

MEASURING SCHOOL PROCESSES

By Victoria L. Bernhardt

Schools are perfectly designed to get the results they are getting now.

If schools want different results, they must measure and then change the processes to create the results they really want.

Schools cannot improve what is not measured.

School processes define what learning organizations, and those who work in them, are doing to help students learn: what they teach, how they teach, and how they assess students. School processes include programs, curriculum, instruction and assessment strategies, interventions, and all other classroom practices that teachers use to help students learn.

To understand the student achievement results districts and schools are getting, administrators and teachers must document and measure the processes that are being implemented. That information, aligned to the results, will help them understand what to improve to get different results. Sharing how they are getting their successes will help staff understand which processes are working. Understanding which processes are not getting desirable results will inform them of what processes should be changed or eliminated. To truly know if a reading program is successful or not, a school district has to know how reading is taught in each classroom in every school.

How can anyone be sure that a particular set of new inputs will produce better outputs if we don't at least study what happens inside?

~ Paul Black and Dylan Wiliam

Measuring Processes

Measuring processes is one of the most important things we can do to improve K-12 education. Processes are the only things that we have extensive control over in education. However, they are some of the hardest things to measure. Measuring the processes used in instruction is a task we all have to

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work on to understand the impact of our processes and to understand how to improve teaching and learning. If the implementation of specific processes is not being measured or monitored, those processes are probably not being fully implemented.

Districts and schools must devote time to the management and measurement of school processes so successful processes can be shared and implemented districtwide, and unsuccessful practices can be redesigned or eliminated.

How Do We Measure Processes?

There are many ways to measure processes. Qualitative and quantitative measures can be applied. Qualifiable school process measures might

**If you are not monitoring and
measuring program implementation,
the program probably does not exist.**

include program/course flow, focus groups, interviews, and/or questionnaire results. Quantifiable school process measurement could include: classroom observations, program enrollments, and student achievement results. We need to think logically about what we need to know about a program, and match these thoughts/questions to the measurement.

The **Measuring Processes Table** (next page) illustrates how logical it can be to measure such things as curriculum, instruction and assessment strategies, staff collaboration, environment, etc. The table describes what we want the processes to look like—which gives us insight into the purpose of each process, and how each process can be measured. *For example, if we are measuring curriculum, we are looking for it to align to content standards and grade level expectations; we would want to find evidence that there is a continuum of learning that is interesting and makes sense for the students, and that it is being implemented in every classroom. We can measure these through curriculum mapping, process flowcharting, classroom/teacher observations, student achievement results, questionnaires, and a tool created to assess the implementation of the vision.*

Attachment A provides an outline for you to use to think through the measurement of your “hard-to-measure” processes.

MEASURING PROCESSES TABLE

| <i>What do we want the process to look like?</i> | | <i>How can it be measured?</i> |
|---|--|--|
| <i>Curriculum</i> | Aligned to the standards and grade level expectations; continuum of learning that makes sense; interesting; implemented in every classroom. | <ul style="list-style-type: none"> ♦ Curriculum mapping ♦ Process flowchart ♦ Classroom/teacher observations ♦ Student achievement results (student data and student work) ♦ Staff, student, parent, and standards questionnaires ♦ Vision assessment tool |
| <i>Instruction</i> | Agreed upon strategies implemented in every classroom, including small and large group instruction, flexible groupings, differentiated instruction, scheduling, designed to meet the needs of whom the school has as students. | <ul style="list-style-type: none"> ♦ Process flowchart ♦ Classroom/teacher observations ♦ Student achievement results (student data and student work) ♦ Staff and student questionnaires ♦ Vision assessment tool |
| <i>Assessments for learning</i> | Formative assessments aligned to the standards, grade level expectations, and high stakes summative assessments. | <ul style="list-style-type: none"> ♦ Process flowchart ♦ Classroom/teacher observations ♦ Student achievement results (student data and student work) ♦ Staff and student questionnaires ♦ Vision assessment tool |
| <i>Staff collaboration</i> | Teachers meet in teaching teams to review student progress (student data and student work), to improve the implementation of the vision, and to adapt processes. | <ul style="list-style-type: none"> ♦ Staff questionnaire ♦ Vision assessment tool ♦ Leadership structure |
| <i>Environment</i> | <p>Students feel like they belong, are challenged, are cared for, etc.</p> <p>Teachers feel supported and that they are working in a collaborative environment; teachers have high expectations for students and believe all can learn.</p> <p>Parents feel welcome at the school, and know what they can do support their child's learning; effective home-school communications.</p> | <ul style="list-style-type: none"> ♦ Student, staff, and parent questionnaires ♦ Demographic data that indicate how students and staff are treated |
| <i>Leadership</i> | Leadership structure that helps everyone implement the vision; supportive of all staff, students, and parents; supports the continuous improvement of the organization and all personnel. | <ul style="list-style-type: none"> ♦ Student and staff questionnaires ♦ Leadership structure that helps everyone implement the vision ♦ Evaluation tools and strategies |

Flowcharting Processes

Flowcharting processes can help schools clarify what is being done now, so that all those involved can understand how they are getting current results, and can determine what needs to change to get different results. Flowcharts, or other mapping tools, allow everyone to see the major steps in a process, in sequence, and then evaluate the differences between the theoretical and actual, or actual and desired, results. The intent is to agree on standard and desired practice, and then improve the current processes.

A flowchart is a visual representation of a process that helps staffs:

- ◆ assess what is really being implemented within a process,
- ◆ understand how they get the results they are getting,
- ◆ determine the cause of a problem or challenge,
- ◆ assist with improving a process, and to
- ◆ serve as a component of training and communication, so all staff can understand and implement the same processes.

Flowcharts can be constructed both informally and formally. An informal method is best for getting started and securing buy-in; the formal method ensures rigor and accuracy.

A well-prepared flowchart map:

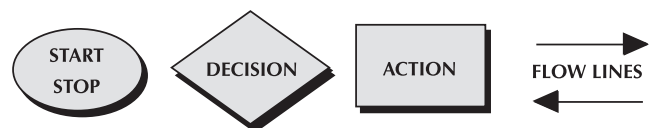
- ◆ Builds common understandings of a whole process. (It is best if staff work together to create the flowchart.)
- ◆ Communicates process-related ideas, information, and data in an effective visual form.
- ◆ Identifies actual or ideal paths, revealing problem areas and potential solutions.
- ◆ Identifies areas for improvement or inefficiencies.

- ◆ Breaks processes into steps using consistent, easily understood symbols.
- ◆ Is inexpensive and quick to produce, and gives staffs the opportunity to experience a shared view when they participate in constructing it.
- ◆ Shows intricate connections and sequences clearly.
- ◆ Aids in communication, problem solving, and decision making.
- ◆ Promotes understanding of a process in a way that written procedures cannot.
- ◆ Enables the standardization of a process.
- ◆ Provides a way to monitor and update processes.

One good process map can replace pages of words.

Flowcharting Tools

Many types of flowcharting tools are available. We like to use *Inspiration* (www.Inspiration.com) to create flowcharts because of its versatility and ease of use. Basic flowcharting tools include the following symbols:

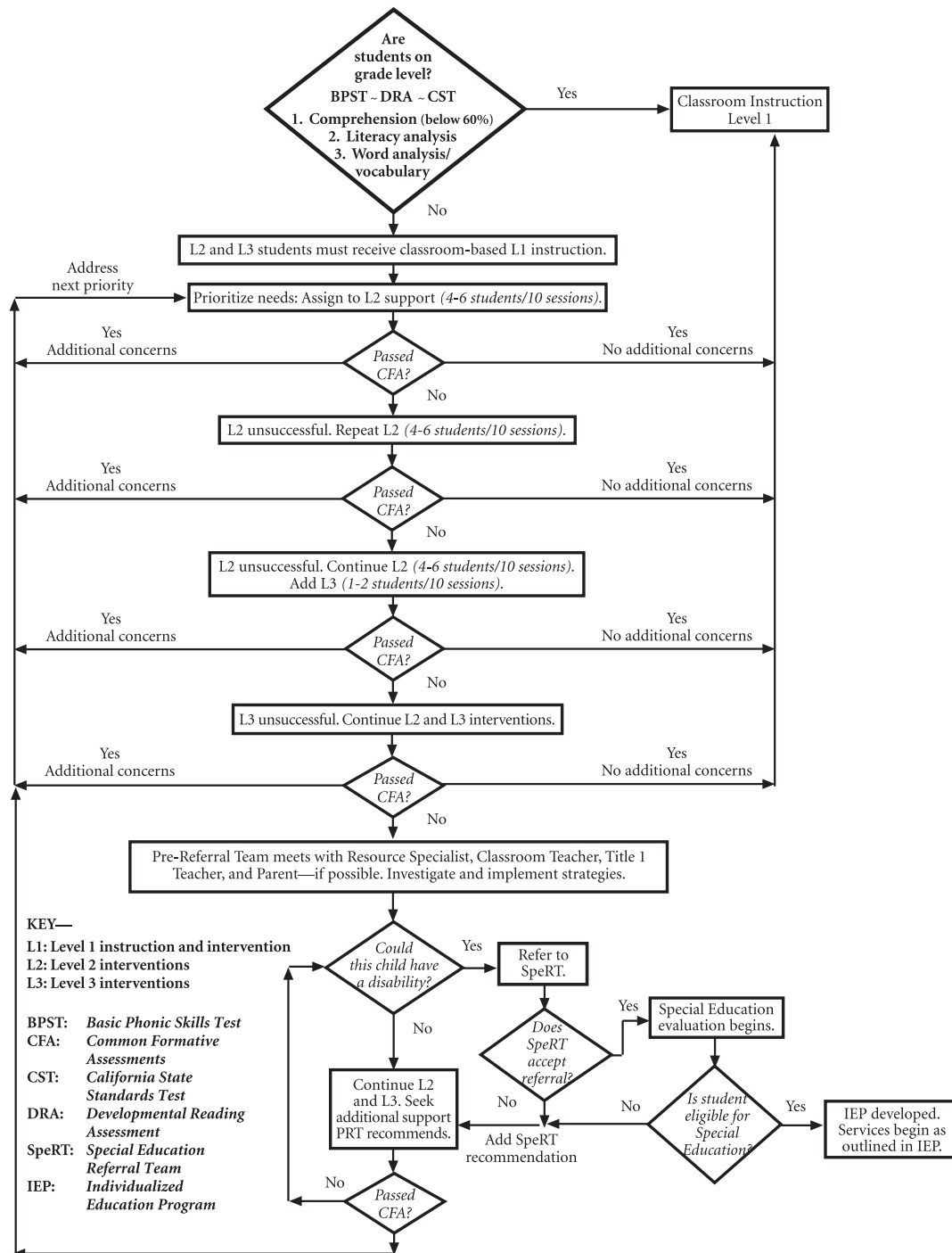


Examples of flowcharts follow.

Example A

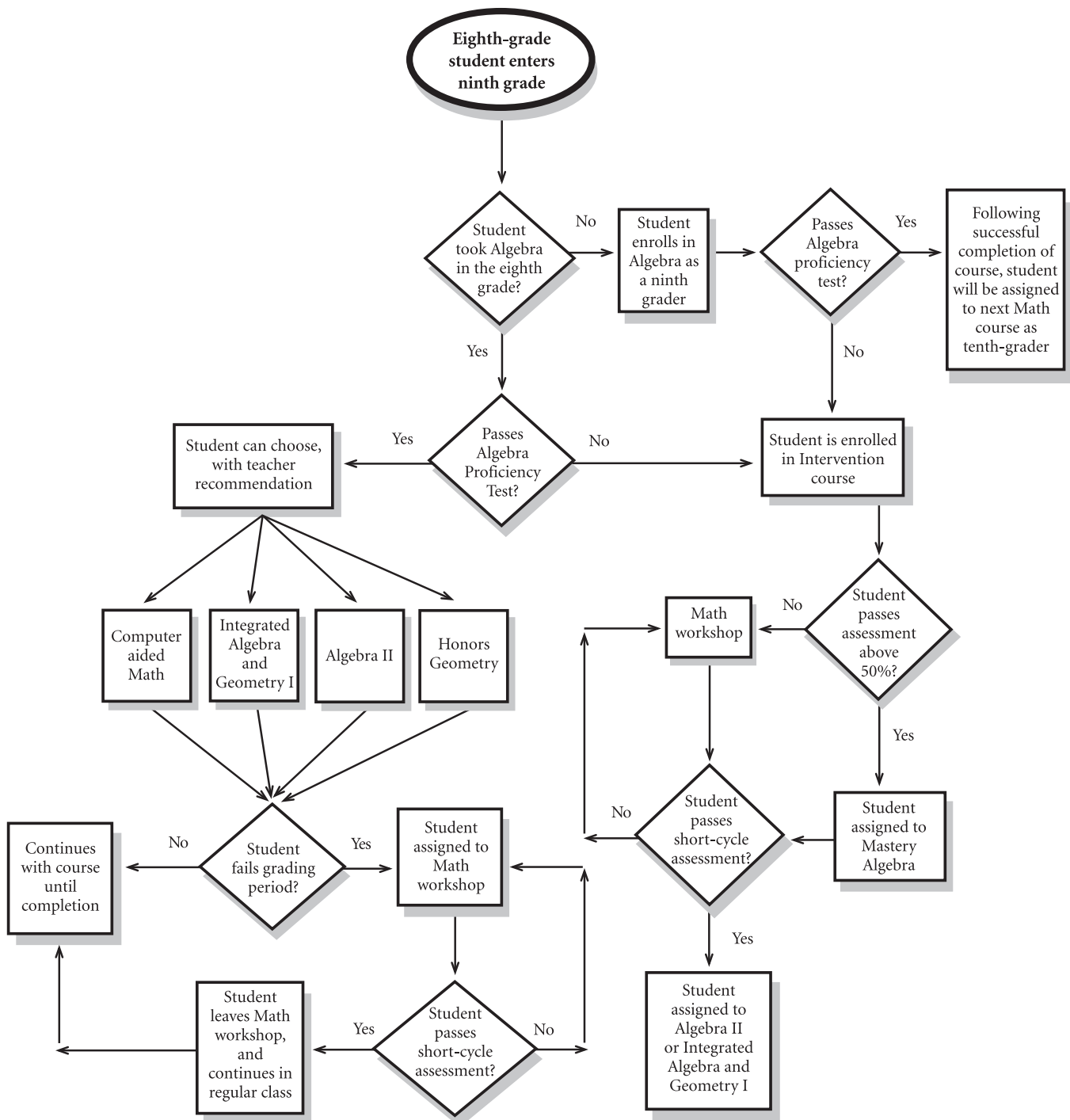
Below is an example of a *Response to Intervention* (RtI) process used by an elementary school for Grade 3 Reading. You can see the various steps that occur in the process and how actions follow decisions. This type of flowchart can be used to determine what processes are currently in place and what needs to change if these processes are not getting the desired results.

EXAMPLE FLOWCHART: GRADE 3 READING RESPONSE TO INTERVENTION (RtI)



Example B

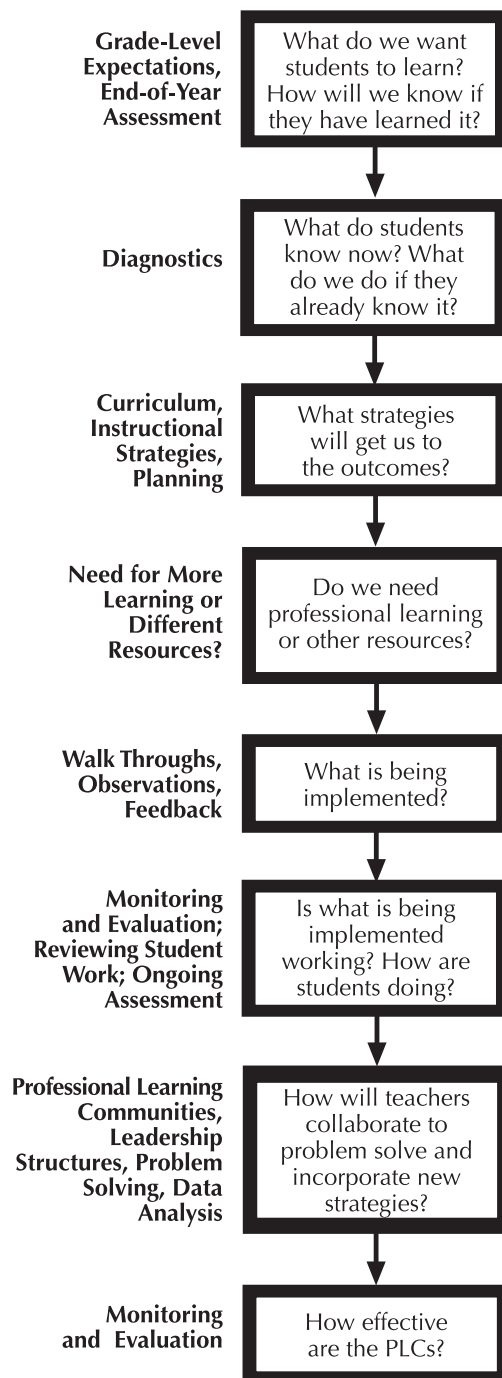
Below is an example that shows how a particular high school places its new ninth-grade students in Math courses. The flowchart also shows what the school does when the students are not learning the Math concepts.

EXAMPLE PROCESS FLOWCHART: HIGH SCHOOL MATHEMATICS PLACEMENT

Example C

Example C is the first attempt of a school district's curriculum department to define the major concepts related to using data in professional learning communities that they want all schools in their district to implement. Next steps would be to elaborate on each action box.

THE PROCESS OF USING DATA IN PROFESSIONAL LEARNING COMMUNITIES



In this PLC structure, the learning community teams—

1. Review what they want students to know and be able to do, and how they will know when the students have learned it.
2. Assess what students know now.
3. Determine the best strategies to help students reach those end-of-course/end-of-year expectations.
4. Given #2 and #3 above, identify professional learning and other resources that will help teachers ensure all students' learning.
5. Observe each other and provide feedback, knowing that they can only improve with practice and feedback.
6. Review teaching observation feedback with the student assessment results.
7. Collaborate to determine what needs to change to get different results through problem-solving strategies and deeper analysis.
8. Finally, evaluate the PLC structure to ensure that its intention of improving teaching and learning is achieved.

Flowcharts are useful tools for exposing problems and incomplete thinking in processes. Improvement cannot occur until problems are identified and solutions are proposed. This requires gathering data on student achievement results and on the processes used to produce these results. In addition, data on demographics and perceptions can help us acquire a true picture of which processes are working with which students. We cannot just assume that we know which processes work best; we must analyze the instructional strategies actually being implemented and realize which ones are getting the desired results.

Measuring Program Implementation

To measure and improve programs and processes, we should start by making a list of the programs and processes that are being implemented right now, using the **Measuring Programs and Processes Template** (Attachment B). Some of the programs and processes you will want to measure might include—

Programs

A+
 Accelerated Reading/Math
 After School
 Alternative
 At-Risk
 Before School
 Bilingual
 Credit Programs
 Dropout Prevention
 English as a Second Language
 Gifted
 JROTC
 Mentoring for Freshmen
 Parents as Teachers
 Preschool
 Reading First
 Reading Recovery
 Response to Intervention (RtI)

School to Work
 Special Education
 Supervised Business Experience
 START
 Title Programs
 Tutoring
 Vocational

Instruction/Curriculum

Character Ed
 Class Within Class
 Cooperative Learning
 Differentiated Instruction
 Hands-on Learning
 Professional Learning Communities
 Project Construct
 School Within a School
 Smaller Learning Communities
 Technology Integration

Some of the questions you might want to answer, which are included in the **Measuring Programs and Processes Template** (Attachment B), are:

- ◆ What is the intent (desired results/objectives)?
- ◆ How will you know the intent (desired results/objectives) is being met?
- ◆ Who is the program intended to serve?
- ◆ Who is being served? Who is not being served?
- ◆ What would it look like if the program were fully implemented?
- ◆ To what degree is the program being implemented?
- ◆ How is implementation being measured?
- ◆ How should implementation be measured?
- ◆ What are the results?

Summary

School Processes are a major category of data in comprehensive data analysis. School processes are one of the most important puzzle pieces for determining what is working and what is not working. We want staffs to work together to create a continuum of learning that makes sense for all students and leads to student learning increases. To get different results, we need to change the processes that create the results. To change the processes, we have to agree on what is being implemented and the impact of these processes. Then, together, staff need to determine what they need to implement to achieve desired outcomes, and how they are going to get there.

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ATTACHMENT A: PROCESS MEASUREMENT PLANNING TEMPLATE

| <i>What process do you want to measure?</i> | <i>What will it look like when the process is implemented?</i> | <i>How can this process be measured?</i> |
|---|--|--|
| | | |

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ATTACHMENT B: MEASURING PROGRAMS AND PROCESSES TEMPLATE

PROGRAM/PROCESS:

| PURPOSE | | PARTICIPANTS | | IMPLEMENTATION | | | RESULTS |
|--|--|---|---|---|--|--|-----------------------|
| What is the purpose of the program or process? | How will you know the purpose is being met? (What are the outcomes?) | Who is the program/process intended to serve? | Who is being served? Who is not being served? | What will it look like when the program/process is fully implemented? | How is implementation being measured? (Should it be measured differently?) | To what degree is the program being implemented? | What are the results? |
| | | | | | | | |
| NEXT STEPS: | | | | | | | |

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