



FOCUS ON MY SYSTEM/DISTRICT GUIDE

Using System/District-Level Progress and Achievement Data to Establish Improvement Priorities

A Template for System/District Leadership Teams

Purpose

The primary purpose of this completing this added results. In particular, this guide will help you recognize and leverage your strengths and identify and address your challenges.

A second important purpose of this guide is to provide an experience that mirrors the experience your building- and teacher-level teams will have as they work through similar processes at their respective organizational levels.

As you complete this guide, you will:

1. Use achievement and value-added information to assess and prioritize the strengths and challenges associated with your current educational program;
2. Uncover the root causes of your most significant strengths and your highest priority challenges; and
3. Discuss strategies to leverage your area(s) of strength and address your area(s) of challenge.

To provide actionable information for the purposes of system improvement, you will spend most of your time with two system-level value-added reports: 1) the System Value-Added Report, and 2) the System Diagnostic Report.

Visit the Tennessee Student Progress Portal at www.BattelleforKids.org/Tennessee to learn more and access online learning and resources available at no cost as part of First to the Top.

System Value-Added Reports

The System Value-Added Report is the primary system/district-level value-added report. This report summarizes the aggregate-level results for your system by subject-area.

To access your System Value-Added Report:

1. Log in at <https://tvaas.sas.com/evaas>.
2. Enter your username (example: firstname.lastname).
3. Enter your password, and click the "Go" button. If you can't remember your password, click on "Forgot Password," and it will be sent to your district e-mail address.
4. You should be looking at your System Value-Added Report for math.

Following is an example of a System Value-Added Report for math.

2010 School Value-Added Report						
ABC Middle School in ABC System						
TCAP Math						
Estimated School Mean NCE Gain						
Grade:	5	6	7	8	Mean NCE Gain over Grades Relative to	
Growth Standard:	0.0	0.0	0.0	0.0	Growth Standard	State
State 3-Yr-Avg:	-1.5	-0.6	-0.5	-1.5		
2008 Mean NCE Gain:	-3.2 R*	5.5 G*	-0.2 Y	3.5 G*	1.4	2.4
Std Error:	1.0	1.0	0.9	1.0	0.5	0.5
2009 Mean NCE Gain:	0.7 G	-0.4 Y	-10.0 R*	3.3 G*	-1.6	-0.6
Std Error:	1.0	1.0	0.9	0.9	0.5	0.5
2010 Mean NCE Gain:	-5.7 R*	2.5 G*	-8.3 R*	-1.8 R*	-3.3	-2.3
Std Error:	1.0	1.0	0.9	0.9	0.5	0.5
3-Yr-Avg NCE Gain:	-2.7 R*	2.5 G*	-6.1 R*	1.7 G*	-1.2	-0.2
Std Error:	0.6	0.6	0.5	0.5	0.2	0.2
Estimated School Mean NCE Scores						
Grade:	5	6	7	8		
State Base Year (2009):	50.0	50.0	50.0	50.0		
State 3-Yr-Avg:	47.5	46.8	46.5	45.9		
2007 Mean:	56.2	54.2	54.5	59.7		
2008 Mean:	56.9	61.8	53.8	57.8		
2009 Mean:	52.5	56.4	50.7	56.9		
2010 Mean:	49.5	55.3	47.8	48.7		

	G* - Estimated mean NCE gain is above the growth standard by at least 1 standard error.
	G - Estimated mean NCE gain is equal to or greater than growth standard but by less than 1 standard error.
	Y - Estimated mean NCE gain is below the growth standard by 1 standard error or less.
	R - Estimated mean NCE gain is more than 1 standard error below the growth standard but by 2 standard errors or less.
	R* - Estimated mean NCE gain is below the growth standard by more than 2 standard errors.

The report displayed above provides information on math achievement for grades 3–8 (estimated mean NCE scores) and math gains for grades 4–8 (mean NCE Gains). Both value-added gains and mean achievement levels are calculated in terms of normal curve equivalents (NCEs).

Interpreting ABC Middle School’s System Value-Added Report for Math

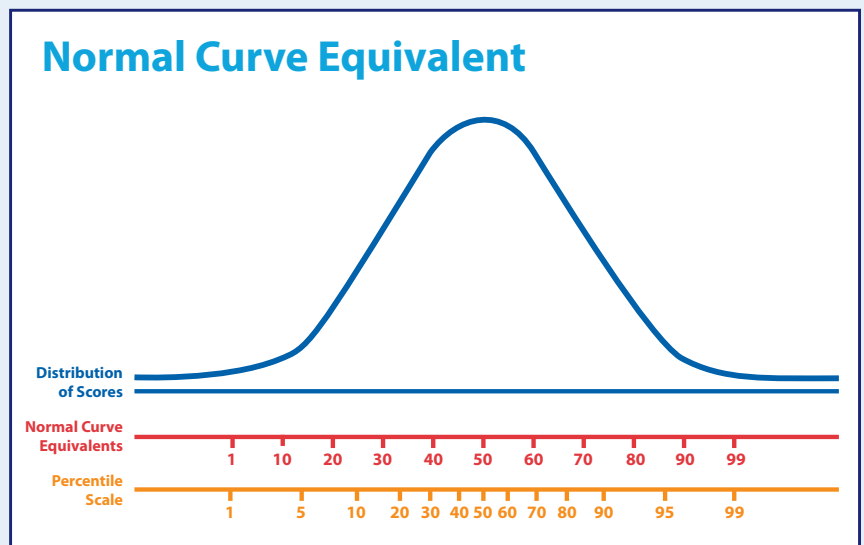
Use ABC Middle School’s System Value-Added Report on the left to answer the following questions.

1. Which grade level has the highest mean achievement level for 2010? The lowest?
2. Which grade level produced the most growth in math in 2010? The least?
3. In terms of student gains in math, how well did this system/district perform as a whole in 2010?

What are NCEs?

Displayed on the right is a “normal” or “bell-shaped” curve. Below the curve, you see a percentile scale and a normal curve equivalent scale (NCE). The primary difference between these two metrics is that the NCE scale is an equal interval scale, and the percentile scale is not. This equal interval property means that an NCE scale can remain consistent from one year to the next while percentile scales vary with different distributions of student performance results.

This year-to-year consistency is important; it allows statisticians to more efficiently conduct multi-year analyses like the value-added analysis produced by SAS® TVAAS®.

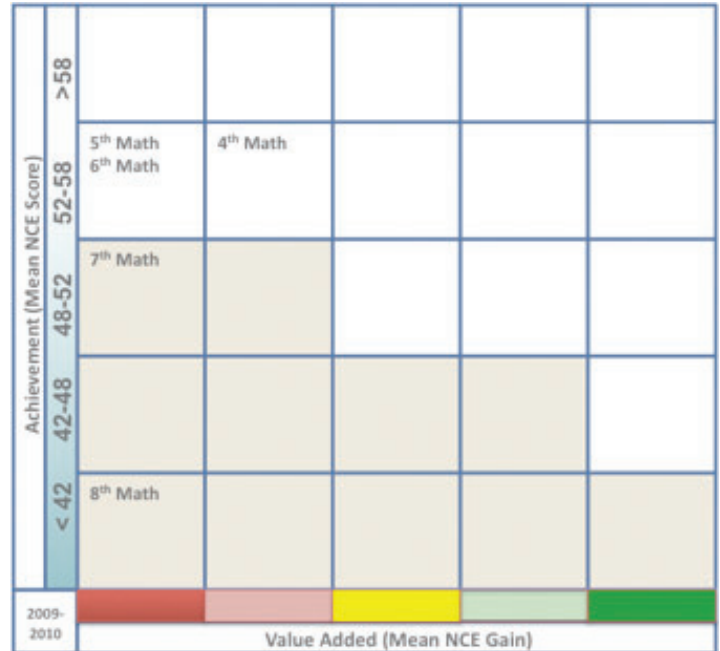


Focus on My System/District Matrix

The *Focus on My System/District* matrix is a simple and useful tool to help you identify areas of relative strength and areas of relative challenge in your system's aggregate achievement and value-added results. Once you have completed this matrix, you will have a better understanding of the specific content and grade level strengths and challenges that are contributing to your system's results. Use the following instructions to complete a *Focus on My System/District* matrix.

Plot Your Grade-Level and Subject-Area Results

- Using the System Value-Added Report on page 2, locate the 2010 mean NCE score for 4th grade math and the color associated with the 2010 mean NCE gain for 4th grade math. Enter 4th grade math in the square where the mean NCE score and the mean NCE gain color intersect.
- Continue with this process until you have entered math results for each grade level.
- When your math results are complete, then enter the results for the other subject-areas.
- On the right, the ABC System/District math data are plotted on the *Focus on My System/District* matrix. Does the placement of these grade-level/subject-area data make sense given the System Value-Added Report displayed on the previous page?



All of ABC System/District's data are plotted on the *Focus on My System/District* matrix on the right.



Interpreting the ABC System/District's *Focus on My System/District Matrix*

Use the *Focus on My District/System* matrix on the bottom right answer the following questions:

1. Where do you see the highest levels of progress and achievement (look to the top-right part of the matrix)? The practices in these areas are currently the ABC System/District's greatest strengths.
2. Where do you see the lowest levels of progress and achievement (look to the bottom-left part of the matrix)? These areas are currently the ABC System/District's greatest challenges. Leaders should examine their Value-Added Summary Report to identify if some schools that have solved this problem.
3. Where in the system do you see high levels of progress, but low levels of achievement (look to the bottom-right part of the matrix)? Educators in these areas have discovered ways to improve their effectiveness. Their practices provide a working model for effective improvement.
4. Where in the system do you see high levels of achievement, but low levels of progress (look to the top-left part of the matrix)? The practice of these educators has become frozen. They require stretch goals.
5. As you interpret these results, what are the ABC System/District's greatest strengths?
6. As you interpret these results, what are the ABC System/District's most critical challenges?

Now, use your System Value-Added Reports to complete your *Focus on My System/District* matrix.

Achievement (Mean NCE Score)	> 58					
	52-58					
	48-52					
	42-48					
	< 42					
2009-2010						Value Added (Mean NCE Gain)

Making Sense of Your *Focus on My System/District Matrix*

Use your *Focus on My System/District* matrix on the left answer the following questions:

1. Where are your highest levels of progress and achievement (see the top-right part of the matrix)? The practices in these areas are currently your system's greatest strengths.
2. Where are your lowest levels of progress and achievement (see the bottom-left part of the matrix)? These areas are currently your system/district's greatest challenges. Examine your Value-Added Summary Report to see if there are educators in particular schools that have solved this problem.
3. Where in your system do you see high levels of progress, but low levels of achievement (see the bottom-right part of the matrix)? Educators in these areas have discovered ways to improve their effectiveness. Their practices provide a working model for how others might improve.
4. Where in the system do you see high levels of achievement, but low levels of progress (see the top-left part of the matrix)? The practice of these educators has become frozen. They require stretch goals.
5. As you interpret all of your System Value-Added Reports, what are your system's greatest aggregate-level strengths?
6. As you interpret all of your System Value-Added Reports, what are your system's most critical aggregate-level challenges?

Examining Your System/District Diagnostic Reports

To access your System Diagnostic Reports, you must enter the password-protected side of the Tennessee's SAS® TVAAS® site. Instructions are provided below.

1. Log in at <https://tvaas.sas.com/evaas>.
2. Enter your username (example: firstname.lastname).
3. Enter your password, and click the "Go" button. If you can't remember your password, click on "Forgot Password," and it will be sent to your district e-mail address.
4. You should be looking at your System Value-Added Report for math.
5. Go to the "Reports" tab and under the "System Reflection" Header, select "Diagnostic."

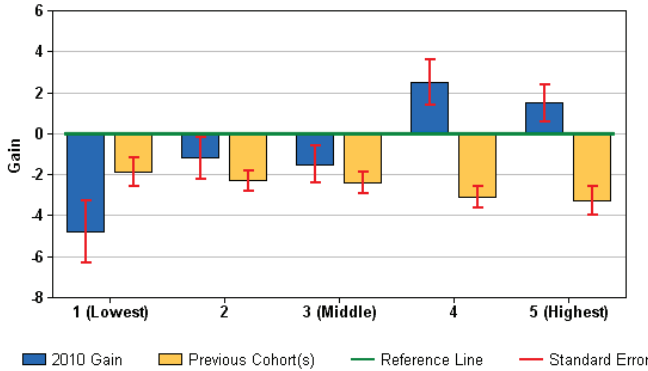
Following are the **Math Diagnostic Reports** for ABC System/District

2010 System Diagnostic Report

ABC System

4th Grade TCAP Math

[Select Subgroups](#)

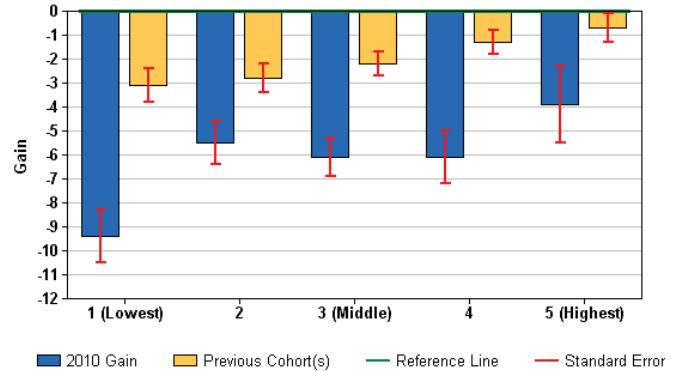


2010 System Diagnostic Report

ABC System

5th Grade TCAP Math

[Select Subgroups](#)

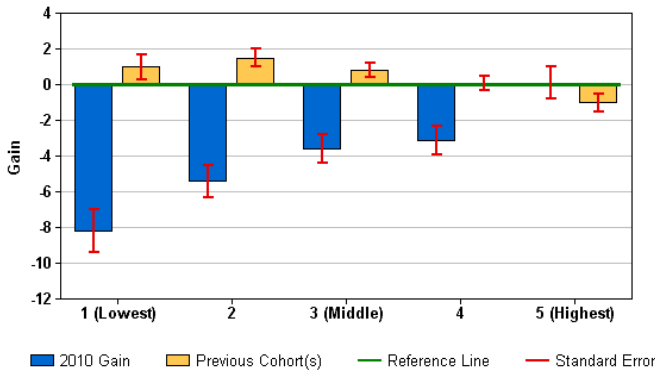


2010 System Diagnostic Report

ABC System

6th Grade TCAP Math

[Select Subgroups](#)

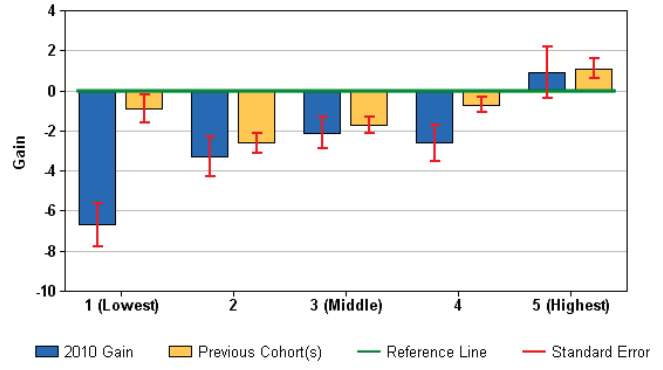


2010 System Diagnostic Report

ABC System

7th Grade TCAP Math

[Select Subgroups](#)

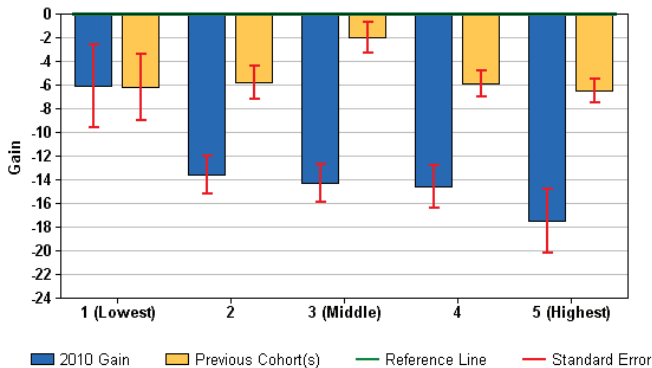


2010 System Diagnostic Report

ABC System

8th Grade TCAP Math

[Select Subgroups](#)



Use the **System Diagnostic Reports** above to look for subject-area patterns:

1. Subject-Area Patterns—Do you see any patterns as you examine the math diagnostics across grade levels?

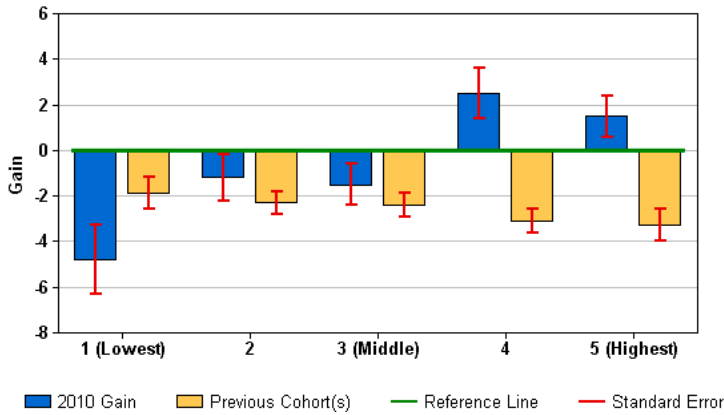
Following are the **System Diagnostic Reports** for 4th grade in ABC System/District

2010 System Diagnostic Report

ABC System

4th Grade TCAP Math

[Select Subgroups](#)

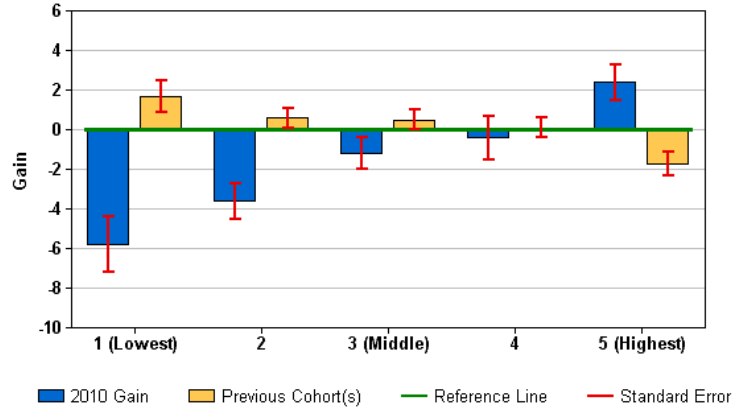


2010 System Diagnostic Report

ABC System

4th Grade TCAP Reading/Language

[Select Subgroups](#)

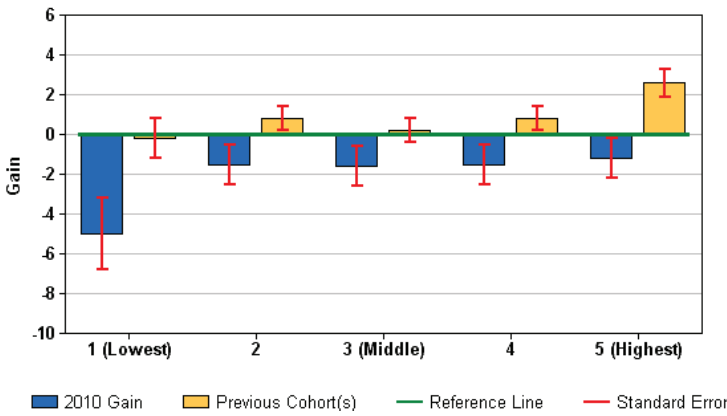


2010 System Diagnostic Report

ABC System

4th Grade TCAP Science

[Select Subgroups](#)

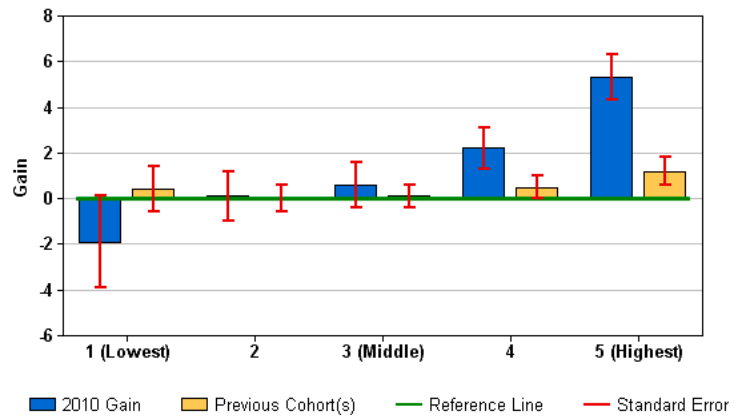


2010 System Diagnostic Report

ABC System

4th Grade TCAP Social Studies

[Select Subgroups](#)



Use the **System Diagnostic Reports** above to answer the following question:

2. Grade-Level Patterns—Do you see any patterns within grade-level diagnostic reports?
 - a. 4th grade patterns?

Now, use your School Diagnostic Reports to uncover patterns in your results.

1. Subject Area Patterns—Group the System Diagnostic Reports associated with each subject area. Do you see any patterns as you look across grade levels?
 - a. Math diagnostic patterns?
 - b. Reading/Language Arts patterns?
 - c. Science patterns?
 - d. Social Studies patterns?
2. Grade Level Patterns—Group the System Diagnostic Reports associated with each grade-level. Do you see any patterns as you look across subject areas?
 - a. 4th grade patterns?
 - b. 5th grade patterns?
 - c. 6th grade patterns?
 - d. 7th grade patterns?
 - e. 8th grade patterns?
3. Do you see any patterns as you review all of your **System Diagnostic Reports**?
4. What are your system/district's greatest diagnostic strengths?
5. What are your system/district's most critical diagnostic challenges? Examine the Diagnostic Summary Reports in these areas to determine if some schools have solved this problem.

Prioritizing Your Strengths and Challenges

Because this guide is aimed at improving student results, it is important to prioritize the strengths and challenges that can be productively addressed at the system-level.

Prioritizing Strengths

To prioritize, rank order your strengths (from Number 5 on page 7 and Number 4 on page 11) based on:

- The degree to which patterns are reflected across large segments of the system/district.
- The magnitude of a particular strength relative to other apparent strengths.

What are your top three system/district-level strengths?

- 1.
- 2.
- 3.

Prioritizing Challenges

To prioritize, rank order your challenges (from Number 6 on page 7 and Number 5 on page 11) based on:

- The degree to which patterns are reflected across large segments of the system/district.
- The magnitude of a particular challenge relative to other apparent challenges.

What are your top three system/district-level challenges?

- 1.
- 2.
- 3.

Root Cause Analysis

In this segment of the guide, you will be uncovering factors, called root causes, that tend to produce your system/district's particular strengths and challenges. By definition, these are factors over which you have considerable influence. The primary reason for uncovering root causes is that they provide a significant lever for improvement. If something is working, then you need to know why so that you can get more of it. If something is not working, then you need to know why so that you can fix it.

Next, you will experience a process for uncovering root causes associated with your highest-priority area(s) of strength and of challenge.

Begin by examining your identified area of strength. This is not an arbitrary choice. Most educators have a better grasp of what they do to create positive outcomes than what they do that contributes to negative outcomes. By starting with an area of strength, you will be practicing a process that will allow you to obtain traction in an area of challenge.

Second, and perhaps more important, educators pay too little attention to things that go well. The "root causes" of your successes can and should be leveraged to produce higher levels of success in other areas.

Begin your strength-based analysis with a particular kind of cause/effect diagram called a Fishbone. (The fishbone diagrams are attached at the end of this document.) This tool allows you to explore the factors that may be contributing to a particular outcome. In this strength-based analysis, the "effect" you are interested in is the area of strength you identified on page 12.

To the left of the "fish head" are large "bones" that represent four categories of "causation" over which you have considerable influence.

These areas are:

1. Curriculum
2. Quality of Instruction
3. Leadership
4. Structures

Attached to these "large bones" are more specific factors that could be contributing to the identified area of strength. The empty lines on the diagram are places to add additional causal factors that emerge from your conversation.

What is an educational root cause?

For our purposes, building-level root causes include: Curricular factors, quality of instruction factors, leadership factors and/or structural factors that contribute to particular academic outcomes.

An Overview of Your Strength-Based Analysis

In the analysis that follows, you will:

Step 1:

Write down your area of strength in the “head” of the fishbone.

Example:

After reviewing its data, a system/district-level team decided that its greatest aggregate-level strength was in consistently producing high levels of growth with the lowest-achieving students in the system (Quintile 1 students). They wrote in the head of their fishbone: *High levels of growth with low-achieving students.*

Step 2:

Begin by having each person on the system/district leadership team independently assess the Curriculum fishbone factors. Highlight those factors that have a clear causal connection to the team’s identified area of strength. **Make sure that you select only those factors that account specifically for the identified area of strength.**

If an important curricular causal factor does not appear on the list, then add it in one of the blank spaces in the Curriculum category. **Make sure that these additional factors are ones over which your school system/district exercises a large measure of control.** After each person has highlighted the curricular factors that are causally related to the area of strength, discuss the factors each person selected.

Come to consensus on the Curriculum factors that have a direct causal relation to the area of strength that was selected. Once your team has reached consensus, follow the same process for the Quality of Instruction factors. Continue this process until you have moved through all four Fishbone categories.

Example:

As the system/district-level team discussed the set of **Curriculum** factors, they decided to exclude all of the **Curriculum** Factors. All of those factors would have impacted the growth of all students and not just the low-achieving students.

When they discussed the **Quality of Instruction** factors, they decided to highlight three factors: 1) *Instruction is differentiated to meet student needs;* 2) *Staff intentionally builds deep relationships with students;* and 3) *Formative instructional practices used by all.* The team argued that each of these factors might differentially affect their low-achieving students.

When the team examined the **Leadership** factors, they decided to highlight two factors: 4) *Clear and specific data based improvement agenda;* and 5) *Leaders initiate and support instructional improvement.* Two years ago, the system/district was doing very poorly with low-achieving students. Leaders made a strong effort to emphasize this problem and support staff in making improvements.

When the team examined the **Structure** factors, they decided to highlight one factor: 6) *Professional development is differentiated and linked to improvement goals.*

Step 3:

As a team, review all factors that were selected and remove those that are less significant than others. You should end up with a list of 3–5 factors across all the categories that have a clear and strong causal relation to the area of strength that was identified.

Example:

As the team went back through the six factors it had highlighted, it decided to drop two of those factors: 1) *Instruction is differentiated to meet student needs*; and 2) *Leaders initiate and support instructional improvement*. System/district leaders decided that if instruction were truly differentiated, then it would result in improvement across the board instead of just with one achievement subgroup. System/district leaders also decided to drop factor five. Leaders had truly initiated some work around instructional improvement, but the continuing support was largely missing. This improvement emerged largely from the persistent work of the system/district's teachers.

Step 4:

Record the factors that have strong causal links to the identified area of strength.

Example:

The system/district's leadership team recorded four root causes associated with the impressive gains of most of the system/district's low-achieving students: 1) *Staff intentionally builds deep relationships with students*; and 2) *Formative instructional practices used by all*; 3) *Clear and specific data-based improvement agenda*; 4) *Professional development is differentiated and linked to improvement goals*. The team could easily support the causal connections between this area of strength and these particular root causes.

Root Cause Analysis of an Area of Strength

My most significant area of strength is:

The root causes associated with that area of strength are:

An Overview of Your Root Cause Analysis of an Area of Challenge

Now, you will probe for the root causes of your area of challenge:

Your team has completed the root cause analysis of an area of strength. Now, you will follow a similar pattern to explore the factors that may be producing an area of challenge. This analysis may be a little more difficult because your team may be more puzzled about the factors that are responsible for producing an area of challenge.

Begin your challenge-based analysis with the System/District-Level Challenge Fishbone. (The fishbone diagrams are attached at the end of this document.) This tool allows you to explore the factors that may be contributing to a particular negative outcome. In this challenge-based analysis, the “effect” you are interested in is the area of challenge you identified on page 12.

To the left of the “fish head” are large “bones” that represent four categories of “causation” over which you have considerable influence.

These areas are:

1. Curriculum
2. Quality of Instruction
3. Leadership
4. Structures

Attached to these “large bones” are more specific factors that could be contributing to the identified area of challenge. The empty lines on the diagram are places to add additional causal factors that emerge from your conversation.

In the analysis that follows, you will:

Step 1:

Write down your area of challenge in the “head” of the fishbone.

Example:

After looking at all its data, a system/district-level leadership team decided that its greatest aggregate-level challenge was poor growth and achievement in middle school math. They wrote in the head of their fishbone: *Poor growth and achievement in middle school math.*

Step 2:

Begin by having each person on the system/district leadership team independently assess the Curriculum fishbone factors. Highlight those that have a clear causal connection to the team's identified area of challenge.

If an important curricular causal factor does not appear on the list, then add it in one of the blank spaces in the Curriculum category. **Make sure that these additional factors are ones over which your school system exercises a large measure of influence.**

After each person has highlighted the curricular factors that are causally related to the area of challenge, have a discussion of the factors each person selected. Come to consensus on the Curriculum factors that have a direct causal relationship to the area of challenge that was selected. Once your team has reached consensus, follow the same process for the Quality of Instruction factors. Continue this process until you have moved through all four categories of the Fishbone.

Example:

As the system/district-level leadership team discussed the set of **Curriculum** factors, they decided to highlight two factors. 1) *Power Standards not used to guide instruction*; and 2) *Curriculum has redundancies or gaps*. The math department has been talking about these issues for the last couple of years, but not much been done to address them.

When they discussed the **Quality of Instruction** factors, they decided to highlight two factors as well: 3) *Staff does not build deep relations with students*; and 4) *Low expectations for some students*. The team argued that each of these factors was apparent in their classroom visitations, and low-achieving students, in particular, were really struggling in math.

When the team examined the **Leadership** factors, they decided to highlight two factors: 5) *System/district-level meetings confuse activity with results*; and 6) *Staff does not own responsibility for student success*. As a system/district, we have been talking about this problem for several years, but no substantive changes have been made to impact results.

When the team examined the **Structure** factors, they decided not to highlight any of those factors. None of the problems seemed completely relevant to this situation.

Step 3:

As a team, review the factors that were selected and remove factors that are less significant than others. You should end up with a list of 3–5 factors across all the categories that have a clear and strong causal relation to the area of challenge that was identified.

Example:

As the team went back through the six factors it had highlighted, it decided to drop one of them: 1) *Curriculum has redundancies or gaps*. System/district leaders decided that while there might be some minor gaps, the bigger problem was that nothing in the curriculum seemed more important than anything else. They needed to set some curricular priorities in the middle school math curriculum to ensure that everyone was getting at the most critical mathematical understandings.

Step 4:

Record the factors that have strong causal links to the identified area of challenge.

Example:

The system/district leadership team recorded five root causes associated with the general poor performance of the middle school math program: 1) *Power standards not used to guide instruction*; 2) *Staff does not build deep relations with students*; 3) *Low expectations for some students*; 4) *System/district-level meetings confuse activity with results*; and 5) *Staff does not own responsibility for student success*. The team could easily support the causal connections between the state of the math program and these particular root causes.

Root Cause Analysis of an Area of Challenge

My most significant area of challenge is:

The root causes associated with that area of challenge are:

Addressing Your Core Issues

You can begin to address your core challenges in at least five ways.

1. Use a strategy aligned with your core strength.
 - a. What are the root causes that enabled the emergence of your core strength?
 - b. Are there ways in which these areas of strength could be enlisted to address your core challenge?

How might you use the root causes of your core strength to address your greatest challenge?

2. Use the Value-Added Summary to find schools within the system/district that are producing positive results in your identified area of challenge.
 - a. Identify schools that are breaking the identified pattern.
 - b. Communicate with the principal or other leaders from that school.
 - c. Determine the practices they employ to produce larger-than-typical gains.

Which school leaders should you contact to begin to address your greatest challenge?

Addressing Your Core Issues, continued.

3. Address your area of challenge through its root causes.
 - a. Begin to address and improve all or most of the root causes associated with your area of challenge.
 - b. Create specific goals and action plans for each of the root causes.

How will you address the root causes of your greatest challenge?

4. Use the Student Search to identify the students who have the greatest needs.
 - a. Perform a Student Search in your area of greatest challenge.
 - b. Reorganize the list around the Projection Probabilities.
 - c. Provide more time on task in areas where students are especially weak.

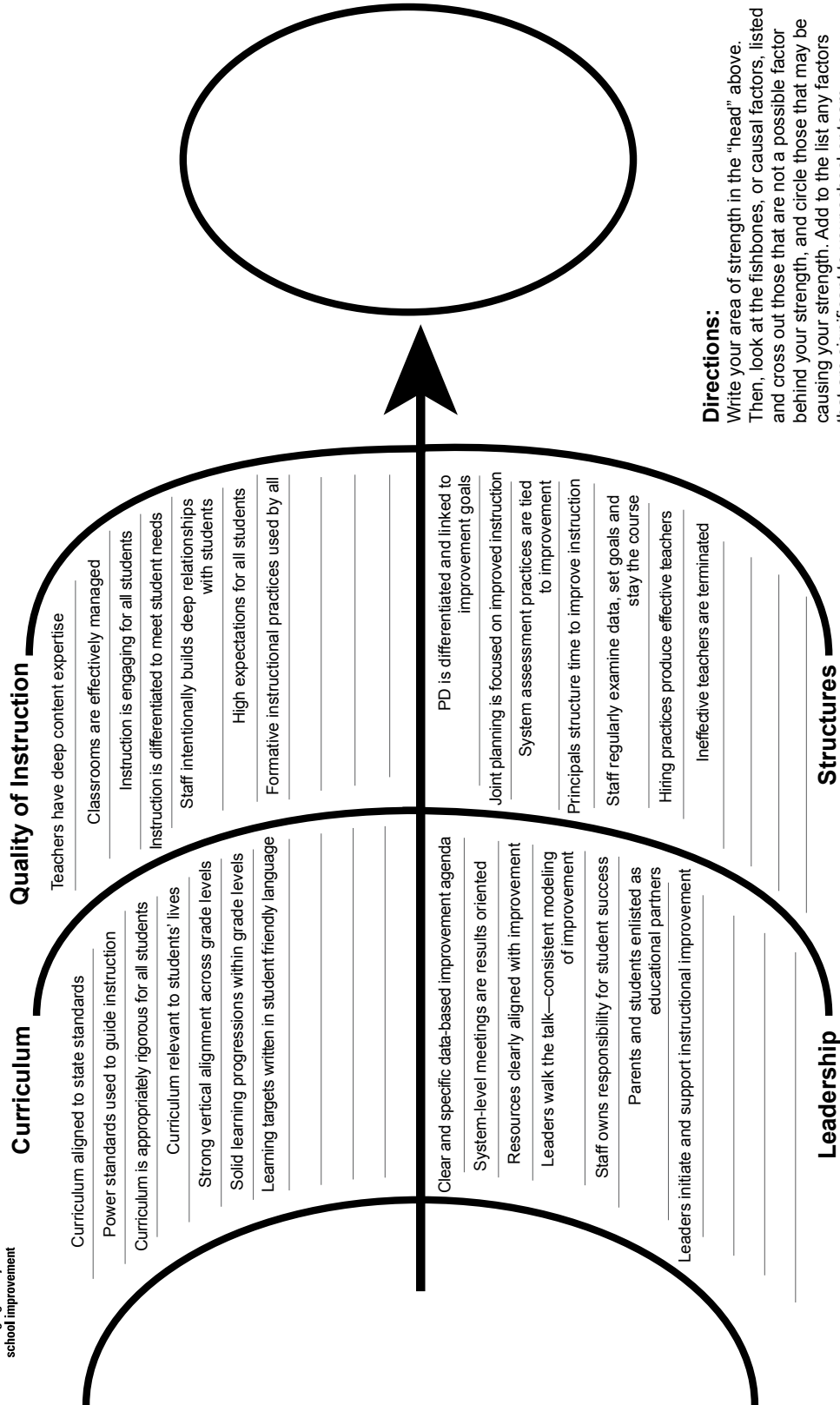
How will you provide additional support to students in their greatest areas of need?

5. Devise a creative solution for your area of greatest challenge.

System/District-Level Strength Fishbone



System-Level Strength Fishbone



System/District-Level Challenge Fishbone



System-Level Challenge Fishbone

Curriculum

Curriculum misaligned to state standards
 Power standards not used to guide instruction
 Insufficient access to rigor for all students
 Curriculum has redundancies and/or gaps
 Poor vertical alignment across grade levels
 Poor learning progressions within grade levels
 Learning targets not written in student-friendly language

Quality of Instruction

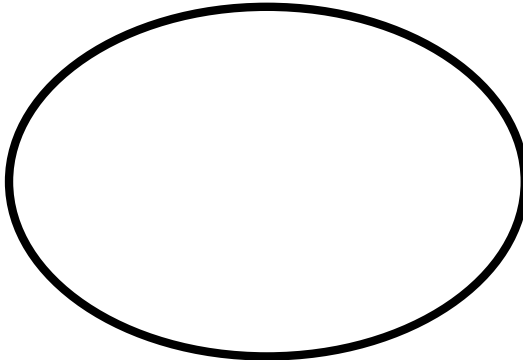
Teachers work outside their content area
 Ineffective classroom management
 Instruction is not engaging for all students
 Instruction is not effectively differentiated
 Staff does not build deep relationships with students
 Low expectations for some students
 Little use of formative instructional practices

Improvement agenda is unclear or unfocused
 System-level meetings confuse activity with results
 Resources poorly aligned with improvement goals
 System or building leaders don't consistently walk the talk
 Staff does not own responsibility for student success
 Parents and students insufficiently enlisted as partners
 Principals unclear on how to use data to improve instruction

Leadership



Professional development poorly linked to improvement goals
 Joint planning time not focused on improved instruction
 System assessment practices not formally linked to improvement
 Principals structure insufficient time to improve instruction
 Ineffective processes to examine data, set goals and stay the course
 Hiring practices do not yield desired results
 Poor follow through on termination processes

Structures



Directions:
 Write your area of challenge in the "head" above. Then, look at the fishbones, or causal factors, listed and cross out those that are not a possible factor behind your strength, and circle those that may be causing your strength. Add to the list any factors that are significant to your school or team.

Focus on My System/District Matrix

Achievement Quintile 	Highest Q5					
	Q4					
	Q3					
	Q2					
	Q1					
2009-2010	Q1	Q2	Q3	Q4	Q5	Value Added Quintile  Highest

Battelle *for Kids*

**Bringing clarity to
school improvement**

Battelle for Kids is partnering with the Tennessee Department of Education to expand the use of value-added analysis and formative instructional practices as well as other educational-improvement strategies to increase student progress and achievement in K–12 public schools statewide as part of First to the Top.

Visit the Tennessee Student Progress Portal
at www.BattelleforKids.org/Tennessee
to learn more and access online learning and resources
available at no cost as part of First to the Top.