A STUDY OF THE MARS PROJECT: THE CONTRIBUTIONS TO CLIENTS

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Abstract

As part of its broader evaluation of the MARS project, Inverness Research Associates recently conducted interviews with MARS clients. Researchers sought to ascertain judgments about four major dimensions of the MARS services. These dimensions include: quality; usefulness; uniqueness; and the extent to which MARS services are a "substantial improvement" over other assessment-related services.

Researchers heard many common themes from clients. MARS clients are largely reformoriented local leaders who want to use assessment to further their work rather than act as a barrier to it. They noted, however, that assessment is a domain in which there is a dearth of local capacity, resources and support mechanisms to do high-quality innovative work. Importantly then, they reported that MARS helps clients address assessment issues in a variety of settings and at different levels of the system, and in a new and substantially improved manner. The project staff work closely with clients to develop exemplary and appropriate tasks which uncover the students' knowledge and capacity. They also provide rich professional development for teachers to learn more about assessment and how to use it to understand student thinking, and to inform classroom practice. Ultimately, MARS helps clients to bridge the gap between the lack of capacity and the desire to provide meaningful assessments for students.

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Executive Summary

As part of its broader evaluation of the MARS project, Inverness Research Associates (IR) recently conducted interviews with MARS clients. The interview protocol focused on the clients' motivation for contacting and working with MARS, as well as four major dimensions of the MARS services. These dimensions include: quality; usefulness; uniqueness; and the extent to which MARS services are a "substantial improvement" over other assessment-related services. We were able to interview 11 of 14 MARS clients by phone in the fall of 2000. The clients included representatives from districts, reform projects and state education departments all over the country.

FINDINGS

Researchers asked about each of the four major services MARS provides to its clients. These include assessment development; data analysis and reporting; and two main types of professional development – on-site support for teachers and teacher leaders who are using MARS assessments in their classrooms, and Balanced Assessment workshops where teams of educators are trained to be assessment leaders in their own local settings.

Quality

MARS clients found MARS services to be of consistently high quality. On a scale of 1-5, clients almost always rate MARS work a "5." Further testament to the project's quality is that most would "absolutely recommend" MARS to others. In particular, people were impressed by the richness of the assessment tasks MARS provided them; the ways in which MARS made explicit the important link between assessment, professional development and instruction; and the way MARS customized its support to meet clients' needs.

Usefulness

According to its clients, MARS gives people tools, knowledge and support to develop, implement and reflect on alternative assessments in their local settings. In particular, clients found the MARS assessment tasks and rubrics to be very useful, noting that students and teachers learned an enormous amount from "the doing" of their tasks, but also from the scoring of them. In another instance, as client teams faced the daunting prospect of training large groups of other teachers in the use of MARS assessments, they were supported by the "leader guides" created by the MARS staff. Indeed, MARS professional development generally, through the cascade model, also offers participants explicit ways to help teachers and teacher leaders implement and learn from assessments other than those used in a typical high stakes accountability system.

Uniqueness

The majority of interviews revealed that MARS is a unique project, offering innovative services. Again, most notable is MARS' way of marrying assessment and professional development, each of which informs instruction. In this way, MARS adds value to clients' work that other assessment projects could not.

Further, clients consistently said that MARS staff were different than others with whom they have worked. MARS staff members have unique qualifications and their collective expertise spans a wide range. Thus it is not surprising that a great majority of interviewees praised the nature of the feedback they received from the MARS staff. The staff is skilled at forging a true collaboration with the client. "I've never heard of anyone [other than MARS] who picks test items out of their bank to fit your needs [and then offers direct feedback about them]. That is really, really unique."

Substantial Improvement

In much the same way that MARS was judged to be unique, interviewees deemed both the services and the supports that accompany them to be a "substantial improvement" over other similar assessment services and supports. As noted by one seasoned district specialist, "I could have gone anywhere I wanted to for this kind of service, my bosses had no requirement for me. So I chose where I wanted to go -- to MARS." The intellectually rigorous nature of the tasks, professional development and staff support were highlighted again.

SUMMARY

MARS clients are largely reform-oriented local leaders who want to use assessment to further their work rather than act as a barrier to it. MARS is a unique resource that helps clients address assessment issues in a variety of settings and at different levels of the system, offering assessment support in a new and substantially improved manner. The project staff not only work closely with clients to develop exemplary and appropriate tasks which uncover the students' knowledge and capacity; they also provide rich professional development which develops the user but also informs classroom practice. Ultimately, MARS helps clients to bridge the gap between the lack of capacity and the desire to provide meaningful assessments for students and teachers.

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Report Findings

INTRODUCTION

The Math Assessment Resource Service (MARS) contracted Inverness Research Associates to evaluate their work in designing alternative assessments and providing related professional development for their diverse client base. The evaluation work has included observations and documentation of MARS professional development sessions, review of MARS tasks, meetings with MARS leadership, and most recently, a "double blind" research study, with site visits to schools where MARS assessments are being utilized. Furthermore, in an effort to ascertain more specific feedback about MARS work in the field, the evaluation has involved phone interviews with MARS clients.

Purpose and Method

For the phone interviews, the MARS leadership provided Inverness Research with a list of their clients from the time their work began in 1997. From that list researchers selected a subset of interviewees who represented the spectrum in terms of type of client (e.g. district, teacher enhancement project), kind of work solicited, relationship with MARS. We designed an interview protocol¹ which, among other things, focused on the clients' motivation for contacting and working with MARS. The protocol also focused on four major dimensions of the services the project provides:

- quality;
- usefulness;
- uniqueness; and
- the extent to which MARS services are a "substantial improvement" over other assessment-related services.

Researchers conducted interviews over the phone; on average interviews lasted 45 minutes. Interviewees were offered a stipend of \$75 to speak with researchers. After we conducted an initial set of interviews, MARS leadership asked that we expand our interview list to include the great majority of MARS clients – approximately 14 people.

Numbers and Types of Clients Interviewed

We were able to interview approximately 78% (11) of the contacts on our list. The clients included districts, reform projects and state education departments. Specifically, we conducted interviews with people who are responsible for assessment in those settings – district math

¹ A copy of the Interview Protocol can be found in the Appendix.

specialists, associate superintendents, Local Systemic Change (LSC) project and Urban Systemic Initiative (USI) math consultants and project directors, state math specialists, and teachers on special assignment.

This Report

The following report highlights the findings from the MARS client interviews. Immediately following this introduction, the section entitled "Findings" describes the nature of MARS work and presents how clients judged the quality of MARS services, as well as what they viewed as the specific contributions of those services. At the end of this section we note some of the project's emerging issues and challenges.

The final section of the report, "Summary of Findings," lays out some of the more general issues raised in the interviews, examining them in the context of the landscape in which MARS must work.

FINDINGS

Nature of MARS Work

MARS provides four major services to its clients. These include assessment development; data analysis and reporting; and two main types of professional development – on-site support for teachers and teacher leaders who are using MARS assessments in their classrooms, and Balanced Assessment workshops off-site where teams of educators are trained to be assessment leaders in their own contexts. We briefly describe each service in more detail below.

Assessment Development

MARS staff works with district and projects leaders to design targeted mathematics assessments – known as tasks – for students at specific grade levels. These could include in-classroom tasks or district testing items. In addition, MARS staff and its clients usually collaborate to implement accompanying rubrics, scoring training and other professional development directly linked to those services.

Data Analysis and Reporting

MARS supports a process by which student scores and demographic data received by the client are translated into reports on student performance across the client system (and sometimes subsets of it). These reports are written with a varying degree of detail, depending on the needs of the client. Some clients use this service to compare their students' performance on MARS tasks with their scores on standardized tests.

Professional Development – On-site Services

This service is intended for teachers and teacher leaders working to align assessments either with state or district standards or with mathematics curricula based on the National Council of Teachers of Mathematics (NCTM) standards. The assessments are an alternative to most standardized tests that do not match the aims of a curricular program. The goal of these sessions

is to help teachers better understand the role that assessment can play in their own classrooms. The MARS staff hopes that by using Balanced Assessment-MARS (BA-MARS) tasks with their students over the long-term, teachers will be able to reflect on what those assessments reveal about their students' understandings and can reshape their instructional practice accordingly. These workshops range in scope from one-day sessions to a series to monthly meetings with the same group of teachers and leaders.

Professional Development - Balanced Assessment Workshops

After three years of conducting only on-site professional development services, in 1999-2000 MARS staff designed workshops to occur at Michigan State University. The MARS staff designed these workshops using a "cascade approach" in which client sites send a leadership team to participate. These leadership teams offer and support the professional development of mathematics teachers in grades 3-8 when they return to their local districts. In the last year MARS has offered a four-session series to two different groups representing schools, districts, SSIs, LSCs, state education departments and a privately funded regional math collaborative.

The Quality of MARS Work

Overall, MARS clients found MARS services to be of consistently high quality. On a scale of 1-5, clients almost always rate MARS work a "5." Further testament to their quality is that most would "absolutely recommend" MARS to others. Interview participants highlighted the following elements of MARS work when asked about quality.

Rich tasks

All those interviewed reported that the MARS tasks are "excellent." They found them to be complex without being complicated, student-centered and mathematically sound in a way that other assessment items simply are not. Clients liked that the assessments seek to uncover what students really know and are able to do. One state math consultant reported:

They [the MARS tasks] really get at thinking and reasoning and I just don't think they will gather dust because they are too rich.

One district specialist related a story of one her teachers using a BA-MARS task in her classroom while her principal conducted a scheduled evaluation of her teaching. Evidently he judged her work to be outstanding in all but one area which he found to be missing – assessment.

The teacher laughed! It was nothing but an assessment task, but the principal had no idea. He thought she was doing a lesson. But that's way it's supposed to be; the lesson and the assessment should be basically indistinguishable. And now the principal wants to know about MARS and its tasks.

Most agree that the tasks are of high quality precisely because they are fully compatible with NCTM standards-based teaching, furthering students' mathematical thinking.

They are intellectually rigorous... really meaty items, and they are meant to be; that is what we like about them.

• Thoughtful project design

All clients praised the integrated nature of MARS work – that it is not merely an assessment service providing exemplary test items, but that learning about and using the assessments ensures a valuable professional growth opportunity for teachers. The assessments and the professional development that accompany them are inevitably and inextricably linked. Moreover, people we interviewed particularly valued the project's ability to use assessments and professional development as vehicles to help teachers recognize the capacities of their students and change their practices based on those highlighted strengths and needs.

We wanted teachers to look at the task - see the richness in the task, see the mathematics in the task, and try it out in their classroom. And then look at that student work and learn by analyzing that student work...the intent is that the focus is not assessment but instruction.

• Staff support

MARS staff were commended by almost every client for the quality of their support – most pointedly their flexibility, responsiveness and accessibility. In addition, those interviewed reported that MARS customized its support to meet the varying needs of particular projects.

We gave MARS a set of standards and they would show us questions and we'd say, 'no that's not the level of difficulty we want', or 'we like the general idea of this question but we need you to hone in on a couple of questions because they more meet our standards.' They were really willing to work with whatever our restrictions were and tailor the work to what we trying to accomplish. They really spent a lot of time talking things over with us.

We got the attention we needed. They listened, kept telling us it was our project, and that we could do it. They were very informative in terms of giving us the theory of performance assessment...everyone was learning a lot.

Another reason clients found the staff to be of such high quality is due to their experience. As individuals and as a group the staff possess impressive mathematics and education backgrounds which only aids and legitimizes their direct work with teachers.

The teachers adore them...This type of [assessment work] can be hard for teachers; [MARS staff] have a wonderful way of introducing it to them.

"MARS staff could relate to teachers and teachers could relate to them.

Specific Contributions of MARS

In seeking to illuminate the specific contributions of MARS services, we wanted to find out the degree to which and the ways in which those services were useful, new or substantially improved compared to parallel services in the field.

Usefulness to the Client

According to its clients, MARS gives people tools, knowledge and support to develop and implement and reflect on alternative assessments within the context of their own settings.

Assessment tools

There are a variety of tools that MARS shares with its clients, but those mentioned most often were the MARS assessment tasks and rubrics. Clients found both of these tools to be very useful. Students and teachers learned a substantial amount from "the doing" of their tasks, but also from the scoring of them (based on the MARS 4-point rubric system).

The tests [and rubrics] have been really useful in building a common definition of a good quality student response, and building a way of looking student work so that teachers really focus on evidence.

I have learned how to look at student work in a whole different way, to really say, 'what do these marks on this page tell me about their [the students'] understanding...'

Other clients added that the ways in which rubrics help teachers reflect on the instructional implications that arise from their students' work were critical. In this way, MARS gives clients tools that deepen teachers' pedagogical knowledge but also expand their content knowledge.

This gets [teachers] really looking at critical pieces of mathematics so they can analyze where student errors are and then talk about what kind of mathematical experiences students need to correct those errors.

The other major tool that clients mentioned were the "leader guides" MARS provides to leadership teams participating in their professional development. As teams faced the daunting prospect of training large groups of others in the use of MARS assessments, they were supported by the leader guides created by the MARS staff.

I knew we were going to have to train another set of teachers the following year and I didn't know how we were going to do that without the help of the Michigan State folks. But when we went to the workshop, we got all of their materials and we were able take that as a guide, use some of it straight up...but we could also use their work and tweak it to our needs and they were very helpful in helping us see how to do that.

• Vision and structure

Interviewees indicated that MARS work provides clients with a vision and a structure to build an alternative assessment program. The tasks and rubrics provide this structure most concretely, but the professional development, through the cascade model, also offers participants explicit ways to help teachers and teacher leaders implement and learn from assessments other than those used in a typical high stakes accountability system.

Supported by such a structure and vision, clients can move forward with the multi-layered work of supporting teaching and learning by way of meaningful assessment which is directly linked to instruction. As one specialist in an NSF-supported project said:

...In our project we had developed] a vision of using multiple assessment strategies to have students demonstrate their learning, so we had started that thrust but MARS allowed us to develop a structure for the in-services and the professional development and using the teacher leaders as a mechanism for building capacity.

In addition, some saw MARS data analysis and reports as useful insofar as they helped them demonstrate to others the benefits of enlisting multiple measures to assess students.

One of the challenges is to get folks to value this [MARS assessment] in the same way that they do the other [SAT 9], and this includes people at all levels of the district...[The MARS reports can] provide good information about students and their mathematical understanding and can give you a different way to report to your public about what's going on. The more that we can get people to try to buy in that way the better.

Uniqueness

The majority of interviews reported that MARS is a unique project, offering unique services. People of course had heard of other similar assessment-related efforts; the New Standards work was most notable. Even so, most clients saw MARS services as being quite different, for the following reasons:

• The link between assessment, professional development and instruction

As noted earlier, clients who sought MARS assessments did so not only for the quality of the tasks but also because they recognized the strength of the accompanying MARS professional development. Clients and their teachers gained knowledge from learning about and implementing the assessments but many also participated in targeted workshops which clearly furthered their understanding of assessment and mathematics more generally. In this way, MARS added value to their work that other assessment projects could not.

If it's just for assessment I don't want it. We have plenty of statewide tests; I don't need anything more that will just assess. I need something that's going to help those teachers inform their teaching. MARS does that very well. They tie it back to 'what you are going to do [in the classroom].'

One reform project leader described how MARS tasks and professional development furthered the instructional work she continually pushed with her teachers.

[In those MARS sessions] teachers were engaged in finding out the mathematics in the problem. You're not doing a problem for the sake of doing a problem but you are doing it because you want to teach a particular concept. And that is something that we are trying to drive home all the

time. And I think the way in which the professional development was conducted and the way the task identifies right up front what's the mathematics, what are you looking for, what are you doing - it's really good.

• The expertise of MARS staff

Clients consistently said that MARS staff were different than others with whom they have worked. MARS staff members have a unique set of qualifications and their collective expertise spans a wide range. Between all of them, they have deep knowledge of mathematics, mathematics education, teaching and assessment. As one state math consultant noted:

I don't think anyone does [these kinds of services] as well...You are talking about incredible people with access to a full range of resources.

The perception is that MARS staff are experts in their field and true teachers, working side by side with their "students" (who, like students in a classroom, come to the table with a full range of abilities and experiences) to develop their knowledge meaningfully.

I think the expertise [has affected] the intellectual growth of our staff members as they work with the MARS staff. The collaborative nature of the work ...was really critical.

• Specificity of feedback

A great majority of clients praised the nature of the feedback they received from the MARS staff. As the director of a large math reform project noted:

There are people in performance assessment who write nice questions or similar types of questions, but when they do the scoring it's still a black box, [as when you use] multiple choice items. [In those situations], you don't get that kind of specific feedback, and you just take whatever 'they' think is appropriate for that grade level. I've never heard of anyone [other than MARS] who picks test items out of their bank to fit your needs [and then offers direct feedback about them]. That is really, really unique.

MARS staff help all clients reflect on the scores of its students, but with some clients they provide in-depth analysis and reporting. The kind of reporting was also seen as unique, largely because it not only helps clients interpret scores with real specificity, but also surfaces instructional implications. For example, in the body of such a report the authors pick a sample question at each grade level and show student responses and then discuss what can be learned – specifically and globally – from actually looking at student work. Data showing overall scores for a particular client's students are also disaggregated by race, gender, and socioeconomic status. The report also shows which tasks (and parts of tasks) could be done by which groups of students.

For many clients who use this MARS service, what is most compelling is the MARS report that compares students' work on MARS tasks with their performance on state (or district) standardized tests. One project noted that students scoring in the bottom quartile of the

standardized test received scores of 3 and 4 on the MARS tasks, where they needed to explain their thinking. The project director explained:

Based on the state standards these students would be considered for retention, and yet they are above standard on a really hard performance assessment task. It really points out the need for multiple measures.

In addition, other gaps between the two kinds of assessment scores – e.g. related to socioeconomic status and gender – are reported. These points provide clients important information that can be shared with those who cannot see the need for alternative assessments.

Substantial Improvement

In much the same way that MARS was judged to be unique, interviewees deemed both the services and the supports that accompany them to be a "substantial improvement" over other similar assessment services and supports. As noted by one seasoned district specialist, "I could have gone anywhere I wanted to for this kind of service; my bosses had no requirement for me. So I chose where I wanted to go – to MARS." Again, clients consistently mentioned a few key features of MARS work that set it apart from its critical competitors.

• Intellectual quality of MARS services

As is noted above, many of those we interviewed were extremely complimentary of the intellectually rigorous nature of all MARS services. In their experience, MARS work was superior to almost all other assessment services in this regard. The point scoring rubric used by MARS, with its thoughtful design, is a good example of such "improvement."

Using holistic rubrics, teachers focus on both the answer <u>and</u> the evidence to support the answer that the student has provided. This is quite different from the traditional approach to grading – when an answer is incorrect, teachers "tend to dismiss it [rather] than to understand what the student was thinking." As many elementary teachers are not sufficiently equipped with the mathematics background to trace student thinking through their written work on a task, they can easily overlook the meat of the student's understanding. In contrast, the point scoring rubric allows scorers to give points for each portion of the task.

This way [of scoring] asks, 'what is the student not paying attention to?' That's where you get real growth because it gets teachers to think about the whole student response. They can realize 'if I just ask the student a couple of little questions, then this kid will really get it, and it's not a "0" paper. It's actually a really nice piece of thinking.'

Customized support

As mentioned previously, MARS work is tailored quite specifically to each client, something that was valued highly. Clients were especially pleased when the service connected directly to their curriculum. Few other assessment projects are able to work as closely with district and math project leaders to ensure that the curriculum teachers are being asked to teach is supported by assessments that align with rather than contradict it.

• Scoring as professional development

The notion that learning about and giving MARS assessments is important professional development for teachers was a recurrent theme in our interviews. But beyond that, some clients reported that as teachers scored the tasks they gained a deeper understanding of mathematics, their students' thinking and their own teaching. Even when other testing services provide thoughtful test items, the scoring they offer does not involve teachers in the process.

So much is learned by teachers in the process of scoring. A major piece of in-service just happens through the grunt work of scoring.

Emerging Issues and Challenges

During the interviews, some clients mentioned a few issues related to the MARS services. These concerns focused on the capacity of the MARS staff, the changing landscape of mathematics education and accountability, and the expense of the MARS services. We explain each of these areas more fully below.

• Capacity of MARS

The MARS client base has grown dramatically since 1996. A few of those interviewed who have worked with MARS for a number of years have experienced some frustration with the timeliness of their work lately. For example, one district math specialist waited for some time before receiving certain tasks she had been promised by MARS. While her feedback about early MARS work was extremely positive, she lamented the project's apparent inability to be realistic about their workload as they expand.

Other clients talked about insufficient communication and unsatisfactory timeliness with regard to the data analysis. Some interviewed awaited data and reports by a certain date and were assured by MARS that the product would be delivered. But because of changing computer programs and an overload of requests, such analysis was delayed in some instances. A handful of clients echoed sentiments that this delay had caused "a lot of frustration". Given that almost all clients noted the importance of the close relationship they shared with MARS staff, it seems an essential ingredient to the success of their work, and worthy of attention.

• Working within the shifting landscape of mathematics education and accountability

It is unclear how the current accountability pressures will affect a project like MARS. Certainly things are getting more and more difficult in the current national terrain. Teachers are in the tough position of trying to teach and assess students in standards-based ways, and yet there is more intense pressure to abandon everything in favor of the standardized tests. Even those who are part of reform projects, slated to implement innovative NSF curricula, noted that the schools with whom they work are more and more likely to feel forced to discard those curricula in favor of "drill and practice" flavored programs. Most teachers haven't given up on teaching and learning at a deeper level (though some have); some find they must use a combination of curricula and some schools use NSF curricula only as a supplemental program now.

Expense

Some clients mentioned the high cost of MARS tasks. None viewed the expense as being a major barrier at this point, but we wondered if an alternative service that is costly to implement and score might eventually run into vocal or active opposition.

SUMMARY

• MARS helps bridge the gap that tends to exist between the lack of capacity and desire to provide meaningful assessments for students and teachers.

MARS clients are largely reform-oriented local leaders who want to use assessment to further their work rather than act as a barrier to it. However, assessment is a domain in which there is little local capacity and lots of confusion and strife. Furthermore, there are few resources and sources of support for districts or projects to do high-quality innovative assessment. And yet, assessment is a central focus and lynchpin in state and local improvement efforts. MARS addresses the real need of providing meaningful, content rich assessment tasks and a method of scoring that contributes to improving mathematics teaching and student learning as opposed to hindering it.

 MARS work helps clients address assessment issues in a variety of settings and at different levels of the system. The project offers assessment support in a new and substantially improved manner.

The project is a unique resource and source of support that works with clients in a flexible, thorough and thoughtful manner. The collaborative nature of the work allows its clients to progress in efforts to improve teaching and learning and the assessment of it.

As I am telling [the project] what our needs are, [MARS] is thinking and presenting things to me...together we are logically painting this picture of what our final outcome is and what we want teachers to go away with and how we want teachers to make changes in their classroom.

THE STUDY OF THE MARS PROJECT:

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APPENDIX A

MARS Client Interview Protocol -- **November 2000**

[IR has been hired by the MARS project to conduct an external evaluation of the project. As part of the external evaluation, we are interviewing MARS clients to understand the ways in which MARS has been working with schools/districts/states, how well clients feel they are being served, and how clients benefit from the MARS services. We are offering a \$75.00 honorarium.]

Background

What is your exact position, title?

Give me the brief context of your school/district/state:

size; number of schools/districts; number of teachers; number of students; ethnic/SES breakdown; major characteristics; governance landscape; education priorities, current reform efforts.

Tell me about the current math program, what are the current priorities and foci? What curricula and assessments currently exist? What are the major influences that shape mathematics education in your school/district/ state?

What are the recent issues, concerns, changes, accomplishments?

How did these come about? How would you describe the direction the school/district/state is moving in with regard to mathematics and assessment?

Making Contact with MARS

How did you hear about MARS?

What are/were your priorities and purposes in using MARS services? [What did you hope to get out of your work with MARS? What was expected of you? Were the expectations clearly explained to you? What were your long-term goals?]

Who was involved in making the decision to contact MARS? How did you decide which MARS services to use? [Did you know about the different services offered when you contacted them?]

What kind of planning, preparation work did you do with MARS staff to design the services they would provide for you? Did you actively participate in the planning of those services? Did you feel work was adequately tailored to meet the specific needs of your situation?

The MARS Services

What were the exact services MARS provided for you?

- -assessment design and development;
- -data analysis and reporting;
- -professional development (on-site or BA-MARS Workshops);
- -other?

[Only ask those questions which apply to the MARS service provided]

> Assessment Design and Development

- Briefly, please describe the assessment development work MARS did with your district/project.
- How did the MARS work fit into the context of what your district/project is already doing (in assessment, pd, etc.)?
- Have you had a chance to implement the new assessments or tasks? If so, how were they implemented? How did it go? Were there any issues or obstacles? How were the results used?
- How would you rate the overall **quality** of this service?

On a scale of 1-5, with 1 being poor quality and 5 being very high quality. Please give specific examples to illustrate your rating.

• How would you rate the overall **usefulness** of this service?

On a scale of 1-5, with 1 being not useful and 5 being very useful.

Please give specific examples to illustrate your rating.

- -How are the MARS assessments and scores used most: for <u>professional development purposes</u>? for <u>assessment purposes</u> (e.g. as internal district feedback, to inform classroom practice)? for <u>more political purposes</u> (to inform the public about alternative forms of assessment etc)?
- How would you rate the overall **uniqueness** of this service?

On a scale of 1-5, with 1 being not unique and 5 being very unique.

Please give specific examples to illustrate your rating.

- -What makes it new or different?
- How would you rate the overall extent to which this service is a "<u>substantial improvement</u>" over other assessment-related services?

On a scale of 1-5, with 1 being no improvement and 5 being substantially improved. Please give specific examples to illustrate your rating.

- -Is the work done by MARS a substantial improvement over the services provided by its critical competitors?
- Has MARS helped you/the teachers/the public (if need be) "make the case" for widespread use of alternative assessments in your district/project?
- Regarding the so-called 3-legged stool of curriculum, assessment and professional development, 1) to what extent are these 3 coordinated in your district/project, e.g. is there currently a bridge between them? 2) Has MARS helped to articulate and strengthen that relationship? How?
- What is the perception of others in the school/state/district about the role, relationship and fit of the MARS work with the overall mathematics and assessment programs?
- What are the plans for the future? Will you continue with this MARS work? Why or why not?

> Data Analysis and Reporting

- Please describe the data analysis and reporting work MARS did with your school/district/state.
- How would you rate the overall <u>quality</u> of this service?

 On a scale of 1 –5, with 1 being poor quality and 5 being very high quality.

 Please give specific examples to illustrate your rating.
- How would you rate the overall <u>usefulness</u> of this service?
 On a scale of 1 –5, with 1 being not useful and 5 being very useful.
 Please give specific examples to illustrate your rating.
- How would you rate the overall <u>uniqueness</u> of this service?

On a scale of 1-5, with 1 being not unique and 5 being very unique.

Please give specific examples to illustrate your rating.

- -What makes it new or different?
- How would you rate the overall extent to which this service is a "<u>substantial improvement</u>" over other assessment-related services?

On a scale of 1-5, with 1 being no improvement and 5 being substantially improved. Please give specific examples to illustrate your rating.

- -Is the work done by MARS a substantial improvement over the services provided by its critical competitors?
- How is/was the data analysis and reporting used in your school/district/state? How did it go?
- Has MARS helped you/the teachers/the public (if need be) "make the case" for widespread use of alternative assessments in your district/project?

- What is the perception of others in the school/state/district about the role, relationship and fit of the MARS work with the overall mathematics and assessment programs?
- What are the plans for the future? Will you continue with this MARS work? Why or why not?

> Professional Development: On Site Services

- What was the nature of the on-site professional development services that MARS provided for you?
- What were the residual effects of this on-site work with teachers:
- -Are teachers using BA-MARS tasks in their classrooms? In what ways?
- -Has MARS work influenced teachers' vision and use of classroom-based assessment?
- -Has MARS work had any more indirect effects, e.g. changes in classroom practice, curriculum decision making and use?
- -Has teachers' knowledge of mathematics been influenced at all through the MARS work?
- How would you rate the overall <u>quality</u> of this service?

 On a scale of 1 –5, with 1 being poor quality and 5 being very high quality.

 Please give specific examples to illustrate your rating.
- How would you rate the overall **usefulness** of this service?

On a scale of 1-5, with 1 being not useful and 5 being very useful.

Please give specific examples to illustrate your rating.

- -How are the MARS tasks and scoring learned in these workshops used most: for <u>professional development purposes</u>? for <u>assessment purposes</u> (e.g. in-classroom or district use)? for <u>more political purposes</u> (to inform the public about alternative forms of assessment etc.)?
- How would you rate the overall **uniqueness** of this service?

On a scale of 1-5, with 1 being not unique and 5 being very unique.

Please give specific examples to illustrate your rating.

- -What makes it new or different?
- How would you rate the overall extent to which this service is a "<u>substantial improvement</u>" over other assessment-related services?

On a scale of 1-5, with 1 being no improvement and 5 being substantially improved. Please give specific examples to illustrate your rating.

- -Is the work done by MARS a substantial improvement over the services provided by its critical competitors?
- What is the perception of others in the school/state/district about the relationship and fit of the MARS work with the overall mathematics and assessment programs? Have you been able to train others in their use and relationship to the standards, etc.?

- Regarding the so-called 3-legged stool of curriculum, assessment and professional development, 1) to what extent are these 3 coordinated in your district/project, e.g. is there currently a bridge between them? 2) Has MARS helped to articulate and strengthen that relationship? How?
- What are the plans for the future? Will you continue with this MARS work? Why or why not?

> Professional Development: Balanced Assessment Workshops

- Briefly describe the Balanced Assessment workshops. What occurred? Who participated?
- What were the residual effects:
- -Are these participants leading workshops locally? What is the context in which these session are being offered?
- -How are they using the MARS protocol and Leader Guides?
- -Are they developing new tasks? Are they developing new/revised Leader Guides for those tasks?
- How would you rate the overall **quality** of this service?

 On a scale of 1 –5, with 1 being poor quality and 5 being very high quality.

On a scale of 1-3, with 1 being poor quality and 3 being very high quality Please give specific examples to illustrate your rating.

• How would you rate the overall **usefulness** of this service?

On a scale of 1-5, with 1 being not useful and 5 being very useful.

Please give specific examples to illustrate your rating.

- -How are the MARS tasks and scoring learned from these workshops used most: for <u>professional development purposes</u>? for <u>assessment purposes</u> (e.g. in-classroom or district use)? for <u>more political purposes</u> (to inform the public about alternative forms of assessment etc.)?
- How would you rate the overall **uniqueness** of this service?

On a scale of 1-5, with 1 being not unique and 5 being very unique.

Please give specific examples to illustrate your rating.

- -What makes it new or different?
- How would you rate the overall extent to which this service is a "<u>substantial improvement</u>" over other assessment-related services?

On a scale of 1-5, with 1 being no improvement and 5 being substantially improved. Please give specific examples to illustrate your rating.

-Is the work done by MARS a substantial improvement over the services provided by its critical competitors?

- To what extent has your (or your teacher leaders') work with MARS influenced your/their view of professional development? Has thinking and actual offerings changed or shifted as a result? Can you be specific?
- How do these workshops fit into the overall mathematics and assessment work in your school/district/state?
- Regarding the so-called 3-legged stool of curriculum, assessment and professional development, 1) to what extent are these 3 coordinated in your district/project, e.g. is there currently a bridge between them? 2) Has MARS helped to articulate and strengthen that relationship? How?
- What are the plans for the future? Will you continue with this MARS work? Why or why not?

Reflections/Future Work

• What is your overall impression of the quality of the MARS work? How would you rate it,

On a scale of 1-5, with 1 being poor quality and 5 being very high quality.

• In general, how satisfied are you with the services MARS has provided? How would your rate it,

On a scale of 1-5, with 1 indicating not at all satisfied and a 5 satisfied to a great extent

- Would you say interest and buy in to MARS work is increasing or decreasing over the time you have been working with MARS? Is it spreading farther than the original MARS participants? If so, in what ways? If I were to visit your school/district/state, what evidence would I see of your work with MARS?
- Has thinking about assessment and/or mathematics and/or professional development changed among participants or among people with whom they have worked?
- Does your school/district/state have the <u>capacity</u> to continue work related to mathematics assessment and professional development after the MARS work ends?
- Are you aware of other resources or groups that provide services similar to MARS? If so, how would compare them to MARS?
- What are the plans for the future with MARS and with math assessments generally?
- Would you recommend other schools/districts/states to work with MARS?