered as prescribed, exposure, or the amount of program content received by participants, and the quality of program delivery in terms of the theoretical base of processes and content, participants' responsiveness, and unique features of the program that distinguish it from other programs. Based on the data collected in the visits, the team creates profiles of the local grants and describes themes across grants to contribute to understanding the implementation of the program across the state.

Site Visit Tools

The site visit tools include the site visit protocol and an analysis of artifacts that programs submit to support interview data (see Appendix B). Sites also submit for review IMSP membership list, IMSP/IHE organizational charts, logic/change models, evaluation frameworks, evaluation data analysis plans, formal agreements or contracts in addition to the grant agreement, meeting agendas, meeting minutes, budget summary/narratives, newsletters, websites, and other forms or policy statements. Site evaluators analyze the data in formal profile reports that are reviewed by the local grantee (see Appendix C). In addition, the site evaluator analyses and interview evidence are incorporated into the state level reports to triangulate with survey and achievement data.

The Site Visit Protocol for the first two years of data collection asked questions about the partnership composition, organizational structure of the partnership, the action plan and operational guidelines, and the quality of the partnership. Partnership Composition is considered in terms of the degree to which IMSP staffing, collaboration between colleges, as well as the context for implementing the MSP shows effective coordination for achieving outcomes. Organizational Structure indicates the extent to which governance and decision-making bodies of the MSP were stable and effective. Action Plan & Operational Guidelines describe the nature of the program elements and the extent to which formal or informal agreements define, establish and support effective collaboration. Partnership Quality is represented as the degree that the IMSP partnership meets mutual needs. The level of trust, respect, and mutual accountability between partners, shared leadership between partners and sufficient resources to accomplish goals are also elements of partnership quality. In the second year, **Performance and Outcomes** elements were added to the protocol to assess the participants' perspectives on the IMSP performance in terms of grant outcomes and capacity building for the partners. Sustainability profiles indicate the degree to which the grant partners have benefitted from the grant and their perceptions of the institutionalization and sustainability of the core grant elements. And finally, a profile of the Local Evaluation Implementation is provided based on interviews of site partners to describe the resources, methodology and lessons learned in the implementation of the evaluation framework. The interview data is triangulated with summaries of the support of state level surveys and completion of the state and federal data reporting requirements.

Based on the interview data, artifacts, and data provided to the state, site evaluators characterize the progress that each site is making in each of the partnership areas along a four-level heuristic:

- Beginning stages are represented by articulated plans but no actions. The element is "on the radar" but there is no substantive progress toward effective implementation. The quality of the plans is inconsistent. Outcomes are not possible because no plans have been put into action. Plans may not provide adequate foundation for full implementation.
- Emerging stages are represented by clear and articulated plans with some initial actions setting the stage for implementation, but not enough substantive activity to establish implementation. The quality of the articulated plan may be very strong or may have some apparent weaknesses amidst

- other strengths. Outcomes are not imminent or predictable because high quality implementation has not reached a minimum threshold.
- **Developing stages** show clear, strong implementation is in place, although corrections for barriers, changes to plans, or consistency/satisfaction across stakeholders might be mixed. Positive outcomes are evident but all goals are not fully realized or not on track.
- Transformative stages show such a clear, strong enacted plan. It can be considered a model for others to use. Positive outcomes associated with the partnership seem inevitable or highly predictable.

Summary of Key Results

In the 2009-2010 school year, an overview of the qualities of the partnerships indicated action plans and local evaluation implementation are the areas with grants showing less progress. The partnership composition and quality of the partnership in terms of trust and mutual needs showed the strongest progress across grants (see Error! Reference source not found.).

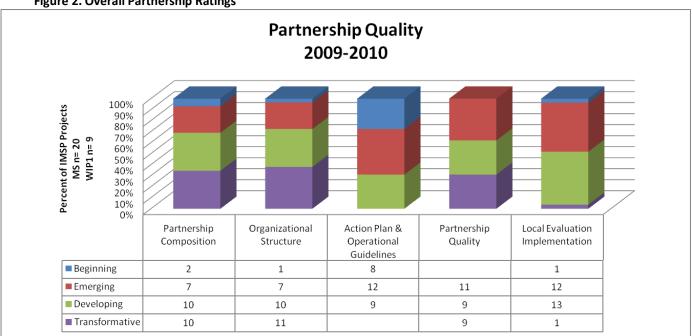


Figure 2. Overall Partnership Ratings

Issues of Implementation Fidelity

Data collected have shown that the local education agency environment can affect implementation considerably, especially when the partnership with the school partners is still emerging.

"PI: Huge changes in leadership and restructuring and everything. We lost a large chunk of principals and other leaders are being let go. A new superintendent is starting in July of this year. "

"LEA Partner stated, "Well since the program was developed we've had a lot of turn-over, even at the superintendent level, so I think that there's just not, you know, we meet each year, kind of updating about math-science partnerships, just so that I'm trying to keep people informed, whoever the new people are in positions. But I don't think it's a real priority."

"co-PI stated, "As far as teacher participants in the districts, 10/24 teachers got pink slips at the end of the 2009-2010 school year. Several have been hired back, some are still not sure. A number of teachers have changed schools and the subjects that they are teaching."

The level of involvement of school administrators (e.g., superintendent, principal) varies from program to program with some highly involved, while others are disengaged and allow the teachers to take full responsibility. Some programs have invested considerable resources into building more collaborative models. These programs tend to report fewer problems across the program in terms of implementation.

LEA Administrator stated, "I think from my experiences of what sets this partnership apart is the way that it is set up in a sense that I've seen many partnerships where there are people at the giving end and receiving end. Genuinely mutual to a partnership and that philosophy is on the way we set the agendas. It is not one person's agenda, it is the group's agenda and everyone is willing to set that. And once you have that centralized concept that everyone agrees on then there is no contention. There is no pulling or pushing. The agenda is set to fulfill everyone's needs in a serious manner and that sets up a whole beneficial process."

Co-PI: "And there is like now a new person in place, to provide the data for ISAT for the schools. For the students in the schools. And definitely this position for the new person is not tied down for the project, but there is a position in the district for somebody who would do that. This would continue on."

PI stated, "We have an advisory board in technology of education. And we meet annually. One of the items that we have met annually about is the STEM program. So in essence, yes, we have an advisory board, but it is more geared toward our program. If there is such a thing as an advisory board, it would be the teachers. They let me know what works, what doesn't work, what direction they want to take. Really I rely a lot on their needs."

"We have long-standing relationships, a long history with [the district]. We have worked together on other projects and the school district does a lot with our math department. We have had two previous NSF grants in partnership with [the district]. There is a good relationship among the leaders. The district contact for this MSP was a teacher in one of the NSF projects and she got her PhD here and then went back to the district. She is National Board Certified and has been a piece of stability in the chaos of the district."

PI said, "The capacity gains that we've had are because of the [School District] Math and Science Coordinator. She is the link between our approach and the entire district. What she is learning and doing from us, she is doing with all other math teachers who are not part of the MSP. We've built her capacity. She's built others' capacity. She was good for the district and her continuity is good."

Alternatively, both grant models (Graduate and WIP) have some grantees with partnership models that function with relatively lower levels of involvement by the school partners. The ability of the grant to implement and respond to barriers can be affected by these lower levels of collaboration.

Evaluator stated: "The one thing we would have like to have seen is the sharing of the raw ISAT data and let us call out what we needed, but they were unwilling to do that. They were also unwilling to do that for [university name], so I think that is district policy. That is it, it is district policy and we will share with you what you need. Elizabeth had said to us, that other districts were just giving the raw ISAT data and saying take what you need and burn the rest. You know what I mean, it is an electronic file as opposed to paper. Look only at what you need, but they wanted to excise out the part of the data file that were part of this project and nothing else. That is what took so much time and they did the same for XXU. It wasn't an XXU or XXU2 thing; it was this is our policy on how we distribute data. And that's fine, we have no problem with that, other than the fact that it took so long to get the clean data from them.

"Yeah, I think that the leadership that (PI Name) has provided and the fact that we have all been committed to being here month after month after month. That in itself builds trust, because people are committed to the project and have been from day one" School Administrator.

The PI said that teachers come from all over the state, not just one district, and the project has not worked with any specific districts about the conditions and resources needed to support and sustain the program or teacher instructional practices.

Those partnerships with high levels of collaboration with the school administrators recognize the benefits this relationship provides and are proud of the investment they have made to building and sustaining it.

Implications at the state level

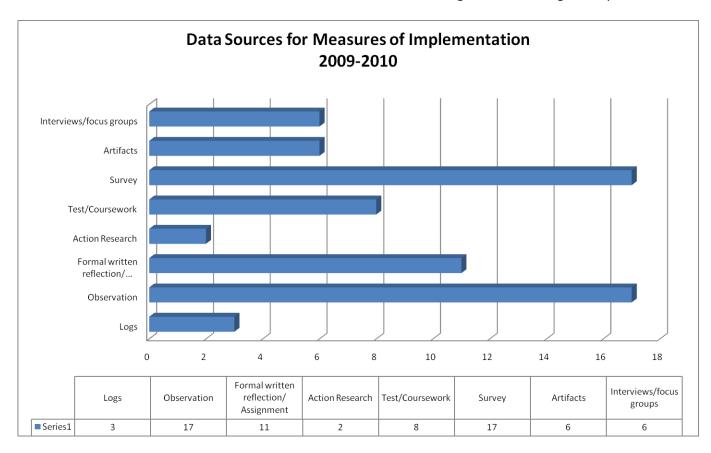
Understanding State-Level Program Impact: Leveraging State Policies and Resources for Effective Implementation

At the state program level, measuring implementation fidelity provides data for understanding the overall impact of the program as well as developing a framework for planning the policies and resources that are needed to sustain and scale up the initiative. Measuring implementation fidelity at the state level requires sensitivity to local evaluations as well as attention to the core elements of adherence to the broad guidelines of the state program. The IMSP Implementation Evaluation framework balances the needs of the state with the local program implementation needs. Multiple data sources at both the local project level as well as the state level provide rich sources for understanding the influence of adherence to implementation on synthesized outcomes.

Data collected and reported at the local and site levels are used at the state level for a variety of purposes. Data collected from local grants are triangulated with data from the site profiles as well as data from state level participant surveys that are completed by partners from higher education, industry, and school agencies as well as teacher participants.

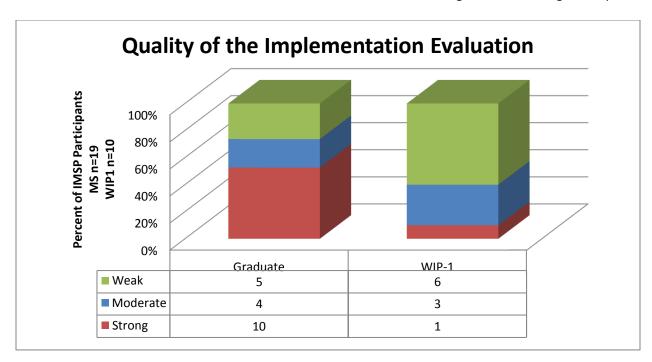
Compliance Monitoring

Data collected serve the most basic state function of assuring that local grants are implementing the grant as proposed and intended by the state. Each data source provides another source of evidence of the degree to which the principal investigator is effective in managing the grant funds.



Technical Assistance

Data also provide a needs assessment for the state evaluation team. Based on the data collected (and not collected), the evaluation team can work with state agency to formatively assess the effectiveness of the state level evaluation framework. Technical assistance webinars and workshops can then be planned and deployed to meet the needs of the local grants. In 2009-2010, a series of sessions on implementation fidelity were conducted in response to the data collection issues from 2008-2009.



Informing State Policy

Most importantly, conclusions from a multi-layered state evaluation model provide evidence for the state agency to weigh in developing and modifying state policies related to the execution of the Illinois Mathematics and Science Partnership program. These data impact the award process by through decisions to modify RFP language to clarify evaluation requirements and best practices and RFP processes to improve the acceptance of high quality proposals. The data are also used to inform the IMSP initiative itself as the state agency considers the effectiveness of the different models for achieving state level goals. The data are one part of the conversation at the state level to define the core components of the state program.

Discussion

What are the lessons learned at the local level?

On the local level, there are always several implementation fidelity issues to address. First is to engage in conversations with the PI and leadership team members to clearly specify goals, including the more explicit operationalizing of project goals, while identifying instruments and/or processes that can capture the data necessary to document the meeting of these goals. It is incumbent on the evaluator to

identify multiple instruments and be able to critically analyze these tools in relation to the goals of the initiative and make recommendations as requested. This type of approach is promotes collaboration between the evaluator and leadership teams.

Once the goals and tools have been determined, the other major issue rests in measuring fidelity itself. Certainly the use of multiple measures is important here. When evaluators and leadership team members find evidence that implementation of the initiative is in accordance with the project goals, it supports the effectiveness of the design of the program. When implementation fidelity is low, there are two likely culprits: issues of implementation or internal validity of the evaluation framework. In the case of the former, the data are accurate and the data provide formative information to revise program activities to increase implementation fidelity. In the case of the latter, improving the framework to better define and measure implementation is important. Threats to the quality of the confounding data underscore the importance of having multiple measures.

In terms of the science, it is important to have the right tools and training to improve the reliability and validity of the evaluation data. The conversations that take place in the analyses of data, however, are where the power of the evaluation process meets the needs and goals of the program designers. Ultimately, even attempting to measure fidelity is likely to increase the more robust enacting of the initiative in its ideal form as all participants become more aware of the intent of the project and the expectations of their participation.

What are the lessons learned at the site level?

There are several strong indicators across the programs that illustrate the value of on-site visits and the use of a protocol to complement self-reported data. First, in meetings where multiple partners have participated, stakeholders at all levels are available to offer responses based on their unique perspectives. Additionally, as participants answer questions, others in the group build on their responses or reflect on the answers. In several partnerships, the visit turned into a brainstorming or problem solving session for the program members. Through this process, the evaluator is able to gain insights into the working of the group and the perspectives of all those engaged in the meeting. In addition, for programs in which the group is not cohesive and has poor or low levels of interaction between partners become clearer through the interviews. In this situation, the participants have the opportunity to make connections with partners with whom they haven't had strong communication (school, university, and industry) - giving each participant greater insights into the program as a whole. Finally, even though the site evaluators ask the PI to invite a representative from each partner, in a number of site visits only the PI is present. Although this situation does not offer the same opportunity for site evaluators to triangulate data or for partners to learn from each other, this does provide an important insight into the structure of the partnership. In most cases where only the PI has been present, the PI has communicated the importance of the role of the PI and his or her organization and the lesser engagement of the other partners in the project.

These site visits, which triangulate data sources (interviews, extant data) as well as stake-holder perspectives (multiple partners are present) provide evidence of how local grants leverage different resources, experiences, and commitments to cultivate partnerships of different quality.

What are the lessons learned at the state level?

Clearly, strong partnerships provide opportunities for the institutionalization of collaborative activities that extend beyond the grant. Rigorous, persistent follow-up is needed to monitor implementation throughout the grant. Several questions become important to guide conversations at the state and local levels and respond accordingly. How can state and local stakeholders leverage resources to improve implementation fidelity? What are the unmet needs at the state and local levels? What are the successes at the state and local levels? How do we improve at the state and local levels? At the state level, there are lessons from the evaluation results related to the proposal process, resources provided for the grant, and technical assistance.

As implementation fidelity issues have arisen, the need for clarifying the federal and state requirements in written instructions during the proposal stage have become clear. Proposal narratives by nature can be vague in important areas or even clearly out of alignment in some way with the state evaluation framework but still receive funding because of the merits of other parts of the proposal. We have learned that grantees do not easily revise their initial proposals even with direct instructions. During troubleshooting implementation fidelity issues, grantees often return to their original narratives to say that they are executing their grant as they originally proposed. We have modified the language in the request for proposals (RFPs) as we have understood areas that are unclear.

Breakdowns in implementation fidelity also provide an opportunity to consider the resources and rules provided in grants to execute the grant. For example, requirements for external (rather than internal) evaluation staff have been added in past RFPs.

Finally, problems with implementation fidelity have made clear that local sites bring different expertise with formal evaluation requirements that require different levels of technical assistance. Workshops, webinars, and technical support documents have been provided by the state evaluator in response to this need.

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Appendix A

IMSP Teacher Satisfaction Survey¹

(This Survey Omitted for Year One Planning Phase)

Please indicate your level of satisfaction with each aspect of your MSP participation.

(Likert scale: Very Satisfied – Very Dissatisfied)

Vision and Mutuality

- 1. Clarity of the vision for IMSP goals and objectives
- 2. Planning process used to prepare the IMSP objectives
- 3. Follow-through on IMSP activities
- 4. Efforts to promote collaborative action with other educators
- 5. Efforts to promote collaborative action with STEM professionals outside the university
- 6. Processes used to assess teachers' needs
- 7. Processes used to assess my students' needs
- 8. Participation of influential people in the IMSP that represent teachers' interests
- 9. Diversity of partners and participants
- 10. Respect, acceptance and recognition of my contributions to reaching the IMSP goals
- 11. Resources provided by my district and/or school to support my commitment to the IMSP grant Leadership
- 12. Strength and competence of IMSP leadership
- 13. Sensitivity to cultural issues
- 14. Opportunities for me to take leadership roles

¹ Adapted from Annual Satisfaction Survey for Community Coalitions. Wolff,T (2003).. A practical approach to evaluating coalitions. In T.Backer(Ed.) Evaluating Community Collaborations. Springer Publishing

15. Trust that partners and participants afford each other

Communication

- 16. Use of the media to promote awareness of the IMSP goals, actions, and accomplishments
- 17. Communication among members of the partnership
- 18. Communication between the IMSP and the broader community
- 19. Extent to which IMSP participants are listened to and heard
- 20. Working relationships established with school officials
- 21. Information provided on issues and available resources

Comments:

<u>Technical Assistance:</u>

- 22. Strength and competence of IMSP faculty and staff
- 23. Training and technical assistance provided by faculty and staff
- 24. Help given the participants in meeting IMSP requirements
- 25. Help given the participants to become better able to address and resolve their concerns

Progress and Outcomes:

- 26. My progress in learning new content through the IMSP grant.
- 27. My progress in using new instructional resources through the IMSP grant.
- 28. My progress in using new STEM technologies through the IMSP grant.
- 29. My progress toward meeting endorsement or certification requirements.
- 30. My access to STEM industry experts through the IMSP grant.
- 31. My access to mentors because of the IMSP grant.
- 32. Fairness with which resources and opportunities are distributed
- 33. Capacity of IMSP teachers to give support to each other

34. IMSP grant's contribution to improving science and/or mathematics instruction in my school.

Please indicate how much you agree or disagree with the following statements.

(Likert scale: Strongly Agree – Strongly Disagree)

Job Satisfaction

- 35. In most ways, being a STEM teacher is close to my ideal.
- 36. My conditions of being a STEM teacher are excellent.
- 37. I am satisfied with being a STEM teacher.
- 38. So far I have gotten the important things I want to be a STEM teacher.
- 39. If I could choose my career over, I would change almost nothing.

Sustainability

- 40. I received important professional benefits from my participation in the IMSP.
- 41. The benefits I received were worth the time, effort, and cost I invested in the IMSP.
- 42. The benefits I received were commensurate with the contributions I made to the IMSP.
- 43. I strongly believe the IMSP should be continued.
- 44. I will participate fully in IMSP activities in the future.
- 45. The IMSP activities need to be dramatically improved to make it worth my investment.
- 46. I will continue to integrate IMSP strategies and materials into my classroom instruction.
- 47. I have access to the resources I need to continue to integrate IMSP strategies and materials into my classroom instruction.
- 48. My district will support my continued integration of IMSP strategies and materials into my classroom instruction.

IMSP School Partner Satisfaction Survey²

Please indicate your level of satisfaction with each aspect of your IMSP partnership.

(Likert scale: Very Satisfied – Very Dissatisfied)

Vision and Mutuality

- 1. Clarity of the vision for the IMSP goals and objectives
- 2. Planning process used to prepare the IMSP objectives
- 3. Follow-through on IMSP activities
- 4. Efforts to promote collaborative action
- 5. Efforts to promote collaborative action between STEM professionals and teachers
- 6. Processes used to assess teachers' needs
- 7. Processes used to assess students' needs
- 8. Participation of influential people in the IMSP that represent a variety of interests
- 9. Diversity of partners and participants
- 10. Respect, acceptance and recognition of my contributions to reaching the IMSP goals
- 11. Resources provided by the partner districts and/or school to support the IMSP grant

Leadership

- 12. Strength and competence of IMSP leadership
- 13. Sensitivity to cultural issues
- 14. Opportunities for me to take a leadership role
- 15. Trust that partners and participants afford each other
- 16. Transparency of decision-making.

² Adapted from Annual Satisfaction Survey for Community Coalitions. Wolff, T. (2003). A practical approach to evaluating coalitions. In T.Backer(Ed.) Evaluating Community Collaborations. Springer Publishing

Communication

- 17. Use of the media to promote awareness of the IMSP goals, actions, and accomplishments
- 18. Communication among members of the partnership
- 19. Communication between the IMSP and the broader community
- 20. Extent to which IMSP participants are listened to and heard
- 21. Working relationships established with school officials
- 22. Information provided on issues and available resources

Technical Assistance:

- 23. Strength and competence of IMSP faculty and staff
- 24. Training and technical assistance provided by faculty and staff
- 25. Help given the participants in meeting IMSP requirements
- 26. Help given the participants to become better able to address and resolve their concerns

Progress and Outcomes:

- 27. Progress in improving teachers' content knowledge through the IMSP grant
- 28. Progress in teachers' access and use of new instructional resources through the IMSP grant
- 29. Progress in teachers' access and use of new STEM technologies through the IMSP grant
- 30. Teachers' progress toward meeting endorsement or certification requirements
- 31. Effective collaboration between STEM industry experts and teachers' through the IMSP grant
- 32. Teachers' access to mentors through the IMSP grant
- 33. Fairness with which resources and opportunities are distributed

- 34. Capacity of IMSP teachers to give support to each other
- 35. IMSP grant's contribution to improving science and/or mathematics instruction in schools

Please indicate how much you agree or disagree with the following statements.

(Likert scale: Strongly Agree – Strongly Disagree)

Sustainability:

- 36. My district received important professional benefits from participation in the IMSP.
- 37. The benefits my district received were worth the time, effort, and cost invested in the IMSP.
- 38. The benefits my district received were commensurate with the contributions made to the IMSP.
- 39. I strongly believe the IMSP should be continued.
- 40. I will participate fully in IMSP activities in the future.
- 41. The IMSP activities need to be dramatically improved to make it worth my district's investment.
- 42. The composition of the IMSP needs to be expanded or changed to be more effective.
- 43. My district has changed the structure, policies, or functions to institutionalize the IMSP goals and activities.
- 44. My district intends to sustain IMSP activities after the expiration of grant funds.
- 45. My district is actively seeking alternative funds to sustain IMSP activities after the expiration of grant funds.

IMSP Industry Partner Satisfaction Survey³

Please indicate your level of satisfaction with each aspect of your IMSP partnership.

(Likert scale: Very Satisfied – Very Dissatisfied)

Vision and Mutuality:

- 1. Clarity of the vision for the IMSP goals and objectives
- 2. Planning process used to prepare the IMSP objectives
- 3. Follow-through on IMSP activities
- 4. Efforts to promote collaborative action between partners
- 5. Efforts to promote collaborative action between STEM professionals and teachers
- 6. Participation of influential people in the IMSP that represent a variety of interests
- 7. Diversity of partners and participants
- 8. Respect, acceptance and recognition of my contributions to reaching the IMSP goals
- 9. Resources provided by the partner organizations to support the IMSP grant

Leadership:

- 10. Strength and competence of IMSP leadership
- 11. Sensitivity to cultural issues
- 12. Opportunities for me to take a leadership role
- 13. Trust that partners and participants afford each other
- 14. Transparency of decision-making.

Communication:

³ Adapted from Annual Satisfaction Survey for Community Coalitions. Wolff, T. (2003). A practical approach to evaluating coalitions. In T.Backer(Ed.) Evaluating Community Collaborations. Springer Publishing

- 15. Use of the media to promote awareness of the IMSP goals, actions, and accomplishments
- 16. Communication among members of the partnership
- 17. Communication between the IMSP and the broader community
- 18. Extent to which IMSP participants are listened to and heard
- 19. Working relationships established with school officials
- 20. Information provided on issues and available resources

Technical Assistance:

- 21. Strength and competence of IMSP faculty and staff
- 22. Training and technical assistance provided by faculty and staff
- 23. Help given the participants in meeting IMSP requirements
- 24. Help given the participants to become better able to address and resolve their concerns Progress and Outcomes:
- 25. Progress in improving teachers' content knowledge through the IMSP grant
- 26. Progress in teachers' access and use of new instructional resources through the IMSP grant
- 27. Progress in teachers' access and use of new STEM technologies through the IMSP grant
- 28. Teachers' progress toward meeting endorsement or certification requirements
- 29. Effective collaboration between STEM industry experts and teachers' through the IMSP grant
- 30. Teachers' access to mentors through the IMSP grant
- 31. Fairness with which resources and opportunities are distributed
- 32. Capacity of IMSP teachers to give support to each other
- 33. IMSP grant's contribution to improving science and/or mathematics instruction in schools

Please indicate how much you agree or disagree with the following statements.

(Likert scale: Strongly Agree – Strongly Disagree)

Sustainability:

- 34. My organization received important professional benefits from participation in the IMSP.
- 35. The benefits my organization received were worth the time, effort, and cost invested in the IMSP.
- 36. The benefits my organization received were commensurate with the contributions made to the IMSP.
- 37. I strongly believe the IMSP should be continued.
- 38. I will participate fully in IMSP activities in the future.
- 39. The IMSP activities need to be dramatically improved to make it worth my organization's investment.
- 40. The composition of the IMSP needs to be expanded or changed to be more effective.
- 41. My organization has changed the structure, policies, or functions to institutionalize the IMSP goals and activities.
- 42. My organization intends to sustain IMSP activities after the expiration of grant funds.
- 43. My organization is actively seeking alternative funds to sustain IMSP activities after the expiration of grant funds.

Appendix B

Protocol for Implementation Phase

1. Partnership Composition.

<u>History:</u> What is history of the university in the community or with the partners? Did the university (or parts of it) have experience with or a record of engagement in community outreach, community service or applied research in the past? [Were these efforts coordinated? Was there a pre-existing partnership/program within the University that preceded the IMSP? If so, what role does that office have on the work of the IMSP? What is the relation between the IMSP and the program? Is there a University unit that oversees the work of this center? What was the relationship between the university and the community partners in the IMSP prior to the ISBE application?

For collaboration between colleges within IHE: What was the relationship among the colleges prior to the IMSP? Were their prior relationships with each other similar or different? In what wav?

Process. What was the process for creating the IMSP? [How did the IMSP partners develop the application to ISBE? Did community or school partners contribute to the application, review the draft, etc.? How did the IMSP partners refine the partnership relationships after receiving the grant? Are there any groups that should have been included that were not part of the IMSP?

For collaboration between colleges within IHE:: Did both/all schools participate in developing the IMSP proposal? How were the roles defined? How were responsibilities assigned?

Staffing. How is the IMSP staffed? [Have new staff been hired to conduct the work of the IMSP? What positions were filled? Where did the candidates come from? How many staff members

work (will work) for the IMSP? What policies are in place for the replacement of staff as needed?]

For collaboration between colleges within IHE: Are IMSP staff drawn from both/all institutions? Are faculty and students from both/all institutions involved in IMSP? Context. What is the school environment for IMSP reform? [What are the major educational initiatives in the city/region/state? How has the IMSP related to these efforts? Can the IMSP have improved coordination with other programs to achieve greater outcomes? Are there resources for and attention to these issues? What is the context for university funding? What other programs are competing for university resources and attention?]

For collaboration between colleges within IHE: How does the institutional context for the IMSP differ among the schools?

2. Organizational Structure of Partnership.

Structure. What is the structure of this IMSP? Does the IMSP have an advisory board(s) and what is its role? Is there a sense of equity among the partners? [Who are the board members and what are their respective affiliations? What is the governance of the IMSP? How are decisions made? By whom? Are community / school perspectives valued and respected? What are the roles of the university, community/ school in the IMSP? To what degree have universitycommunity/school relationships constituted a partnership? (Not at all, somewhat, to a moderate degree, to a great degree)]

For collaboration between colleges within IHE: What are the respective roles of the colleges in the IMSP? Do all schools participate equally in governance and decisionmaking? How is accountability by each school to the partnership determined? How are imbalances in institutional resources compensated for? Is the IMSP seen as an

opportunity for faculty and student collaboration among the schools, or as individual efforts under a single banner?

Location within the University. Is there a specific space designated for the IMSP within the university? What parts of the university are involved with the IMSP? What structures, policies and/or practices of the university support community outreach or hinder outreach activities? [Where is the IMSP physically housed? What was the rationale for its placement? Is the IMSP embraced by the leadership of the university? If so, how?]

For collaboration between colleges within IHE: Where is the IMSP located in the consortium? Why?

Artifacts: IMSP Membership list, IMSP/ IHE organizational chart

3. Action Plan and Operational Guidelines

IMSP Program Areas. What is the nature of the IMSP program and how ambitious is it? [What program areas does the IMSP address? What is the scope and sequence of the new program?]

For collaboration between colleges within IHE: Are program areas divided by schools? If so how? Or do the schools work jointly on the same project areas?

Operational Guidelines. What formal agreements are in place to define, establish, and support communication and collaboration between partners? Who established these guidelines?

Artifacts: Logic Model, Evaluation Framework, Data Analysis Plans, IBHE proposal

4. Quality of Partnerships

Mutuality & Trust. Do the goals and objectives of the IMSP address mutual needs across partners? What are the perceptions of trust across partners? Is there a sense of safety for sharing of information and resources? What steps have partners taken to build trust? What is the nature of most interactions between partners? Face-to-face? Email? What was the nature of

relationships between partners before the IMSP? How respectful is the IMSP to differences in cultural and organizational norms, values, and beliefs? How transparent are the IMSP operations? Is their equality in decision-making? Is there reciprocal accountability? Is there a balance in the representation of all partners in the IMSP? Does leadership across partners work closely together? Is there enthusiasm surrounding IMSP goals and activities?

For collaboration between colleges within IHE: What is the nature of relationships between colleges? Is there a sense of equality in decision-making and resources? Is there a respect for differences in cultures? Is there shared enthusiasm for the IMSP?

Artifacts: Meeting agendas, minutes

Leadership. Who are the leaders of the IMSP? [Who led the development of the IMSP application? Are there one or more persons taking leadership? What is their role in the institution? What is their continuing role in the IMSP? Was there participation from the top levels of the institution?]

For collaboration between colleges within IHE: Is leadership for the IMSP shared among the colleges? Is there a key person at each school leading the IMSP? Is there participation from top levels at both/all schools?

Resources. Has the IMSP received matching funds? [From what sources? How does this compare with the initial proposal? Are there adequate resources to accomplish IMSP goals? Are resources sufficient for all partners?] limited not just to financial resources but extending to managerial and technical skills, contacts, information and the like;

For collaboration between colleges within IHE: How will resources be divided among the institutions? Did all/both schools provide matching funds?

Artifacts: Budget summary/narrative

Communication. What are the guiding principles for your IMSP? Is there shared decisionmaking between partners? What are the primary vehicles for communication? Is there a formal management and communication plan? How are conflicts resolved in the partnership? Artifacts: Meeting agendas, meeting minutes, newsletters, websites, other forms/policy

statements

Appendix C

Member Check Survey



Each grant has been sent a .pdf representing the profile written by your state site evaluator focusing on four specific areas: Partnership Composition, Organizational Structure, Action Plan and Operational Guidelines, and Qualities of the Partnering Relationship.

The profiles across all grants will be analyzed to report on trends across the state in terms of the funded IMSP partnerships. Individual profiles will be submitted to the ISBE in an Appendix as part of year end report. A redacted version will be submitted as needed using pseudonyms for partners as indicated by individual grants. The redacted version will be disseminated as appropriate at the discretion of the ISBE.

The purpose of this survey is to provide grantees an opportunity to clarify or provide alternative perspectives on the profiles being submitted to the ISBE in the year-end report. If you are comfortable with the content of the profile as written by the site evaluator, no response is needed. All responses submitted on this form will be appended to your site evaluator profile unedited.

Comments about your IMSP Partnership Composition profile summary:		
4		
Comments about your IMSP Organizational Se	tructure profile summary:	
4	<u> </u>	
Comments shout your IMSD Action Plan and	Onerational Chidelines are file summers.	
Comments about your IMSP Action Plan and (Operational Guidelines profile summary:	
4	▲▼▶	

Comments about your IMSP Qualities of the **Partnering Relationships** profile summary:



Identification in redacted report:	Yes	No
Would you like the redacted report to use a pseudonym for university partners?	0	0
Would you like the redacted report to use a pseudonym for school partners?	0	0
Would you like the redacted report to use a pseudonym for industry partners?	0	0