Student Performance Diagnostic

“Effective analysis of data is a treasure hunt in which leaders and teachers find those professional practices—frequently unrecognized and buried amidst the test data—that can hold the keys to improved performance in the future.”

Douglas B. Reeves
The Leader’s Guide to Standards, 2002

The AdvancED® Five Step Process:

1. Establish and Engage a Data Team
2. Identify and Compile Relevant Data
3. Use Guiding Questions to Evaluate and Analyze Data
4. Document Areas of Need
5. Create a Plan for Continued Data Collection and Use

Leverage Points:
- Clearly defined expectations
- Research-based instruction
Every year, institutions all across the world are tasked with making improvements based on knowledge and information readily available to them. Too often, however, support systems are put into place and improvement plans developed without a clear understanding of the institution’s true needs and root problems, simply because leaders do not conduct a systematic, objective review of key performance data. AdvancED has developed a suite of diagnostic tools to help institutions collect, analyze, and assess vital data and think critically about their areas of need in preparation for strategic plan development.

This tool can be used in conjunction with standardized test results provided by the Wyoming Department of Education (WDE) and local and district assessment data to identify areas of need around student performance. Assessing multiple types of data, other than state standardized tests, is critical when making decisions about student achievement (i.e., formative and summative classroom assessment, school and district-wide assessment, etc.). This tool will guide your institution through the process of identifying and analyzing these data based on key guiding questions, and will help your organization record its diagnostic results.

The results of the Student Performance Diagnostic will provide the basis for developing quality goals, measureable objectives, and a superior Improvement Plan that will make a difference for your students.

Follow the instructions for each of the five steps provided in the tool to complete a comprehensive Student Performance Diagnostic. The results of the Student Performance Diagnostic will provide the basis for developing quality goals, measurable objectives, and a superior Improvement Plan that will make a difference for your students.

This tool describes, in detail, all of the following core action steps:

1. Organize a dynamic, collaborative team that will be responsible for gathering and reviewing your institution’s performance data.

2. Identify and compile data, results, and reports critical to presenting an accurate picture of your institution’s student performance.

3. Analyze each data source using a series of defined questions that were developed and tested by recognized data and school improvement experts.

4. Flesh out and document your institution’s areas of need identified during Step 3. Upon completion of the provided worksheets, you will have a clearly documented picture of your institution’s student performance needs that will guide you in setting improvement goals.

5. Create a school-wide data collection system, transforming your school into a “data-rich” environment where results inform future strategies for success. Now that you have collected and analyzed multiple types of data, you need to establish a clear vision for your school-wide data plan/base and make data part of an ongoing cycle of instructional improvement.
Organize the Data Team

Be prepared to actively engage key staff in the process of analyzing data. Effective teams - comprised of people who are both knowledgeable and capable of understanding and using data effectively - will help enrich your school’s findings and encourage ownership in the results.

10 Tips for Establishing an Effective Data Team

- Enlist a team representative of multiple perspectives. (i.e., Principal, counselor, curriculum director, grade-level lead teachers, parent, data coach). Any one person or perspective cannot do a thorough diagnostic.
- Solicit team members who are: seen as leaders, willing/interested to dig into data, and who have good inquiry, communication and collaboration skills.
- Keep the team to a manageable size. If the team becomes too large, it is difficult to have productive meetings. It may be beneficial to establish sub-teams by content area, grade level, or department.
- Appoint a team chair who is responsible for facilitating the meetings, holding the team accountable for productive meetings, and recording the team findings.
- Establish meeting procedures, roles, norms, decision-making processes and structure (all need to speak a common language related to goals, data trends, and common interventions.)
- Develop a timeline and calendar. Schedule consistent data team meetings with clearly defined agendas.
- Establish and implement a plan for how the data will be used - not just by the team, but by ALL staff and stakeholders within the school.
- Make sure the team understands the purpose and importance of their role in guiding the decision making and improvement efforts in the school.
- Watch out for the potholes! A lot of data teams start out on the right path but quickly get overwhelmed by the amount of data, allow their preconceived notions to guide the conversation instead of the data, or get stuck in an endless search or conversation around a single data point. Keep an eye out for these types of obstacles and frequently revisit the charge of the team.

Your Team's Charge:

The team is responsible for identifying, gathering, and reviewing multiple sources of data. Its goal is to present an accurate picture of the institution’s student performance needs that will guide in setting improvement goals. Further, the team will develop a reliable structure for making data part of an ongoing cycle of Instructional Improvement.

The team should:

- Become experts on the school’s data
- Keep an open mind and “listen” to the data
- Analyze results and examine patterns and trends in the data
- Identify and prioritize the school’s areas of need
- Assist in the development of an improvement plan
- Create a school-wide data plan
- Share data and information with school staff and stakeholders
With a knowledgeable data team in place, it is time to identify and collect the data that should be reviewed. Have your team identify the data sources they believe should be reviewed. Begin pulling together all of the pertinent data, noting that multiple sources of aggregate and disaggregate data are needed. A single test on a single day does not provide a comprehensive representation of your school's overall performance.

What data do you have to demonstrate the performance of your students?

A. Wyoming schools have multiple standard sources of data available. Locate the reports/results for the standard data sources listed below. Aggregate data across the entire school population by content area, as well as disaggregated data by grade level, content area, subgroup, gender, and special populations, is needed for each of the data sources in order to answer the questions presented in Step 3. Compile multiple years of data where possible.

- Proficiency Assessments for Wyoming Students (PAWS) [http://fusion.edu.wyoming.gov/MySites/Data_Reporting/data_reporting_assessment_reports.aspx](http://fusion.edu.wyoming.gov/MySites/Data_Reporting/data_reporting_assessment_reports.aspx)
- English Language Learner (ELL) Assessment
- ACT - high school only
- Measures of Academic Progress (MAP) – Northwest Evaluation Association (NWEA) Quarterly Standardized Assessment
- National Assessment of Educational Progress (NAEP)

Don’t get paralyzed! Be diligent in looking for data, but if you can’t locate multiple years of data or a specific disaggregation set, note it as a problem and keep moving.

B. In addition to its statewide standardized test results, your school should have data from formative and summative classroom assessments, school- and district-wide assessments, and/or other observations/assessments. Locate the reports/results for these types of data sources. Again, both aggregate and disaggregated data are beneficial for each data source. Here are some examples.

- Common formative assessments
- Teacher-created assessments
- Classroom observations
- Running/reading records
- End of unit assessments
- End of course assessments
- District-wide assessments
- Performance assessments
- Portfolio assessments
- Teacher review of student work
- Student self-assessments
- Grades
C. Although this diagnostic tool is designed to help schools identify areas of student performance need, performance results alone are not helpful unless they are placed in proper context. In addition to the above-mentioned performance data, your team should compile all of the following:

**Demographic Data**
*Data that describes students, staff, building and community*
Enrollment, sub-groups, attendance, free and reduced lunch, graduation rates

**Organizational Effectiveness Data**
*Policies, procedures, and approaches to learning in place in the school*
Instructional strategies, time on task, behavior referrals, Self-Assessment (SA), parent participation

**Perception Data**
*Opinions, attitudes, and believes about the school*
Surveys, Interviews

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**Don’t Forget!**

Your school can now administer **Teacher, Student, and Parent** perception surveys at NO COST through AdvancED’s web-based survey system.

Need more information? Contact Karmen Gary at kgary@advanc-ed.org or (888) 413-3669, option 2
Now that your team has compiled its relevant data, reports, and results, it's time to dig in. Analyzing your institution's performance through multiple assessments will help identify gaps between your school's performance, Adequate Yearly Progress (AYP) and state targets, areas of low and/or declining performance, and specific populations that are most in need of improvement. Identifying these gaps and areas of need will help set priorities for improvement planning.

Analyzing student performance data is complex, but rewarding!
It requires adequate time, deliberate and careful review of data, and knowledge of the proper questions to ask in order to get honest answers. Below is a set of guiding questions to help shape the conversation and identify pertinent areas of need evident in the data.

Establish a Shared Belief and Understanding
Before you get neck deep in the data, consider the following questions:

1. Does everyone know what we mean by "achievement" and "success"?
2. Do we believe that all kids can learn? How would an outsider know this about our school?
3. How would the team currently describe the student achievement results of our school?
4. What are the variables affecting student achievement that are within our control?
5. Did our school make Adequate Yearly Progress (AYP)? If not, what content area do we need to focus on? Does everyone understand the significance of AYP?

Assess Aggregate Performance Data
(Ask these questions for each content area)

1. In comparing our school with district and state performance, are there any grade levels that stand out as in need of improvement? Highlight the grade(s) that are below the district and state targets.

2. Which grade(s) are experiencing the overall lowest performance? Highlight the grade(s) that are furthest from the performance target.

3. Which grade level(s) show a trend toward decreasing proficiency? Determine if student performance has improved or declined since the previous year(s). Even if students are meeting performance targets it is critical to identify areas where performance is not improving or remaining consistent. Highlight the grade(s) that show a declining performance trend.

AYP Compliance is Important!
AYP is calculated based on state standardized test data, so any area where your school is not making AYP (due to performance) will most likely emerge through this diagnostic process. If not, be sure to delve deeper into the data and identify areas of need that must be addressed for AYP compliance.
4. Are these findings consistent between multiple assessments?

5. Do we see any patterns or trends?
   What if anything, do we think they mean?

6. Which of these patterns or trends need to be addressed?

7. Do the data suggest any new questions?

8. How do conclusions relate to our instructional program in this area?

9. What are the possible action(s) that can be taken to address the factors identified?

Assess Disaggregated Performance Data (Ask these questions for each content area)

Analyzing data at an aggregate level is important, but simply stating an area of need such as, “4th grade students need to improve reading skills” is not adequate. In order to get at the heart of the problem, it is critical to dig deeper into the data, looking at specific subgroup and gender performance and assessing multiple sources of formative and summative assessments. This activity will result in the development of a specific goal and measurable objective.

1. In comparing our school with district and state performance, are there any subgroups or a particular genders that stand out as needing improvement?
   How do our subgroups and genders compare to district, state and national averages? For example, if 50% of African American students and 75% of Asian students are below the Reading target, it would be easy to identify Asian students as more in need of improvement. But a closer look at student demographic data and the counts of students tested may show that the population of African American students below target equates to 500 students and the Asian subgroup equates to only 2 students.

2. Which subgroup(s) or gender(s) in each grade level are experiencing the overall lowest performance? Is there an emerging pattern of low performance for a specific group of students?

3. Which subgroup(s) or gender(s) show a trend toward decreasing proficiency?

4. Are these findings consistent between multiple assessments?

5. Do we see any patterns?
   What if anything, do we think they mean?

6. Do the data suggest any new questions?

7. How do conclusions relate to our instructional program in this area?

8. What are the possible action(s) that can be taken to address the factors identified?

9. What instructional strategies will we use differently?

10. What other kinds of data would assist us in planning our instruction?
Look at Demographic Data

1. What is the demographic make-up of our student population? Has it changed over the past five years?
2. What has been the enrollment trend for the past five years?
3. What has been the attendance trend for the past five years?
4. What is the average number of years teachers in our school have been teaching?
5. What are the demographic characteristics of our teachers? What are their educational/professional backgrounds, and how long have they been at our school?
6. How long has the current administrator been at our school?
7. How are these demographic data used to inform decisions?
8. What challenges have been identified as a result of reviewing the data/information collected about our demographics?

Analyze Organizational Effectiveness Data

1. What do our QAR team findings, APR submissions, and other accreditation documents say about our organizational effectiveness and progress?
2. What does our Self-Assessment tells us about our school's areas of strength and opportunity?
3. What progress have we made in achieving the action steps and results specified in last year's school improvement plan?
4. What instructional strategies are in place to support student learning?
5. What additional services and activities do we conduct, other than academic instruction? Do we have data to demonstrate the need for and effectiveness of these additional programs and services?
6. How are our financial resources currently being utilized?
7. Are our facilities adequate and well-maintained?
8. Are our instructional and administrative supplies and materials adequate and effective?
9. How is our school using technology?
10. What has been our staff turnover trend over the past five years?
11. What types of family/community participation efforts are in place?
12. How do we communicate with students and families?
13. What has been the behavioral referral trend over the past five years?
14. How has attendance at parent-teacher conferences changed over the last five years?
15. How are these process data used to inform decisions?
16. What challenges have been identified as a result of reviewing the data/information collected about these process data?
Consider Perception Data

1. In what ways does the school collect information about student, staff, parent, and community perceptions?
2. What do these data say about how our school is perceived?
3. How are these perceptions data used to inform decisions?
4. What challenges have been identified as a result of reviewing the data/information collected about stakeholder perceptions?

Display Your School’s Data

Data should be displayed in clear, easy to understand graphs. Consider posting data in teacher break/work rooms, hallways, main office, etc.

4th Grade Reading Performance Trend by Ethnicity

Mathematics State Assessment Percentage Proficient Trend by Grade

Race/Ethnicity (2010-11)
Now that your data team(s) has gone through the process of analyzing your student performance data, it is time to document the findings and identified areas of need. The documentation resulting upon the completion of this step will help your school meet Wyoming Department of Education (WDE) compliance requirements for documenting the process for identifying areas of need for improvement planning through data analysis.

Utilizing the worksheet available in Attachment A as a framework, define your school's area(s) of need in detail; identify the source(s) and year of data used to identify the need. Determine if addressing the need will meet an AYP requirement, and create a "statement of need" with more granular detail about the target population and challenge(s) to be addressed.

In addition to school-wide performance, each Wyoming school is evaluated on the basis of achievement by eight subgroups:

- Caucasian
- Hispanic
- American Indian
- African American
- Asian
- Free/Reduced Lunch Eligible
- Individual Education Plan (IEP)
- Limited English Proficient (LEP)

Some schools may meet overall performance targets as a school, only to find that the targets for one or more subgroups were not met. In this instance, the school does not meet AYP and depending upon the number of years this subgroup has not met the target, will be identified as a high priority school or in need of improvement.

Any subgroup not making AYP should be identified as an area of need and at least one goal in your School Improvement Plan should be focused on this subgroup.
Now that your team has collected and analyzed multiple types of data, you need to establish a clear vision for your school-wide data plan and ensure that data collection and analysis are part of the ongoing cycle of instructional improvement. Here's how:

1. Create a school-wide calendar of assessments and data using the chart provided and identify all of the assessments/data that are given/collected throughout the year.

2. Establish a data collection schedule (beginning of school year, end of semester, end of school year) to monitor student achievement and other demographic, perception, and process data. Identify the following:
   - When should each piece of data be collected?
   - Who should collect each piece of data?
   - Who should organize the data and maintain the database?
   - How will the data be displayed? (binders, electronic database, charts on the walls in the hall or teachers’ lounge, parent teacher conferences, newsletters, in student portfolios)

3. Make adjustments (curricular, instructional, classroom, or school process) to optimize student learning and school functioning when the data suggest a need for change.

4. Determine professional development needs based on the data that impact teaching and learning.

5. Continuously collect, record and visually share/display data about student learning and other important school goals throughout the year.
Complete a separate worksheet for each content area. Identify the content area covered by the worksheet, the sources (and years) of data analyzed, and then specify the population(s) of students that need attention in the content area. Develop a statement of need for each group identified as an area of need and whether the group is also an area that did not make Adequate Yearly Progress (AYP).

### School Name

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<thead>
<tr>
<th>Content Area</th>
<th>Source/Year of Data</th>
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<tbody>
<tr>
<td>☐ Reading</td>
<td>☐ PAWS _______</td>
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<td>☐ Writing</td>
<td>☐ ELL Assessment ___</td>
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<td>☐ Mathematics</td>
<td>☐ MAP Quarterly Assessment _______</td>
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<td>☐ Science</td>
<td>☐ District-wide Assessment __________________________</td>
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<td>☐ Classroom Assessment ____________________________</td>
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**Group(s) of students that need attention:**

<table>
<thead>
<tr>
<th>Example</th>
<th>Grade</th>
<th>Gender</th>
<th>Subgroup/Population</th>
<th>Statement of Need</th>
<th>Missed AYP?</th>
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<tbody>
<tr>
<td>Example</td>
<td>2nd</td>
<td>Male</td>
<td>Hispanic</td>
<td>Based on a review of PAWS state assessment data, 22% of 2nd grade students scored proficient in writing. Further disaggregation of the data showed process and paragraph structure as areas of need.</td>
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