# Cindy Hill, Superintendent of Public Instruction

# Wyoming Department of Education

## Literacy and Numeracy Focus – Research-Based Practice

**Progressive, Multi-tiered System of Support, Interventions and Consequences for the Wyoming Accountability in Education Act**

# THE WYOMING ACCOUNTABILITY IN EDUCATION ACT

## MULTI-TIERED SYSTEM OF SUPPORT, INTERVENTIONS AND CONSEQUENCES

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# Multi-Tiered System of Support, Interventions and Consequences

In the pages that follow, the case will be made that, with a few low-performing exceptions, Wyoming schools are above average. They are typically well-funded, well-managed schools with excellent facilities and overall student performance in the top 40% of all states on the National Assessment of Education Progress (NAEP). Wyoming's PAWS scores are at an all-time high. Yet Wyoming educators will say they can do better.

According to Education Week, Wyoming is the national leader in adjusted education spending per student and eighth in unadjusted spending. (EdWeek) That has many lawmakers asking, are we getting enough for our money?

The Wyoming Accountability in Education Act (WAEA) includes seven goals:

- Become a national education leader among states;
- Ensure all students leave Wyoming schools career or college ready;
- Recognize student growth and increase the rate of that growth for all students;
- Recognize student achievement and minimize achievement gaps;
- Improve teacher, school and district leader quality;
- Maximize efficiency of Wyoming education;
- Increase credibility and support for Wyoming public schools.

The Wyoming Department of Education (WDE) vision is to support the development of an evidence-based, highly reliable, school system statewide that meets the goals and requirements of the Wyoming Accountability in Education Act. This system of support is summarized on page 4.

Cindy Hill, Superintendent of Public Instruction

# Wyoming Department of Education

Statewide System of Support

# WDE SUPPORT PRIORITIES

**FOCUS -** Growing all Wyoming students in literacy and numeracy

**STRUCTURE –** Implementing a high reliability, evidence-based system that includes five levels of school effectiveness:

- A Safe and Orderly Environment that Supports Cooperation and Collaboration
- An Instructional Framework that Develops and Maintains Effective Instruction in Every Classroom
- An Essential Curriculum Focused on Enhancing Student Learning
- A Standards-Referenced System of Reporting Student Progress
- A Competency-Based System that Ensures Student Mastery of Content

**RESOURCE ALLOCATION –** Allocating resources to research-based methods to increase student achievement

**COLLECTIVE RESPONSIBILITY -** Assuring that all Wyoming students are making progress. This includes decisive intervention for students in need and acceleration for high achieving students

**SHARED PRACTICE -** Sharing effective practices with professional educators and policy makers statewide

# STATEWIDE FOCUS

School and district improvement is accomplished at the local level through a clear focus on instruction. Positive results occur when all adults in the school, particularly teachers and leaders, work together in collaboration to accomplish the goal of student learning.

School improvement is not a mystery. It requires a safe and orderly environment, high-yield instructional strategies, a coherent curriculum, ongoing assessment of student performance and students engaged in learning. If Wyoming schools are going to improve on standardized test scores in math, reading and writing, it seems apparent that literacy and numeracy should be the focus of schools. However, that focus is often lost among the various interests competing for the time and attention of leaders, teachers and students.

The message in much current education literature is that "*initiative fatigue*" for teachers and leaders is hampering student achievement. In Finding Your Leadership Focus, Doug Reeves speaks of the "litany of prescriptions that piles one idea on top of another, crushing school leaders, teachers and ultimately students under the weight of too many attractive ideas" (Reeves, 2011, p. 4). It is easy to say no to bad ideas and more difficult to say no to good ones, particularly when adequate financial resources are available.

Dianne Ravitch, former U.S. Assistant Secretary of Education, urges us to beware of what she refers to as the "the royal road to learning" which she describes as "the notion that some savant or organization has found an easy solution to the problems of American education." She goes on to say, "I have tried to show in my work the persistence of our national infatuation with fads, movements and reforms, which invariably distract us from the steadiness of purpose needed to improve our schools" (NPR, 2011).

In Focus – Elevating the Essentials to Radically Improve Student Achievement, Mike Schmoker contends the major problem facing most schools is constantly adopting new products, programs and initiatives and failure to do the few simple things that will make a difference in student achievement. According to Schmoker:

> Our failure to be clear and focused prevails even as we continue, year after year, to attend conferences, workshops, and book studies; adopt complex programs and initiatives; divide students into groups based on their respective 'learning styles'; and 'integrate technology' into our instruction – all while denying students a coherent curriculum, sound lessons, and meaningful opportunities to read and write. (Schmoker M. J., 2011, p. 13)

In <u>Finding Your Leadership Focus</u>, Doug Reeves writes:

> The compelling conclusion of the research is that schools with higher levels of focus not only have higher levels of student achievement but also are better able to implement other essential leadership strategies.  In many cases, school leaders fall victim to the Law of Initiative Fatigue involuntarily, because their scattershot approach to programs reflects a similarly diffused and growing set of requirements from higher authorities.  Therefore, in order for schools to focus, it is first necessary to address mechanisms to help the entire school system establish leadership focus.
>
> Fortunately, there is evidence not only in this study but elsewhere that this is possible.  Levin (Levin, 2008) documents in a convincing manner the case of Ontario, where the Ministry of Education created widespread systemic improvements for more than 5,000 schools as they established a focus on literacy, numeracy and decisive intervention for students in need (Reeves, 2011, p. 51).

The Common Core State Standards, recently adopted by Wyoming, are designed on the premise that the curriculum in too many schools is a mile wide and an inch deep.  The common core standards clearly articulate two basic expectations:

- Increase the quality and complexity of reading and writing in all subjects.

- Make arithmetic a clear priority in the elementary grades and build upon that foundation in the upper grades.

## Examples of Excellence

**Ontario**

According to Ben Levin in <u>How to Change 5000 Schools</u>, (Levin, 2008, pp. 18-31), Ontario has been steadily climbing in international comparisons for the past decade.  Much can be learned from the strategies used in Ontario to renew the public school system.  And, much can be learned from their mistakes in the 1990s that led to the need to renew the public school system. During the 1990's the Ontario government:

- Broadcast television ads portraying teachers as overpaid and underworked.
- Cut budgets and reduced staffing.  Increased staffing workloads were mandated by legislation.
- Reduced the number of the school districts and limited local control.
- Implemented a teacher evaluation system with compulsory input from parents and students.
- Promoted private schools through tax cuts and minimal regulations.
- Created an Accountability Office to oversee substantial increases in testing.

By the early 2000s, graduation rates were falling, student scores had declined, teacher strikes were widespread and there was widespread dissatisfaction with the Ontario education system. A new government was elected whose platform was renewing the public education system.

**The Current Ontario Education Strategy**

**Key goals**

- Improve a broad range of student outcomes
- Reduce the gaps in achievement
- Increase public confidence in education

**Main Strategies**

- Improve teaching of literacy and numeracy across 4000 elementary schools; 75% of students to reach provincial standards from age 12 – up from 55%.
- Improve graduation rates across more than 800 high schools; 85% of students to graduate within five years of starting ninth grade – up from 68%.
- Reduce class size in primary years to maximum of 20 in at least 90 percent of classes.

**Other Strategies**

- Safe schools
- Parent involvement
- Aboriginal education
- Leadership development
- Labor peace
- Using data effectively
- Special education
- Community use of school facilities
- School buildings renewal
- Teacher development – induction, more professional development
- Enrichment – arts, music, physical activity

In What America Can Learn from Ontario's Education Success, Michael Fullan says that since 2003 the Ontario school system has moved from stagnation to world leadership in education. He attributes their success to doing five things in concert – focusing, building relationships, being persistent, developing capacity and spreading quality implementation.

According to Fullan, the Ontario government and school system committed to long-term goals. The government established a two-way partnership and collaboration between stakeholders and provided significant autonomy to school districts to reach the goals.

Ongoing, non-judgmental systems of teacher capacity building were developed by establishing transparent results and practices, not through rewards and punishment.  Finally, the Ministry of Education guided local school districts to develop a collaborative, professional environment and acted as a clearinghouse for innovation and best practices (Fullan, The Atlantic, 2012).

**Finland**

The academic performance of students in Finland is at or near the top of international comparisons.  Finland's student performance is quite consistent, regardless of school.  The improvement of Finland's education system has been slow and steady and not the result of a particular innovation, political party or leader.

This success is attributed to the following:

- Political consensus to educate all children together in a common school system;
- An expectation that all children can achieve at high levels, regardless of family background or regional circumstance;
- Single-minded pursuit of teaching excellence;
- Collective school responsibility for learners who are struggling;
- Modest financial resources that are tightly focused on the classroom;
- A climate of trust between educators and the community (OECD, Finland: Slow and Steady Reform for Consistently High Results, 2010, p. 117).

Some contend little can be learned from Finland because the country has few ethnic minorities and higher than average socioeconomic status.  However, Finland's per student spending is lower than the United States.

**Adlai E. Stevenson High School**

Adlai E. Stevenson High School in Lincolnshire, IL is one of the leading high schools in America with over 4000 students, a 96% graduation rate and an average ACT test score of 26.  97% of students attend college (Stevenson, 2012). Stevenson's average ACT score was 22 in 1985. (Schmoker M. , 2001) Stevenson is an example of a school that went from good to great with a few simple practices.

According to the Results Field Book,

> Stevenson began its celebrated journey with a focus on only two things:
>
> - Directing teams of teachers to create and help each other to implement a quality, common curriculum for every course (the first foundational step toward improvement).

- Directing the teams to ensure sound, ever-improving instruction and lessons.  To ensure implementation, leaders (including teacher leaders and department heads) met with teams each quarter to discuss progress on common quarterly assessments (which had a hefty writing component).

Stevenson stayed focused on these things for five years, resisting any temptation to add or adopt new programs.  All professional development during this period was internal – most of it occurring in the team meetings. In addition, leaders at Stevenson routinely recognized and celebrated measurable success and progress on common assessments at every meeting (Schmoker M. , 2001).

Wyoming is in a comparable situation, with an average ACT score of 20.3.  Wyoming is tied for fourth out of eight states that require all students to take the ACT, lagging slightly behind North Dakota, Illinois and Colorado (ACT, 2012).

**Arapahoe Elementary (K-8 School)**

Arapahoe Elementary, in Arapahoe, Wyoming asked for help from the WDE in August 2011.  The school and district leadership received the school's 2011 state Proficiency Assessment for Wyoming Students (PAWS) reading scores and at least one grade was the lowest in Wyoming.

During the 2011-12 school year, the WDE contracted with two full-time reading specialists and the school district contracted with approximately 15 tutors, predominantly certified teachers, to conduct a one-on-one tutoring program for the school.  Some WDE employees were also used as part-time tutors during the fall of 2011. The methods used aligned predominately to the "Second/Third Chance" reading research referenced on page 39 of this document.

This collaborative effort between the WDE and the district produced notable results.  For example, the cohort of students performing at 18% proficient/advanced in third grade in 2011 improved to over 58% in fourth grade in 2012.  All other grades improved significantly as well.

| Grade | 2011 Percent Proficient and Advanced | 2012 Percent Proficient and Advanced | % Change |
|---|---|---|---|
| 03 | 18.4 | 34.2 | 15.7 |
| 04 | 47.2 | 58.5 | 11.3 |
| 05 | 33.3 | 60.5 | 27.2 |
| 06 | 64.0 | 64.3 | 0.3 |
| 07 | 46.7 | 59.3 | 12.6 |
| 08 | 47.4 | 62.1 | 14.7 |

## Failing Schools

Across the United States, the Obama administration has spent billions in federal funds focused on the lowest performing schools. The plight of America's failing schools has received massive media attention. Much national discussion has been focused on giving parents publicly funded alternatives to the chronically failing public school in the neighborhood where they live.

For-profit and non-profit school improvement companies and consultants are abundant, offering products and services to turn around, transform or take over failing schools, presumably because federal money is targeted for that purpose. A recent Denver Post investigative series, Cashing in on School Failure, raised concern about the return on investment for these companies and consultants in Colorado and nationwide. (Brown, 2012)

### Wyoming's Low Performing Schools

Undoubtedly, every student, every teacher and every school should be making progress. However, out of nearly 350 Wyoming public schools, 15 are, by definition, persistently low achieving. Eight are alternative high schools. Of the remaining failing schools, three are on the Wind River reservation. Two of these are charter high schools (WDE, 2012).

There are 1212 students in these schools out of 88,747 students in Wyoming, or 1.4%. Transforming all of the persistently low-achieving schools in Wyoming would likely make no difference in Wyoming's overall rank on state comparisons.

For nearly all Wyoming residents, the preferred and best education option is the local public school in the neighborhood or town where students live. The collective focus should be on improving all public schools for all students in Wyoming, not exclusively on low-performing schools and low-performing students.

## Current Wyoming Student Achievement

Recent advances in education research allow a more precise understanding of appropriate differentiation of enrichments and interventions on the basis of current school performance level. Accurate data at all levels is important for determining prior knowledge and appropriate progression, which is at the heart of school improvement.

Based on 2011 data, Wyoming ranks above 60% of other states on NAEP. Scale scores from Massachusetts are referenced because they are the highest in the nation. Mississippi is included because its scores are among the lowest.

## NAEP MATH

## NAEP READING



Chart: NAEP 8th Grade Reading scores (1998, 2005, 2011)
- Wyo. 8th Reading
- Mass. 8th Reading
- Miss. 8th Reading
- National Average



Chart: NAEP 4th Grade Reading scores (1998, 2005, 2011)
- Wyo. 4th Reading
- Mass. 4th Reading
- Miss. 4th Reading
- National Average
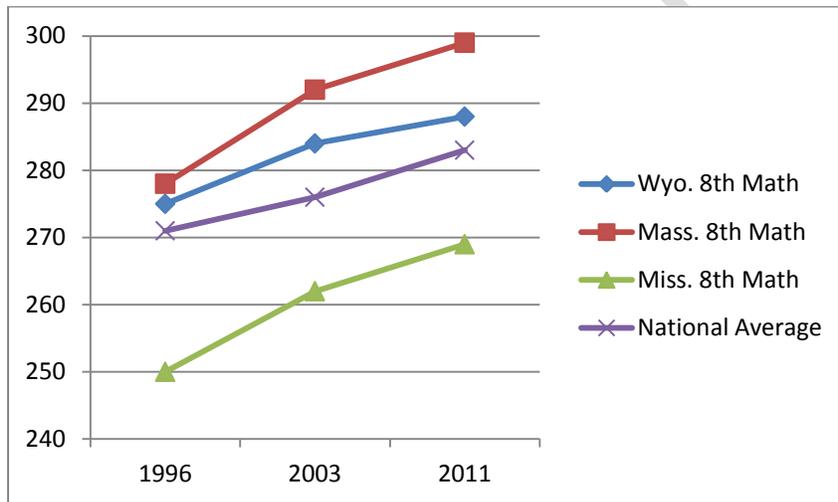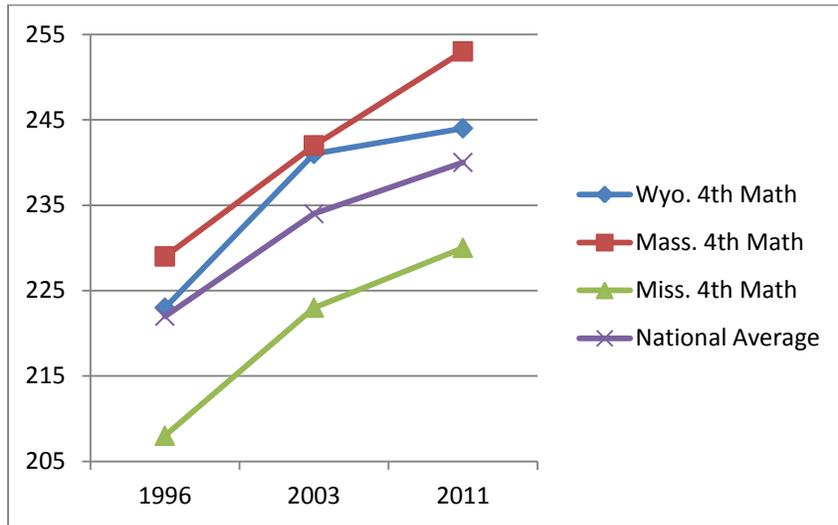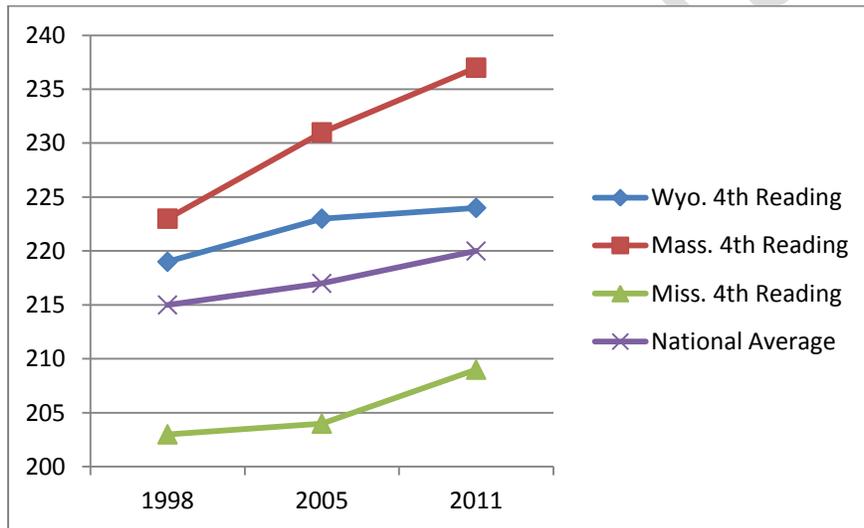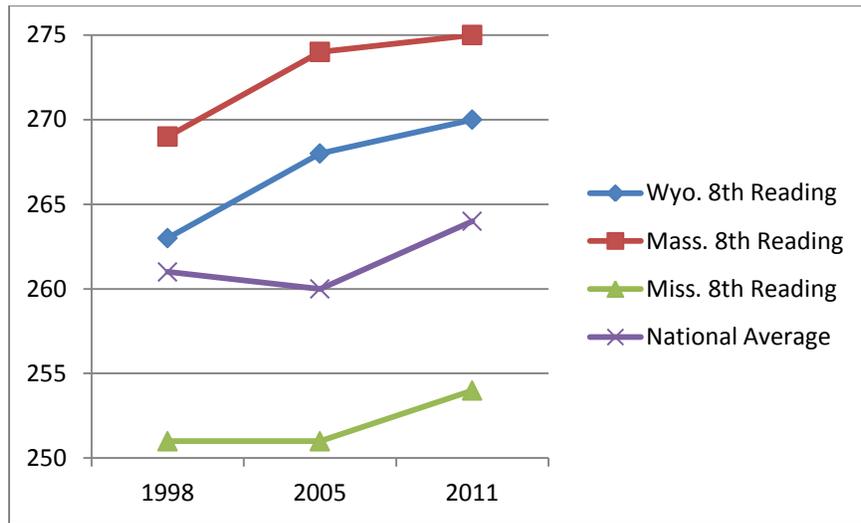
| NAEP Percent Proficient 2011 | 4th Reading | Rank | NAEP Percent Proficient 2011 | 8th Reading | Rank | NAEP Percent Proficient 2011 | 4th Math | Rank | NAEP Percent Proficient 2011 | 8th Math | Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Massachusetts | 50 | 1 | Massachusetts | 46 | 1 | Massachusetts | 58 | 1 | Massachusetts | 58 | 1 |
| New Jersey | 44 | 2 | New Jersey | 45 | 2 | New Hampshire | 57 | 2 | Minnesota | 57 | 2 |
| New Hampshire | 43 | 3 | Connecticut | 45 | 3 | Minnesota | 53 | 3 | New Jersey | 53 | 3 |
| Maryland | 43 | 4 | Vermont | 44 | 4 | New Jersey | 51 | 4 | Vermont | 51 | 4 |
| Connecticut | 42 | 5 | Montana | 42 | 5 | Vermont | 49 | 5 | Montana | 49 | 5 |
| Pennsylvania | 41 | 6 | Colorado | 40 | 6 | Pennsylvania | 48 | 6 | New Hampshire | 48 | 6 |
| Vermont | 41 | 7 | Maryland | 40 | 7 | Kansas | 48 | 7 | Colorado | 48 | 7 |
| DoDEA | 39 | 8 | New Hampshire | 40 | 8 | Maryland | 48 | 8 | North Dakota | 48 | 8 |
| Virginia | 39 | 9 | Minnesota | 39 | 9 | Wisconsin | 47 | 9 | South Dakota | 47 | 9 |
| Colorado | 39 | 10 | DoDEA | 39 | 10 | Colorado | 47 | 10 | Wisconsin | 47 | 10 |
| Nebraska | 36 | 11 | Maine | 39 | 11 | North Dakota | 46 | 11 | Kansas | 46 | 11 |
| Delaware | 36 | 12 | Pennsylvania | 38 | 12 | Virginia | 46 | 12 | Washington | 46 | 12 |
| Kansas | 36 | 13 | Wyoming | 38 | 13 | Connecticut | 45 | 13 | Maryland | 45 | 13 |
| North Dakota | 36 | 14 | Washington | 37 | 14 | Ohio | 45 | 14 | Texas | 45 | 14 |
| Montana | 36 | 15 | Ohio | 37 | 15 | Montana | 45 | 15 | Virginia | 45 | 15 |
| Kentucky | 35 | 16 | Kentucky | 36 | 16 | Maine | 45 | 16 | Ohio | 45 | 16 |
| Minnesota | 35 | 17 | Virginia | 36 | 17 | Washington | 45 | 17 | Pennsylvania | 45 | 17 |
| Florida | 35 | 18 | Kansas | 35 | 18 | North Carolina | 44 | 18 | Maine | 44 | 18 |
| Rhode Island | 35 | 19 | Utah | 35 | 19 | Indiana | 44 | 19 | Connecticut | 44 | 19 |
| New York | 35 | 20 | South Dakota | 35 | 20 | Wyoming | 44 | 20 | Wyoming | 44 | 20 |
| Washington | 34 | 21 | Missouri | 35 | 21 | Iowa | 43 | 21 | North Carolina | 43 | 21 |
| Wyoming | 34 | 22 | New York | 35 | 22 | Utah | 43 | 22 | Idaho | 43 | 22 |
| Missouri | 34 | 23 | Wisconsin | 35 | 23 | Rhode Island | 43 | 23 | DoDEA | 43 | 23 |
| Ohio | 34 | 24 | Nebraska | 35 | 24 | Missouri | 41 | 24 | Alaska | 41 | 24 |
| North Carolina | 34 | 25 | North Dakota | 34 | 25 | South Dakota | 40 | 25 | Utah | 40 | 25 |
| Wisconsin | 34 | 26 | Idaho | 34 | 26 | Hawaii | 40 | 26 | Indiana | 40 | 26 |
| Utah | 33 | 27 | Illinois | 34 | 27 | National public | 40 | | Rhode Island | 40 | 27 |
| Illinois | 33 | 28 | Rhode Island | 33 | 28 | Idaho | 39 | 27 | Iowa | 39 | 28 |
| Iowa | 33 | 29 | Delaware | 33 | 29 | Nebraska | 39 | 28 | National public | 39 | |
| Indiana | 33 | 30 | Iowa | 33 | 30 | Texas | 39 | 29 | Illinois | 39 | 29 |
| Idaho | 33 | 31 | Oregon | 33 | 31 | Kentucky | 39 | 30 | Nebraska | 39 | 30 |
| Georgia | 32 | 32 | Michigan | 32 | 32 | DoDEA | 39 | 31 | Oregon | 39 | 31 |
| National public | 32 | | Indiana | 32 | 33 | Delaware | 39 | 32 | Delaware | 39 | 32 |
| Maine | 32 | 33 | National public | 32 | | Illinois | 38 | 33 | South Carolina | 38 | 33 |
| Alabama | 31 | 34 | North Carolina | 31 | 34 | Florida | 37 | 34 | Missouri | 37 | 34 |
| South Dakota | 31 | 35 | Alaska | 31 | 35 | Arkansas | 37 | 35 | Arizona | 37 | 35 |
| Michigan | 31 | 36 | Florida | 30 | 36 | Georgia | 37 | 36 | Michigan | 37 | 36 |
| Oregon | 30 | 37 | Arizona | 28 | 37 | Oregon | 37 | 37 | Kentucky | 37 | 37 |
| Arkansas | 30 | 38 | Arkansas | 28 | 38 | Alaska | 37 | 38 | New York | 37 | 38 |
| South Carolina | 28 | 39 | Georgia | 28 | 39 | South Carolina | 36 | 39 | Hawaii | 36 | 39 |
| Texas | 28 | 40 | Tennessee | 27 | 40 | New York | 36 | 40 | Arkansas | 36 | 40 |
| Hawaii | 27 | 41 | Oklahoma | 27 | 41 | Nevada | 36 | 41 | Nevada | 36 | 41 |
| West Virginia | 27 | 42 | South Carolina | 27 | 42 | Michigan | 35 | 42 | Georgia | 35 | 42 |
| Oklahoma | 27 | 43 | Texas | 27 | 43 | California | 34 | 43 | Florida | 34 | 43 |
| Arizona | 26 | 44 | Nevada | 26 | 44 | Arizona | 34 | 44 | Oklahoma | 34 | 44 |
| Tennessee | 26 | 45 | Hawaii | 26 | 45 | Oklahoma | 33 | 45 | California | 33 | 45 |
| Alaska | 26 | 46 | Alabama | 26 | 46 | West Virginia | 31 | 46 | Tennessee | 31 | 46 |
| Nevada | 25 | 47 | West Virginia | 24 | 47 | Tennessee | 30 | 47 | New Mexico | 30 | 47 |
| California | 25 | 48 | California | 24 | 48 | New Mexico | 30 | 48 | Louisiana | 30 | 48 |
| Louisiana | 23 | 49 | Louisiana | 22 | 49 | Alabama | 27 | 49 | West Virginia | 27 | 49 |
| Mississippi | 22 | 50 | New Mexico | 22 | 50 | Louisiana | 26 | 50 | Alabama | 26 | 50 |
| New Mexico | 21 | 51 | Mississippi | 21 | 51 | Mississippi | 25 | 51 | Mississippi | 25 | 51 |
| District of Columbia | 19 | 52 | District of Columbia | 16 | 52 | District of Columbia | 22 | 52 | District of Columbia | 22 | 52 |

The yellow band indicates states that the NAEP site says are statistically equivalent to Wyoming's percentage of students at or above NAEP's definition of proficiency.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011

**Comparison between districts - PAWS scores and trends**

Since 2005 statewide proficiency on the PAWS test has been increasing. Three districts were selected for comparison – Natrona 1, Laramie 1 and Carbon 2. Natrona 1 and Laramie 1 were selected because they are among the largest districts. Carbon 2 is included as representative of a small district with a varied and diverse population.

**PAWS Writing Trend**

| | 05-06 Writing | 10-11 Writing |
|---|---|---|
| All STATE | 49 | 80 |
| All Carbon 2 | 53 | 81 |
| All Laramie 1 | 51 | 78 |
| All Natrona 1 | 41 | 73 |



**PAWS Reading Trend**

| | 05-06 Reading | 10-11 Reading |
|---|---|---|
| All STATE | 63 | 75 |
| All Carbon 2 | 66 | 81 |
| All Laramie 1 | 64 | 74 |
| All Natrona 1 | 57 | 73 |
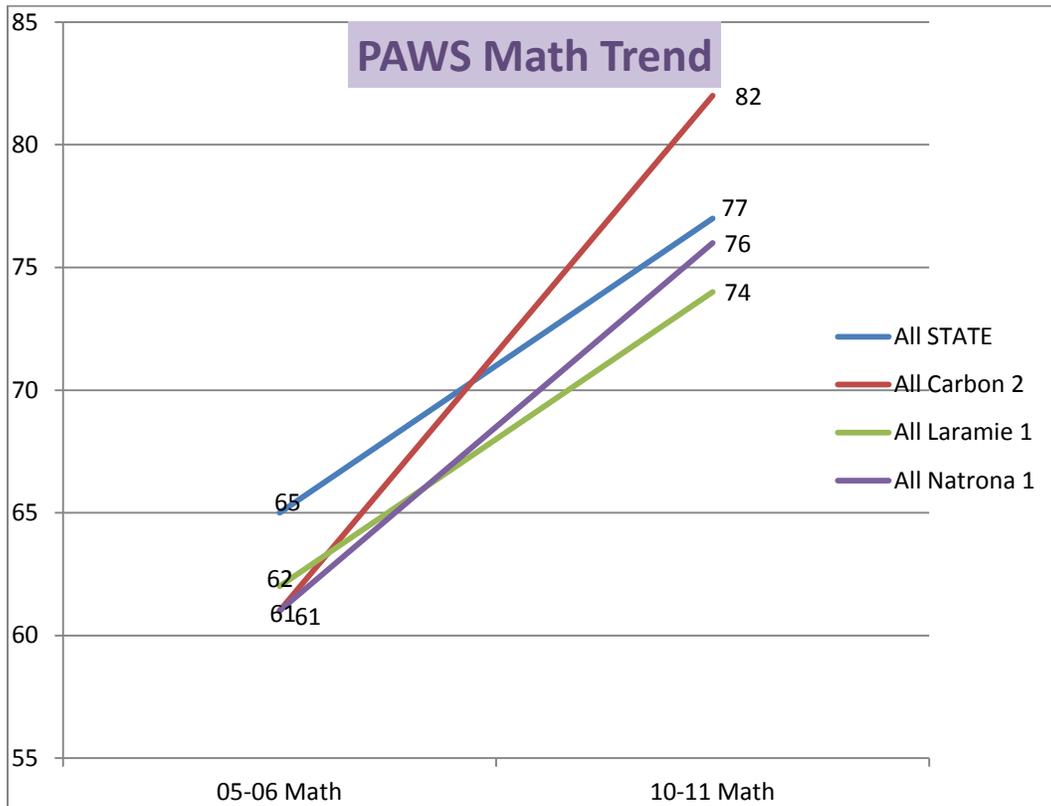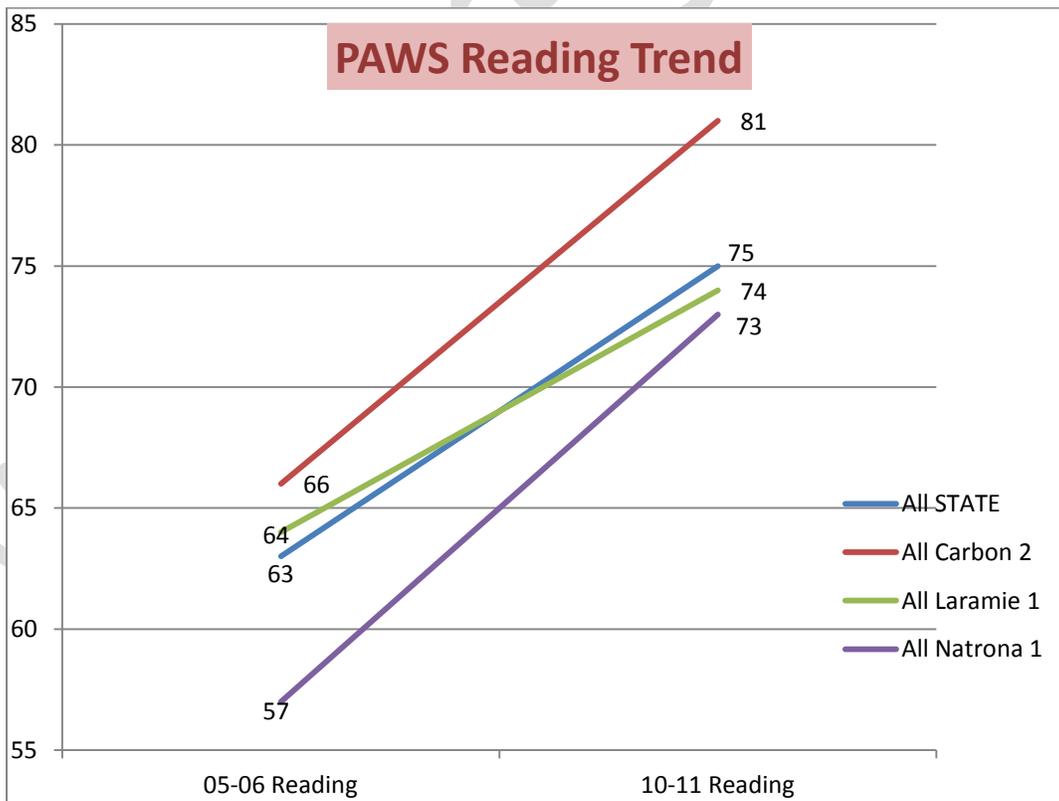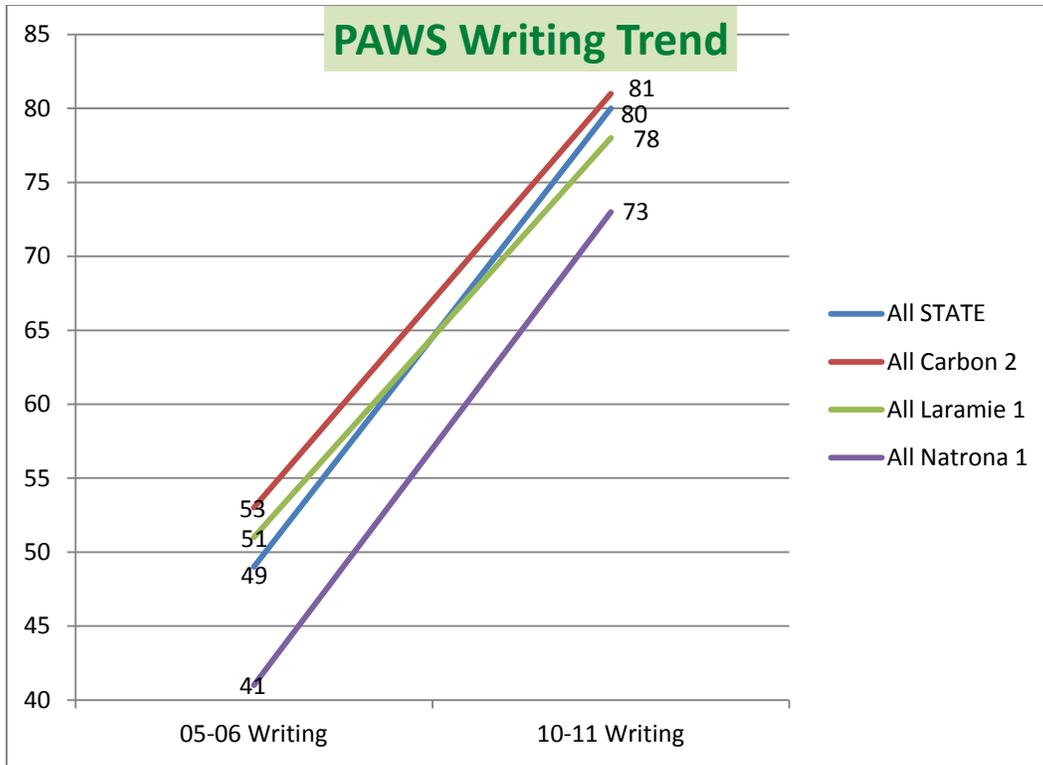
Based on the rationale that effective practices lead to desired results, Wyoming schools apparently have many effective practices in place that influence student achievement. In considering interventions and enrichments, schools should first analyze the practices leading to current levels of improvement and determine which practices should not change.

**Comparison to other States**

The Quality Counts Custom Table Builder from Education Week Magazine http://www.edcounts.org/createtable/step1.php allows comparison between states on hundreds of variables. It is impossible to definitively say where Wyoming ranks in comparison to other states without clearly defining the basis of comparison.

**Autonomy**

There is clear rationale for increasing accountability without decreasing autonomy. Based on international studies, "In countries where schools account for their results by posting achievement data publicly, schools that enjoy greater autonomy in resource allocation tend to show better student performance than those with less autonomy. In countries where there are no such accountability arrangements, schools with greater autonomy in resource allocation tend to perform worse" (OECD, 2011, p. 1).

They go on to say "Autonomy and accountability go together: greater autonomy in decisions relating to curricula, assessments and resource allocation tend to be associated with better student performance, particularly when schools operate within a culture of accountability" (OECD, 2011, p. 4).

**Supporting WAEA**

The support requirements of the Wyoming Accountability in Education Act (WAEA) will be accomplished by improving systems that are in place at the WDE at no additional cost. The WDE intends to make support for No Child Left Behind (NCLB) congruent with support for WAEA by making both the responsibility of the WDE School Improvement and Accreditation section. The support requirements of both statutes are closely aligned. Some of the professional development requirements of other state and federal statutes will be aligned to the WAEA system as well.

# STRUCTURE FOR SCHOOL IMPROVEMENT

**Key Areas of Support**

Richard Elmore, an education professor from Harvard University Graduate School of Education, contends the instructional core is central to increasing student achievement. According to Elmore, *"The relationship of the teacher and the student in the presence of content must be at the center of efforts to improve performance"* (Elmore, 2009).
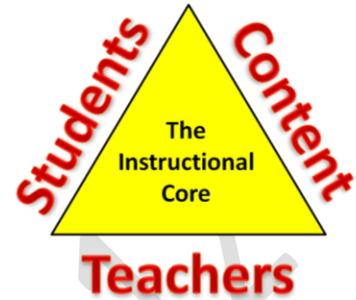
Robert Marzano, director of Marzano Research Laboratory, suggests the development of a Wyoming school improvement framework. According to Marzano, there are basically two types of frameworks. The first are correlate or indicator-based improvement frameworks that articulate the major categories of improvement and the indicators or correlates to improvement. An example is the WISE® framework from Oklahoma that divides school improvement into nine categories and provides correlates or indicators in each category. The Oklahoma system is detailed at http://ok.gov/sde/wise. An example is:

**Academic Learning and Performance – INSTRUCTION**

- All teachers use varied instructional strategies that are scientifically research based.
- All teachers use instructional strategies and activities that are aligned with learning objectives.
- All teachers use instructional strategies and activities that are differentiated to meet specific student learning needs.
- All teachers demonstrate the content knowledge necessary to challenge and motivate students to high levels of learning.
- All teachers incorporate the use of technology in their classrooms when it enhances instruction.
- School leadership provides sufficient instructional resources that are used by teachers and students for standards-aligned learning activities.
- All teachers examine and discuss student work collaboratively and use this information to inform their practice.
- All teachers assign purposeful homework and provide timely feedback to students.
- School leadership and all teachers address academic and workplace literacy and data analysis skills across all content areas.

Many states have an improvement document that details the correlates or indicators that presumably will lead to increased student achievement. These correlates are often tracked through an online computer system named Indistar® (http://www.indistar.org/) that was developed by the Center on Innovation and Improvement.  From the Wyoming Department of Education's perspective, there are two problems with Indistar® based frameworks.

The first is that there are far too many correlates.  For example, the Oklahoma WISE® framework has ninety correlates that a school must address.  School Improvement Grant (SIG) recipients in Wyoming have used Indistar® to track over 100 SIG indicators.  Even though they generally like the Indistar® system, these schools contend that there are simply too many priorities.

The second concern is the research methodology behind these indicators.  While these may all be "research-based", some are far more effective than others.  This concern is addressed in detail in the next section.

The third concern is whether the same correlates can be applied to all schools.  Making a list of correlates and requiring them all to be implemented at the same time is likely impossible for low performing schools.  The solution, according to Marzano, is a system that includes both levels and indicators.  According to Marzano there are five levels of school effectiveness.  These are:

- A Safe and Orderly Environment That Supports Cooperation and Collaboration
- An Instructional Framework That Develops and Maintains Effective Instruction in Every Classroom
- An Essential Curriculum Focused on Enhancing Student Learning
- A Standards-Referenced System of Reporting Student Progress
- A Competency-Based System That Ensures Student Mastery of Content

Marzano suggests working on the first three simultaneously, then adding the other two levels after the first three are firmly in place.

Ultimately the school improvement framework will guide school improvement plans and school improvement efforts at the local, district and state level.  This framework will provide a common vocabulary, and common themes for statewide professional development.

Dr. Marzano has given the WDE permission to modify and use the following framework as the starting point for development of a statewide school improvement framework.

# Marzano Levels of School Effectiveness

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The five levels of school effectiveness are based on Robert J. Marzano's publications, research, and practical experiences working with teachers, schools, and districts in every state in the nation over a thirty-year period of time.

Movement of a school through these levels is intended to produce a system that has "high reliability" regarding each level for which the school has successfully demonstrated it satisfies the criterion indicators (evidence).

In effect, when a school has met the evidence for a specific level in the model, it consistently monitors those practices and makes immediate corrections when school performance falls below acceptable levels.

The effective practices for each level can be considered more qualitative evidence that a school is at or approaching a specific level. The evidence for a given level can be considered the minimally acceptable levels of performance that must be satisfied for a school to be deemed as reliable for that specific level.

As a school moves through the levels, it becomes reliable relative to more variables and becomes more transformational in its approach to educating its students. At the highest level (i.e., level 5) a school has made a dramatic shift in the way it "does business" and can guarantee that every student has mastered specific content necessary for success in the 21st century.

Some general guidelines to follow when using this model that are not directly addressed in this outline include:

- Schools can and should work on the effective practices for multiple levels simultaneously, especially for levels 1, 2, and 3.

- The teacher evaluation system used in a school should directly support attainment of the levels in the model. (See the Marzano Teacher Evaluation System for examples.)

- The school leader evaluation system used in a school should directly support attainment of the levels in the model. (See the Marzano School Leader Evaluation System for examples.)

**Note**

*These pages are taken directly from Marzano's publication with modifications. Marzano used the words Leading Indicator and Lagging Indicator throughout the original document. To avoid confusion with the term content indicator used in WAEA and to make this framework more congruent with WAEA, the term Leading Indicators was changed to "Effective Practices" and Lagging Indicators was changed to "Evidence". Throughout the document, Guaranteed and Viable Curriculum was changed to Essential Curriculum.*

# Level 1: A Safe and Orderly Environment That Supports Cooperation and Collaboration

**Effective Practices:**

**(1) The faculty and staff perceive the school environment as safe and orderly.**

*Examples:*

- When asked, faculty and staff describe the school as a safe place
- When asked, faculty and staff describe the school as an orderly place
- Clear and specific rules and procedures are in place for the running of the school
- Faculty and staff know the emergency management procedures and how to implement them for specific incidents
- Evidence of practicing emergency management procedures for specific incidents is available
- Evidence of updates to emergency management plans is available

**(2) Students, parents, and the community perceive the school environment as safe and orderly.**

*Examples:*

- When asked, parents and students describe the school as a safe place
- When asked, parents and students describe the school as an orderly place
- Clear and specific rules and procedures are in place for the running of the school
- The school employs social media so that students may anonymously report potential incidents
- The school has a means of communicating to parents about issues regarding school safety (e.g., call-out system)
- The school coordinates with local law enforcement agencies regarding school safety issues
- The school engages parents and community regarding issues of school safety

**(3) Teachers have formal roles in the decision-making process regarding school initiatives.**

*Examples:*

- The specific types of decisions on which teachers will have direct input are made clear
- Data-gathering techniques are in place to collect information from teachers
- Notes and reports are in place that describe how teacher input was used when making specific decisions
- Electronic tools are utilized to collect and report teacher opinions regarding specific decisions (e.g., Survey Monkey)
- Groups of teachers are targeted and utilized to provide input regarding specific decisions

**(4) Teacher teams and collaborative groups regularly interact to address common issues regarding curriculum, assessment, instruction, and the achievement of all students.**

*Examples:*
- Professional learning communities (PLCs) are in place
- PLCs have written goals
- The school regularly examines the PLCs' progress toward goals
- Common assessments are created by PLCs
- Student achievement and growth are analyzed by PLCs
- Data teams are in place
- Data teams have written goals
- The school regularly examines each data team's progress toward goals
- The school collects and reviews minutes, notes, and goals from meetings to maintain a focus on student achievement

**(5) Teachers and staff have formal ways to provide input regarding the optimal functioning of the school.**

*Examples:*
- Data collection systems are in place to collect opinion data from teachers and staff regarding the optimal functioning of the school
- Data is archived and reports regularly generated regarding these data
- The manner in which these data are used is made transparent
- The school improvement team provides input regarding the school improvement plan

**(6) Students, parents, and community have formal ways to provide input regarding the optimal functioning of the school.**

*Examples:*
- Data collection systems are in place to collect opinion data from students, parents, and community regarding the optimal functioning of the school
- Data is archived and reports regularly generated regarding these data
- The manner in which these data are used is made transparent
- The school provides an interactive website for students, parents, and the community
- The school engages in social networking technologies (Twitter, Facebook) to involve students, parents, and community
- The school engages in virtual town hall meetings
- The school conducts focus group meetings with students
- The school hosts or speaks at community/business luncheons

**(7) The success of the whole school, as well as individuals within the school, is appropriately acknowledged**

*Examples:*

- When asked, faculty and staff report that the accomplishments of the school have been adequately acknowledged and celebrated
- When asked, faculty and staff report that their individual accomplishments have been adequately acknowledged and celebrated
- The school recognizes the accomplishments of individual teachers, teams of teachers, and the whole school in a variety of ways (e.g., faculty celebrations, newsletters to parents, announcements, websites, social media)
- The school recognizes the success of individual departments
- The school regularly celebrates the success of a variety of types of individuals (e.g., teacher of the year, support staff employee of the year)

**(8) The fiscal, operational, and technological resources of the school are managed in a way that directly supports teachers.**

*Examples:*

- When asked, faculty and staff report that they have adequate materials to teach effectively
- When asked, faculty and staff report that they have adequate time to teach effectively
- The school develops, submits, and implements detailed budgets
- The school successfully accesses and leverages a variety of resources (e.g., grants, title funds)
- The school manages time effectively in order to maximize focus on instruction
- The school appropriately directs the use of technology to improve teaching and learning
- The school provides adequate training for the instructional technology teachers are expected to use

**Examples of Evidence:**

- **Few, if any, incidents occur in which students' safety is compromised**
- **Few, if any, incidents occur in which rules and procedures are not followed**
- **Surveys of faculty and staff indicate high agreement that the school is safe and orderly**
- **Surveys of students, parents, and community indicate high agreement that the school is safe and orderly**
- **Surveys of faculty and staff indicate high agreement that they have input into the well functioning of the school**
- **Surveys of students, parents, and community indicate high agreement that they have input into the well functioning of the school**
- **Evidence is available regarding specific decisions that were made with input from faculty and staff**

- **Evidence is available regarding specific decisions that were made with input from students, parents, and the community**
- **Evidence is available for specific projects that were developed through collaborative efforts of teacher teams**
- **Materials and resources for specific classes and courses meet the state or district specifications for those classes and courses**
- **Time available for specific classes and courses meets the state or district specifications for those classes and courses**
- **Evidence is available that adequate proportions of the school budget are focused on issues that directly support teaching and learning**
- **Evidence is available that specific accomplishments of the school and/or individuals within the school have been formally acknowledged**
- **Incidents indicating teacher dissatisfaction with the school (e.g., teacher requests for transfers to other schools) are very low or nonexistent**

## Level 2: An Instructional Framework That Develops and Maintains Effective Instruction in Every Classroom

**Effective Practices:**

**(1) The school communicates a clear vision as to how instruction should be addressed in the school.**

*Examples:*

- A written document articulating the school-wide model of instruction is developed with input by teacher leaders
- Professional development opportunities are provided for new teachers regarding the school-wide model of instruction
- When asked, teachers can describe the major components of the school-wide model of instruction
- New initiatives are prioritized and limited in number to support the instructional model
- The school-wide language of instruction is used regularly in faculty and department meetings
- The school-wide language of instruction is used regularly by faculty in their informal conversations
- The school-wide language of instruction is used regularly by faculty in their professional learning communities

**(2) Support is provided to teachers to continually enhance their pedagogical skills through reflection and professional growth plans.**

*Examples:*

- Individual teachers have written statements of their pedagogical growth goals
- Individual teachers keep track of their progress on their pedagogical growth goals
- The school leader meets with teachers regarding their growth goals
- When asked, teachers can describe their progress on their pedagogical growth goals
- The school hires effective teachers
- The school has a system in place to effectively evaluate the selection process for hiring new teachers
- The school has a system in place to effectively evaluate and revise the new teacher induction program
- The school retains effective teachers
- When asked, the school can produce evaluation results, growth plans, and supports for struggling teachers

**(3) Predominant instructional practices throughout the school are known and monitored.**

*Examples:*

- Walk-through data are aggregated in such a way as to disclose predominant instructional practices in the school
- When asked, the school leader can describe the predominant instructional practices in the school
- When asked, teachers can describe the predominant instructional practices in the school
- The school provides forthright feedback to teachers regarding their instructional practices
- The school leader can describe effective practices and problems of practice

**(4) Teachers are provided with clear, ongoing evaluations of their pedagogical strengths and weaknesses that are based on multiple sources of data and are consistent with student achievement data.**

*Examples:*

- Highly specific rubrics are in place to provide teachers accurate feedback on their pedagogical strengths and weaknesses
- Teacher feedback and evaluation data is based on multiple sources of information including, but not limited to: direct observation, teacher self-report, analysis of teacher performance as captured on video, student reports on teacher effectiveness, and peer feedback to teachers
- Teacher evaluation data are regularly used as the subject of conversation between school leaders and teachers
- The school provides frequent observations and feedback to teachers
- When asked, teachers can describe their instructional strategies that have the strongest and weakest relationships to student achievement

**(5) Teachers are provided with job-embedded professional development that is directly related to their instructional growth goals.**

*Examples:*

- Online professional development courses and resources are available to teachers regarding their instructional growth goals
- Teacher-led professional development is available to teachers regarding their instructional growth goals
- Instructional coaching is available to teachers regarding their instructional growth goals
- Data is collected linking the effectiveness of professional development to the improvement of teacher practices
- When asked, teachers can describe how the professional development supports their attainment of instructional growth goals

**(6) Teachers have opportunities to observe and discuss effective teaching.**

*Examples:*

- Teachers have opportunities to engage in instructional rounds
- Teachers have opportunities to view and discuss video-based examples of exemplary teaching
- Teachers have regular times to meet and discuss effective instructional practices (e.g., lesson study)
- Teachers have opportunities to interact about effective teaching via technology
- Instructional practices are regularly discussed at faculty and department meetings
- Video segments of instructional practices are regularly viewed and discussed at faculty and department meetings
- Information is available regarding participation of teachers in opportunities to observe and discuss effective teaching
- Information is available regarding teacher participation in virtual discussions regarding effective teaching

**Examples of Evidence:**

- **A document describing the school's instructional model is available**
- **Survey data indicate that teachers are well aware of the school's instructional model and their status within that model**
- **Evidence exists that the school has a demonstrated record of hiring and retaining effective teachers**
- **Evidence is available that teacher growth in pedagogical skill is consistent and meets or exceeds acceptable levels**
- **Evidence is available that teacher growth in pedagogical skill is related to the professional development opportunities provided by the school**
- **Evidence is available that the average level of teacher pedagogical skill meets or exceeds acceptable levels**
- **Evidence is available that any teacher who is below acceptable levels of pedagogical skill and/or growth is adhering to a detailed growth plan**
- **The distribution of teachers' pedagogical status is consistent with measures of student growth within the school**
- **Survey data indicate high levels of agreement that the school in general and the evaluation system in particular are designed to help teachers improve their pedagogical skills**
- **Evidence exists that teachers who have demonstrated little or no desire to develop or maintain high levels of pedagogical skill are counseled out of the profession or terminated in extreme cases**

## Level 3: An Essential Curriculum Focused on Enhancing Student Learning

**Effective Practices:**

**(1) The school curriculum and accompanying assessments adhere to state and district standards.**

*Examples:*
- The written curriculum is analyzed to ensure that it correlates with state and district standards (e.g., Common Core if applicable)
- The written curriculum adequately addresses important 21st century skills (e.g., College and Career Readiness Skills and Mathematical Practice Skills from the Common Core State Standards)
- The curriculum taught in the classrooms (i.e., the taught curriculum) is analyzed to ensure that it correlates with the written curriculum
- Assessments have been analyzed to ensure that they accurately measure the written and taught curriculums
- School teams regularly analyze the relationship between the written curriculum, taught curriculum, and assessments
- When asked, teachers can describe the essential content and standards for their subject area(s) or grade level(s)

**(2) The school curriculum is focused enough that it can be adequately addressed in the time available to teachers.**

*Examples:*
- Essential elements of content are identified
- How much time it would take to adequately address the essential elements is examined
- Teams regularly meet to discuss the progression and viability of documents that articulate essential content and timing of delivery (e.g., pacing guides, curriculum maps)
- Essential vocabulary is identified at all levels (i.e., tiers 1, 2, and 3)

**(3) All students have the opportunity to learn the critical content of the curriculum.**

*Examples:*
- Tracking systems are in place that examine each student's access to the essential elements of the curriculum
- Parents are aware of their child's current access to the essential elements of the curriculum
- All students have access to advanced placement courses
- The extent to which all students have access to necessary courses has been analyzed
- The school ensures teachers have completed appropriate content area training in their subject area courses
- A system of direct vocabulary instruction is available at all levels (i.e., tiers 1, 2, and 3)

**(4) Clear and measurable goals are established and focused on critical needs regarding improving overall student achievement at the school level.**

*Examples:*

- Goals are established as a percentage of students who will score at a proficient or higher level on state assessments or benchmark assessments
- Goals are established for eliminating differences in achievement for students at different socioeconomic levels
- Goals are established for eliminating differences in achievement for students of differing ethnicities
- School-wide achievement goals are posted so that faculty and staff see them on a regular basis
- School-wide achievement goals are discussed regularly at faculty and staff gatherings
- Faculty and staff can describe the school-wide achievement goals
- Faculty and staff can explain how goals eliminate differences in achievement for students of differing ethnicities
- Faculty and staff can explain how goals eliminate differences in achievement for students at different socioeconomic levels, English language learners, and students with disabilities
- Improvement goals are assigned to various departments and faculty
- Goals are established for eliminating the achievement gap for all students
- Goals are established for eliminating the differences in achievement for English language learners
- Goals are established for eliminating the differences in achievement for students with disabilities
- Goals address the most critical and severe deficiencies
- Timelines contain specific benchmarks for each goal, including individual(s) responsible for the goal

**(5) Data are analyzed, interpreted, and used to regularly monitor progress toward school achievement goals.**

*Examples:*

- Overall student achievement is regularly analyzed
- Student achievement is examined from the perspective of value-added results
- Results from multiple types of assessments are regularly reported and used (e.g., benchmark, common assessments)
- When asked, faculty and staff can describe the different types of reports available to them
- Reports, graphs, and charts are regularly updated to track growth in student achievement
- School leadership teams regularly analyze school growth data
- Data briefings are conducted at faculty meetings

**(6) Appropriate school-level and classroom-level programs and practices are in place to help students meet individual achievement goals when data indicate interventions are needed.**

*Examples:*

- Extended school day and week programs are in place
- Extended school year programs are in place
- After-school programs are in place
- Tutorial programs are in place
- The school schedule is designed so that students can receive academic help while in school
- Individual student completion of programs designed to enhance their academic achievement is monitored (i.e., gifted and talented, advanced placement, STEM, etc.)
- Response to intervention measures and programs are in place
- Enrichment programs are in place

**Examples of Evidence:**

- **Curriculum documents are in place that correlate the written curriculum to state and district standards (e.g., Common Core if applicable)**
- **Curriculum documents are in place correlating the written curriculum to the skills important to 21st century learning (e.g., College and Career Readiness Skills and Mathematical Practice Skills from the CCSS)**
- **Information is available correlating what is taught in the classrooms (i.e., the taught curriculum) and the written curriculum**
- **Information is available examining the extent to which assessments accurately measure the written and taught curriculums**
- **A written list of essential elements is in place**
- **A written list of essential vocabulary is in place for all levels (i.e., tiers 1, 2, and 3)**
- **A curriculum audit document is in place delineating how much time it would take to adequately address the essential elements**
- **All students have a prescribed program of study that documents access to courses**
- **Written goals are available specifying the percentage of students who will score at a proficient or higher level on state assessments or benchmark assessments**
- **Written goals are available specifying the elimination of differences in achievement for students at different socioeconomic levels**
- **Written goals are available specifying the elimination of differences in achievement for students of differing ethnicities**
- **Written goals are available specifying the elimination of the achievement gap for all students**
- **Written goals are available specifying the elimination of differences in achievement for English language learners**

- **Written goals are available specifying the elimination of differences in achievement for students with disabilities**
- **Written timelines are available containing specific benchmarks for each goal, including individual(s) responsible for the goal**
- **Reports, graphs, and charts are available for overall student achievement**
- **Evidence is available showing that reports, graphs, and charts are regularly updated to track growth in student achievement**
- **Evidence is available that students who need instructional support outside of the regular classroom have had access to and taken advantage of such support**

## Level 4: A Standards-Referenced System of Reporting Student Progress

**Effective Practices:**

**(1) Clear and measurable goals are established and focused on critical needs regarding improving achievement of individual students within the school.**

*Examples:*

- Goals are established for each student in terms of their performance on state assessments, benchmark assessments, or common assessments
- Essential elements for each subject area are articulated in terms of clear learning progressions or scales (i.e., rubrics)
- Goals accompanied by proficiency scales are established for each student in terms of their knowledge gain regarding the essential elements in each subject area
- When asked, students are aware of their status on the achievement goals specific to them
- Students keep data notebooks regarding their individual goals
- When asked, parents are aware of their child's achievement goals
- Student-led conferences focus on the individual student's goals
- Parent-teacher conferences focus on the individual student's goals
- Students perceive that their individual goals are academically challenging

**(2) Data are analyzed, interpreted, and used to regularly monitor progress toward achievement goals for individual students.**

*Examples:*

- The status and growth of individual students is regularly analyzed
- When asked, individual students and their parents can describe their achievement status and growth
- Individual student achievement is examined from the perspective of value-added results
- Individual student results from multiple types of assessments are regularly reported and used (e.g., benchmark, common assessments)
- When asked, faculty can describe the different types of individual student reports available to them
- Individual student reports, graphs, and charts are regularly updated to track growth in student achievement
- Teachers regularly analyze school growth data for individual students
- School leadership teams regularly analyze individual student performance

**Examples of Evidence:**

- **Written goals are available for each student in terms of their performance on state assessments, benchmark assessments, or common assessments**
- **Documents articulating the learning progression for each essential element are available for each subject area**
- **Written goals are available for each student in terms of their knowledge gain regarding essential elements**
- **Reports, charts, and graphs are available for individual students depicting their status and growth on their learning goals**
- **Report-cards display student status and growth on essential elements and individual learning goals**

## Level 5: A Competency-Based System That Ensures Student Mastery of Content

**Effective Practices:**

**(1) Students move on to the next level of the curriculum for any subject area only after they have demonstrated competence at the previous level.**

*Examples:*
- Clear criteria are established for each essential element regarding minimum scores that demonstrate competence
- A system is in place that tracks each student's status on the essential elements for each subject area at the student's current level
- Student status and progress for each essential element in each subject area is continually monitored
- When students reach criterion scores for the essential elements at a particular level within a subject area, they immediately start working on the elements at the next level

**(2) The school schedule is designed to accommodate students moving at a pace appropriate to their backgrounds and needs.**

*Examples:*
- Grade levels are replaced by competency levels
- Multiple venues are available simultaneously (e.g., at the same time) for students to learn and demonstrate competency in the essential elements for each level of each subject area
- Online competency-based instruction and assessment is available in the essential elements for each level of each subject area
- The time it takes for students to move through the various levels of the curriculum for each subject area at each level is constantly monitored

**(3) Students who have demonstrated competency levels greater than those articulated in the system are afforded immediate opportunities to begin work on advanced content and/or career paths of interest.**

*Examples:*
- Students who have demonstrated the highest level of competence within a given subject area are provided with opportunities for even more advanced study within that subject area
- Students who have demonstrated competence adequate for high school graduation begin and receive credit for college work
- Students who have demonstrated competence adequate for high school graduation begin and receive credit for work toward a trade that is of interest to them

**Examples of Evidence:**

- **A written master plan is available articulating the criterion scores necessary to demonstrate competence for each essential element at each level for each subject area**
- **Reports are available that indicate each student's current status for each essential element at each level for each subject area**
- **A written master plan is available articulating the alternate pathways a student might take to learn and demonstrate competence in each essential element at each level for each subject area**
- **A written master plan is available articulating how students can pursue advanced content, work on college credit, and pursue careers of interest**
- **Reports are available depicting how long students are taking to move through the curriculum for each subject area at each level**

# RESEARCH-BASED RESOURCE ALLOCATION

If we are to see improvement in education in Wyoming and realize the goals of this legislation, schools must be focused on doing what works best in education.

According to the 2002-2007 U.S. Department of Education, Strategic Plan - Goal 4:

> Unlike medicine, agriculture and industrial production, the field of education operates largely on the basis of ideology and professional consensus. As such, it is subject to fads and is incapable of the cumulative progress that follows from the application of the scientific method and from the systematic collection and use of objective information in policy making. We will change education to make it an evidence-based field. (USDE, 2002)

The winds are shifting, but no state has completely made the transition to research-based, scientific methods of instruction.  Wyoming's competitive advantage over the rest of the nation lies in the ability to mobilize resources and move quickly. Wyoming can lead the effort nationally by moving rapidly from discussion to practice.

The work of John Hattie, director of the Melbourne Research Center at the University of Melbourne, Australia was suggested as the research source by REL Central in Denver, CO.  The results of 15 years of study and over 800 meta-analyses of research are included in the books Visible Learning (Hattie, Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement, 2009) and Visible Learning for Teachers.  (Hattie, Visible Learning for Teachers: Maximizing Impact on Learning, 2012) Hattie uses a measure called effect size, which is a way of measuring the difference between two groups or the impact of a particular practice over time.

The basic premise is that almost anything will increase student achievement if the bar is set at zero.  Hattie's research of the influences on achievement shows an average effect size of 0.40. In order to have above average achievement, the school and the teachers must implement strategies that have an effect size above 0.40.  According to Hattie, the difference between 0.40 and 0.20 is huge, but strategies related to influences within a few points of 0.40 may still be quite effective.  Both Hattie and Marzano encourage the use of 0.40 as a guideline and not an absolute. Effect sizes can be combined and averaged in a manner that makes sense from an instructional standpoint.  Taken a step further, effect size can be calculated for schools, classes and individual students.  According to Hattie, the average year growth should also measure 0.40 for all three.

At an international conference in Denver, CO in June, 2012, Hattie stated, "Doing more average things won't lead to above average achievement… greater than average achievement is a lot harder than simply making gains"  According to Hattie, regardless of whether they are low or high performing, individual schools, classes and students should all be making progress.

According to Hattie, "the greatest source of variance in our system relates to teachers". (Hattie, 2009, p. 22)  The variance between teachers within a school is often a greater concern the school itself. Hattie contends when people say it is "teachers who make the difference" the message is oversimplified in that some teachers have a far higher positive impact on students than others.  According to Hattie, "While we may wish to believe that all of our teachers are excellent, this is not always the view of those who have been their students… the differences between high-effect and low-effect teachers are primarily related to the attitudes and expectations that teachers have when they decide on the key issues of teaching – that is, what to teach and at what level of difficulty, and their understandings of progress and of the effects of their teaching." (Hattie, 2012, pp. 22-23)

Marzano recommends using the 0.40 effect size as a point of discussion and not an absolute cut point.  He says that it is important to remember that all of these lead to increased achievement and if the lower effect size practices are not expensive or difficult to implement there is no reason to discontinue them.

Hattie does not advocate using the 0.40 effect size as a cut point to make decisions, either. He promotes using research to influence the discussion and inform policy and practice.   The goal is to focus on high influence activities that lead to student achievement, not to eliminate all of the low influence activities.  An example is reducing class size.  Reducing class size alone leads to moderate increases in student achievement, even if there is no improvement in instruction.  However, the reason for reducing class size is to increase feedback, enrichment, teacher-student relations and other high-influence activities.  Decreasing class size makes far more difference if it is linked to improved instruction. According to Hattie, the question after analyzing the research should be "So what, now what?"

The WDE suggests carefully reading the research in Visible Learning and discussing it in collaborative teams, rather than drawing conclusions based solely on the title of the category.  For example, Student-Centered Teaching has an effect size of 0.54 and Student Control over Learning has an effect size of 0.04.  Being certain the practice implemented in the classroom is the first and not the second requires study and discussion rather than making assumptions of what the research says based on the category title.

**THE INFLUENCES ON ACHIEVEMENT**

# CURRICULA

**READING PROGRAMS - Implementing curricular improvements in reading**

- Repeated reading                          0.67
- Vocabulary instruction                     0.67
- Comprehension instruction                  0.60
- Visual-perception                          0.55
- Phonics instruction                        0.54
- Second/third chance                        0.50
- Writing instruction                        0.44
- Exposure to reading                        0.42
- Drama/arts                                 0.35
- Sentence combining instruction             0.15
- Whole language                             0.06

**MATH AND/OR SCIENCE PROGRAMS - Implementing curricular improvements in Mathematics and/or Science**

- Science Instruction                        0.42
- Mathematics Instruction                    0.40
- Use of Calculators                         0.27

**OTHER CURRICULA - Implementing other curricular improvements and initiatives**

- Creativity programs on achievement         0.65
- Tactile stimulation instruction            0.58
- Outdoor/adventure instruction              0.52
- Play instruction                           0.50
- Integrated curricula instruction           0.39
- Social skills instruction                  0.39
- Career interventions                       0.38
- Bilingual instruction                      0.37
- Values/moral education instruction         0.24
- Extra-curricular activities                0.19
- Perceptual-motor instruction               0.08

# TEACHER

**TEACHER - Improving teacher professional knowledge and behavior as it relates to student achievement**

- Teacher credibility                           0.90
- Microteaching                                 0.88
- Teacher clarity                               0.75
- Teacher-student relationships                 0.72
- Not labeling students                         0.61
- Professional development                      0.51
- Quality of teaching                           0.48
- Teacher expectations                          0.43
- Teacher effects                               0.32
- Teacher verbal ability                        0.22
- Teacher education                             0.12
- Teacher subject matter knowledge              0.09

# TEACHING APPROACH

**SCHOOL-WIDE STRATEGIES - Improving school-wide teaching strategies and interventions**

- Response to Intervention                      1.07
- Classroom discussion                          0.82
- Comprehensive interventions
  for learning disabled students                0.77
- Student centered teaching                     0.54
- Comprehensive teaching reforms                0.22
- Co-teaching/team teaching                     0.19

**TEACHING STRATEGIES - Improving the teaching approach and skills of individual teachers**

- Reciprocal Teaching                           0.74
- Teaching strategies                           0.62
- Problem-solving teaching                      0.61
- Cooperative vs. individualistic learning      0.59
- Direct Instruction                            0.59
- Cooperative vs. competitive learning          0.54
- Cooperative learning                          0.42
- Adjunct aids                                  0.37
- Various teaching on creativity                0.34
- Inductive teaching                            0.33
- Inquiry-based teaching                        0.31
- Competitive vs. individualistic learning      0.24
- Problem-based learning                        0.15

**FEEDBACK - Providing and improving specific feedback between teachers and students**

- Providing formative evaluation        0.90
- Feedback                              0.75
- Questioning                           0.48
- Frequency/effects of testing          0.34
- Teaching test taking and coaching     0.27
- Teacher immediacy                     0.16

**SUCCESS CRITERIA - Helping students understand the criteria for success for individual assignments**

- Mastery learning                      0.58
- Worked examples                       0.57
- Keller's Master Learning              0.53

**LEARNING INTENTIONS - Developing clear learning objectives and helping students to understand their own goals in relation to the objectives**

- Concept mapping                       0.60
- Goals                                 0.50
- Behavioral organizers/adjunct questions   0.41
- Learning hierarchies                  0.19

**META-COGNITIVE SELF-REGULATED LEARNING - Teaching students in a manner that develops higher order thinking skills and teaches them to regulate their own learning**

- Meta-cognitive strategies (Higher Order Thinking or Critical Thinking      0.69
- Self-verbalization/self-questioning   0.64
- Study skills                          0.63
- Individualized instruction            0.22
- Aptitude-treatment interactions       0.19
- Matching style of learning            0.17
- Student control over learning         0.04

**USING TECHNOLOGIES - Using technology in a manner that increases student achievement**

- Interactive video methods             0.52
- Computer-assisted instruction         0.37
- Simulations                           0.33
- Programmed instruction                0.23
- Visual/audio-visual methods           0.22
- Web-based learning                    0.18

**STUDENT PERSPECTIVES IN LEARNING - Changing student's perspectives on their own learning**

- Spaced vs. mass practice          0.71
- Peer tutoring          0.55
- Time on task          0.38
- Mentoring          0.15

**OUT OF SCHOOL LEARNING - Modifying processes and policies as they relate to out of school learning**

- Homework          0.29
- Home-schooling          0.16
- Distance Education          0.11

# SCHOOL

**ATTRIBUTES OF SCHOOL - Modifying processes as they relate to, finances, calendars, timetables, etc.**

- School effects          0.48
- Finances          0.23
- Changing school calendars/timetables          0.09

**CLASSROOM COMPOSITION EFFECTS - Modifying classroom composition including small group learning, volunteer tutors, mainstreaming, class size, etc.**

- Small group learning          0.49
- Volunteer tutors          0.26
- Mainstreaming          0.24
- Class size          0.21
- Within-class grouping          0.18
- Ability grouping          0.12
- Multi-grade/multi age classes          0.04
- Open vs traditional          0.01
- Retention          -0.13

**CLASSROOM INFLUENCES - Improving classroom behavior, cohesion, management and peer influences**

- Classroom behavioral          0.68
- Classroom cohesion          0.53
- Peer influences          0.53
- Classroom management          0.52
- Decreasing disruptive behavior          0.34

**CURRICULA FOR GIFTED STUDENTS - Improving processes for acceleration and enrichment for gifted students**

- Acceleration                                   0.68
- Enrichment                                     0.39
- Ability grouping for gifted                     0.30

**SCHOOL COMPOSITION EFFECTS - Maintaining effective principals/school leaders, systems accountability,  etc.**

- School size                                    0.43
- Principals/school leaders                       0.39
- Systems accountability                          0.31
- Out of school curricular experiences            0.09
- Summer Vacation                                -0.02
- Mobility                                       -0.34

**TYPES OF SCHOOLS - Implementing desegregation, religious schools, charter schools, etc.**

- Desegregation                                  0.28
- Religious Schools                               0.23
- Summer school                                  0.23
- Charter Schools                                0.20

# STUDENT

**PRE-SCHOOL EXPERIENCES - Improving early intervention and pre-school programs**

- Early Intervention                             0.47
- Pre-school                                     0.45

**PHYSICAL INFLUENCES - Addressing student's physical influences that impact achievement such as psychotherapy, drugs, ethnicity, exercise, lack of illness, school counseling, etc.**

- Pre-term birth weight                          0.53
- Psychotherapy programs                         0.38
- Drugs                                          0.32
- Ethnicity                                      0.32
- Exercise/relaxation                            0.28
- Lack of Illness                                0.25
- School Counseling effects                      0.18
- Diet                                           0.12
- Gender                                         0.12
- Ethnic diversity of students                   0.05

**BACKGROUND - Improving early intervention and pre-school programs**

- Self-report grades/Student expectations    1.44
- Piagetian stages of development    1.28
- Prior achievement    0.65
- Creativity related to achievement    0.35

**ATTITUDES AND DISPOSITION - Addressing student concentration/persistence/engagement, motivation and self-concept**

- Concentration/persistence/engagement    0.48
- Motivation    0.48
- Self-Concept    0.47
- Reducing Anxiety    0.40
- Attitudes to math and science    0.35
- Personality    0.18

# HOME

**HOME - Addressing issues related to home environment, socioeconomic status, parental involvement, etc.**

- Home Environment    0.52
- Socioeconomic Status    0.52
- Parental Involvement    0.49
- Home Visiting    0.29
- Family Structure    0.18
- Welfare Policies    -0.12
- Television    -0.18

# STATEWIDE PROFESSIONAL DEVELOPMENT

Based on the WAEA support requirements and the school improvement plan requirements (included as a separate document), the emphasis of WDE professional development will be the WDE support priorities defined on page 4.  These are:

**FOCUS** - Growing all Wyoming students in literacy and numeracy

**STRUCTURE –** Implementing a high reliability, evidence-based system

**RESOURCE ALLOCATION –** Promoting research-based methods for resource allocation

**COLLECTIVE RESPONSIBILITY -** Assuring that all Wyoming students are making progress.  This includes decisive intervention for students in need and acceleration for high achieving students

**SHARED PRACTICE -** Sharing effective practices with professional educators and policy makers statewide

## Statewide Collaboration

The Wyoming Comprehensive Accountability Framework: Phase I suggests the following:

> One approach, that could be done regionally or at the state level, would involve creating networks of schools and districts interested in working on a particular issue or challenge. The Body of Evidence (BOE) Activities Consortium serves as one stellar example of a network of districts that came together to produce an important set of products, but more importantly, to increase the learning of the participants by doing the work! (Marion, January 31, 2012)

Teachers, leaders and WDE staff that were involved in this project or teaching in the state at the time recognize the effectiveness of this approach to developing educator capacity and sharing effective practices. This type of networking and collaboration will form the foundation of support provided by the WDE.

This approach aligns closely with the research on effective professional development.   The WDE summary of the research is that professional development is most likely to lead to increased student achievement when it is sustained and ongoing around specific topics, makes appropriate use of external expertise, engages teachers, challenges teacher conceptions about curriculum and which groups of students learn better than others, includes teachers talking to teachers, and has continued support of leadership.  And, it is more effective when it includes a combination of high school and elementary teachers.

**Networking through Professional Organizations**

Historically, professional organizations were a source of extensive professional development and networking in Wyoming. These organizations provided opportunities for educators to share effective practices and collaborate with other professionals in their grade-level, subject area or position.   This focus on sharing and collaboration through professional organizations has shifted to an emphasis on district and school-level strategies to meet state and federally mandated requirements.

Opportunities exist for professional collaboration among teachers of the same grade level and within subject areas in districts with the largest populations.  However, teachers in rural communities are often the only teacher for a grade level or for a specific subject. Their primary opportunity for peer-to-peer interaction in the past was through professional organizations. However, these organizations have become ineffective in many cases in Wyoming as a capacity building mechanism. State-level professional organizations exist for nearly all education professionals in Wyoming.   The WDE will support professional organizations through recognition of their importance, WDE attendance at meetings and assistance with planning professional development.

**AdvancED School Improvement Conference**

The AdvancED School Improvement Conference has a 20-year history of providing Wyoming educators with hands-on practical applications of best practices in the classroom. Presentations focus on improving student learning in all content areas, closing the achievement gap in student subgroups, and implementing cross-curricular improvement efforts.

**Current WDE Professional Development**

The WDE dramatically increased the amount of professional development provided by the agency in anticipation of and in response to the WAEA.  Future professional development will be aligned to the WDE support priorities defined on page 4.  The professional development offered by the WDE in 2011-2012 was as follows:

# WDE Professional Development

## 2011-12

### Literacy and Numeracy Trainings and Workshops

| Event | Dates/Location | Rationale & Methodology | Audience | Measure |
|---|---|---|---|---|
| **3+8 = Reading Success** Instructor Training | August 2011 in Cheyenne and Casper | In January 2011, Technical Assistance Committee (TAC) member, Jim Popham encouraged full implementation of instructionally supportive component of PAWS reading by the WDE | Ten Wyoming teachers interested in facilitating reading workshops across the state | PAWS |
| **3+8 = Reading Success Workshops** | August 2011 – November 2011 in the following locations:<br>• Casper<br>• Cody<br>• Riverton<br>• Pinedale<br>• Evanston<br>• Afton<br>• Newcastle<br>• Torrington<br>• Rock Springs<br>• Rawlins<br>• Jackson<br>• Sheridan<br>• Gillette<br>• Cheyenne<br>• Buffalo<br>• Laramie<br>• Douglas<br>• Wheatland | Teacher training in PAWS reading design; implementation of instructionally supportive components of PAWS reading; practice designing and scoring constructed responses | Open to all Wyoming teachers. Over 2000 Wyoming teachers participated in the 3+8 = Reading Success Workshops | PAWS |
| **Special Education Literacy (SpLit) Workshops** with online class as follow up | December 2011 – February 2012 in the following locations:<br>• Casper<br>• Riverton<br>• Gillette<br>• Rawlins<br>• Rock Springs<br>• Torrington<br>• Cheyenne | Examination of schools in improvement for IEP student subgroup showed need to improve reading and writing processes | Open to all Wyoming special education and classroom teachers. Over 350 Wyoming teachers participated in the Special Education Literacy (SpLit) Workshops | PAWS |

| | | | | |
|---|---|---|---|---|
| **ACT Preparation and College Readiness Workshops** | February 2012 – August 2012 in the following locations: <br>• Casper<br>• Riverton<br>• Gillette<br>• Rock Springs | Gear Up wanted to collaborate with ACT preparation training | High school content teachers in English, reading, social studies, science and math | ACT |
| **Increasing Achievement of Under-Resourced Learners** (Ruby Payne training) <br><br>**3+8=Reading Success** for Instructional Facilitators and Bridges | April 2012 training for teacher trainers <br><br>May 2012 Conference in Casper | Gear Up wanted to collaborate with Instructional Facilitator training for Summer School | Instructional Facilitators and selected Bridges Summer School Teachers– delivered in Casper and then four on-site volunteer Summer School programs | PAWS and Criterion Referenced pre and post tests |
| **WY Figures Common Core Math Workshops** | May 2012 – present in the following locations: <br>• Cheyenne<br>• Ft. Washakie<br>• Sheridan<br>• Casper<br>• Rock Springs<br>• Jackson<br>• Riverton<br>• Laramie<br>• Gillette<br>• Wheatland<br>• Rawlins | Teacher training on new Wyoming math standards (Common Core State Standards) | Open to all Wyoming math teachers | PAWS |
| **Wyoming Writing Project Workshops** | June 2012- August 2012 in the following locations: <br>• Riverton<br>• Newcastle<br>• Cody<br>• Laramie<br>• Casper<br>• Gillette | University of Wyoming wanted to collaborate with the Wyoming Writing Project federal grant | Open to all Wyoming teachers | PAWS |

| | | | | |
|---|---|---|---|---|
| **Common Core Reading and English Language Arts Workshops** with online class as follow up | October 2012– present in the following locations: <ul><li>Torrington</li><li>Gillette</li><li>Green River</li><li>Casper</li><li>Laramie</li><li>Powell</li><li>Rawlins</li></ul> | Teacher training on new Wyoming English Language Arts standards (Common Core State Standards) | Open to all Wyoming elementary teachers and secondary English Language Arts teachers | PAWS |
| **SpLit Plus** with online class as follow up | October 2012 – present in the following locations: <ul><li>Casper</li><li>Cheyenne</li><li>Riverton</li><li>Gillette</li></ul> | Special Education teachers from around the state asked for additional training similar to the SpLit training started in 2011 | | |
| **ELL Literacy Assessment Success Workshops** | January 2013 – February 2013 in the following locations: <ul><li>Rawlins</li><li>Gillette</li><li>Rock Springs</li><li>Casper</li></ul> | ELL teachers began contacting the WDE asking for training similar to SpLit and 3+8, but with emphasis on English language learners | Open to all Wyoming ELL education and classroom teachers | PAWS<br><br>ACCESS for ELLs |

**Conferences**

| Event | Date | Rationale & Methodology | Audience | Measure |
|---|---|---|---|---|
| **Wyoming Association of Career Technical Education (CTE) Conference –** Training in WYR | June 2011 | To engage CTE instructors in understanding reading levels and strategies for intervention | 50-75 Career Technical Education Teachers | Jerry Johns Basic Reading Inventory was the suggested measure |
| **2011 Leadership Symposium** | July 2011 | Breakout sessions on 3+8 constructed responses, reading, and writing | Open to all Wyoming special education teachers | PAWS |
| **WDE Summer Camp 2011** | August 2011 in Casper | Keynote Speakers: Popham, Allington, Mikaelson  Breakout sessions on literacy; 3+8 Reading | Open to all Wyoming teachers and administrators | PAWS |
| **WY DOC Conference** | September 2011 | Literacy | Members of the Wyoming Department of Corrections | GED PAWS |
| **2nd Annual Native American Education Conference** | October 2011 in Lander | Breakout sessions on Balanced Literacy Framework | Open to all Wyoming teachers | |
| **School Improvement Grant Recipient Conference** | April 2012 in Casper | Topics discussed included Family Engagement, Turning Around Middle Schools, SIG Online Training Tool, Meaningful Extended Learning Time | Superintendents, principals, teachers of SIG schools | |
| **Special Programs RtI Conference** | May 2012 | District psychologists and special programs teachers met to discuss RtI model | Special programs teachers | PAWS |
| **3rd Annual First People's Center for Education** | June 2012 in Sheridan | Information on Math Recovery | WDE staff | PAWS |
| **2012 Leadership Symposium** | June 2012 in Lander | Breakout sessions on constructed responses, reading, and writing | Open to all Wyoming special education teachers | PAWS |
| **9th Annual WYPEC Conference** | August 2012 in Casper | Training in writing process | Open to all Wyoming paraprofessionals | PAWS |

| | | | | |
|---|---|---|---|---|
| **WDE Summer Camp 2012** | August 2012 in Casper | Keynote Speakers: Paulsen, Schubert, Marzano<br><br>Breakout sessions on formative assessment, Balanced Literacy Framework, 3+8 Reading overview<br><br>Breakout sessions on math literacy | Open to all Wyoming teachers and administrators | PAWS |
| **Literacy Summit** | October 2012 in Casper | Keynote Speakers: Beers and Probst followed by breakout sessions | Open to all Wyoming teachers | PAWS ACT |

## WDE Internal Staff Training

| Event | Dates | Rationale & Methodology | Audience |
|---|---|---|---|
| **WYR training** | Fall 2011 | WYR training on site at Arapaho | SSOS staff |
| **SpLit for WDE Special Education staff** | November 2011 | Provided overview of BLF, Writer's Workshop, Reader's Workshop, and 3+8 | WDE Special Education staff and teacher trainers from across the state |
| **WYR overview** | Spring 2011 | Provided overview of WYR protocol | WDE staff |
| **Guided Reading overview** | Spring 2011 | Watched guided reading video and debriefed components | WDE staff |
| **3+8 Overview** | March 2012 | | WDE new hires |
| **Literacy for Special Programs** | April 2012 | Provided overview of BLF, Writer's Workshop, Reader's Workshop, and 3+8 | WDE Special Education staff |
| **Wyoming Writing Project Workshop** | October 2012 | Immerse WDE staff in the writing process | WDE Learning Team |

## Learning Advisory Board

| Event | Dates | Rationale & Methodology | Audience |
|---|---|---|---|
| **Dissemination of 7 Commitments** | April 2011 | Posters, press release, memo, handout | |
| **Sheridan Invitational** | June 2011 | Field trip to view best practice | WDE |
| **Sheridan Sharing in Arapaho** | September 2011 | Speaker and Conversation | WDE, WEN |
| **LAB Convocation** | December 2011 | Collegial Conversation | |

## Intensive Wyoming Student Support

| Event | Date | Rationale & Methodology | Audience | Measure |
|---|---|---|---|---|
| **Arapahoe Reading Support**<br>• Training in WYR via WEN<br>• Delivery of instruction | August 2011 – May 2012 | Two State System of Support coaches delivered daily structured support and modeling as well as weekly training | 200+ Arapahoe students tutored daily;<br><br>Paraprofessionals, teachers, WDE personnel | PAWS<br>Jerry Johns Basic Reading Inventory |

**School Specific Requests**

| Event | Date | Rationale & Methodology | Audience | Measure |
|---|---|---|---|---|
| **Special Education Professional Development** | May 2011 | | Laramie 1 | PAWS |
| **3+8 = Reading Success Workshops for specific sites** | August 2011 through January 2012 | Teacher training in PAWS reading design; implementation of instructionally supportive components of PAWS reading; practice designing and scoring constructed responses | Fremont 14 Greybull Powell Big Piney Gillette Green River Worland Ft. Washakie Fremont 25 | PAWS |
| **WYR overview for specific sites** | October 2011 – present | Provided overview of WYR protocol | Casper Big Piney | PAWS ACT |
| **WY Figures Common Core Math Workshops** | May 2012 – present | Teacher training on new Wyoming math standards (Common Core State Standards) | Pine Bluffs Buffalo Pinedale Star Valley Basin district Natrona County | PAWS |
| **ACT PREP for specific sites** | August 2012 – present | New state test for 11th grade | Douglas Greybull Lovell Wyoming Indian Middle School | ACT |
| **Balanced Literacy** | August 2012 | WDE was asked to provide professional development after individuals attended Writing Workshop and 2012 Summer Camp breakout sessions | Cathedral Home in Laramie | PAWS ACT |

# WDE REPRESENTATIVES

**Requirements of WAEA for Representatives**

- The representatives are liaisons between WDE and school district leadership
- The representatives can be employees of the WDE or the school district or a combination of both
- There may be more than one representative per school or more than one school per representative
- The representatives will review the school improvement plan and make recommendations based on comprehensive review of available research
- The representatives will possess expertise appropriate to particular school improvement strategies
- The representatives will assist in identifying and securing resources

**Role of Representatives under this plan**

- Assisting schools with implementation of school improvement plans
- Monitoring school improvement plans for schools that are not meeting and partially meeting expectations
- Identifying and securing resources

**Liaisons between WDE and School District Leadership**

WDE employees will be assigned as district liaisons and coordinate efforts from the WDE. The district superintendent will serve as the representative for the district.  The WDE liaisons will provide support working with the district superintendent. Each school will have a representative designated by the district.

**Employees of WDE and/or School District**

The WDE district liaison, district superintendent and school representatives will work together. The WDE liaisons will assist in plan development and monitoring, determination of interventions and enrichment activities, and resource reallocation.

**Multiple Representatives**

The WDE Liaison and district superintendent will work with the school representative to determine the particular expertise and training needed to implement the activities in the school improvement plan.

Schools that are meeting expectations have the option to request a school improvement representative. This will be arranged between the WDE liaison and the district superintendent. The necessary support will likely vary depending on the school.

**School Improvement Plan Review and Monitoring**

The role of the school improvement representatives in school improvement plan review and monitoring will be differentiated according to the requirements of the school improvement plan.

Monitoring and guidance of plan implementation will be accomplished by the WDE liaison in cooperation with the district superintendent. The plans will be reviewed and scored using a statewide peer review process that includes a statewide meeting annually to review school improvement plans. The plans will be scored as to whether the strategies make sense from an instructional standpoint to improve scores and whether they match the school improvement framework.

**School Improvement Representative Expertise**

The WDE currently has access to resources and research from other states through the Regional Education Laboratory REL Central from Denver, CO which consists of Marzano Research Laboratory, RMC Research Corporation (RMC) and Augenblick, Palaich, and Associates, Inc. In October, 2012 the WDE will know which organizations received the USDE contracts for comprehensive center support and content center support for Wyoming. These partners will provide much of the expertise free of charge to Wyoming.

The list of influences on student achievement will provide consistency in the research base used statewide, in that only strategies with a high impact on student achievement will be recommended. Schools and districts will have the autonomy to choose the programs, providers and initiatives they wish to employ to increase student achievement as long as they are reflective of the higher effect-size influences on achievement and make sense from an instructional standpoint.

**Securing and Reallocating Resources**

Hattie's influences on student achievement form the foundation for resource reallocation. School expenditures on professional development and other expenditures on influences with an effect size of less than .40 will be suggested for reallocation to influences with a greater effect size.

# Accreditation for Wyoming Districts

## Graphic Model for Accreditation

| AdvancED® Evaluation of District Capacity and Performance | → | Wyoming State Board of Education Accreditation | ← | WDE Evaluation of Programs and Assurances |

**Support by AdvancED and WDE**
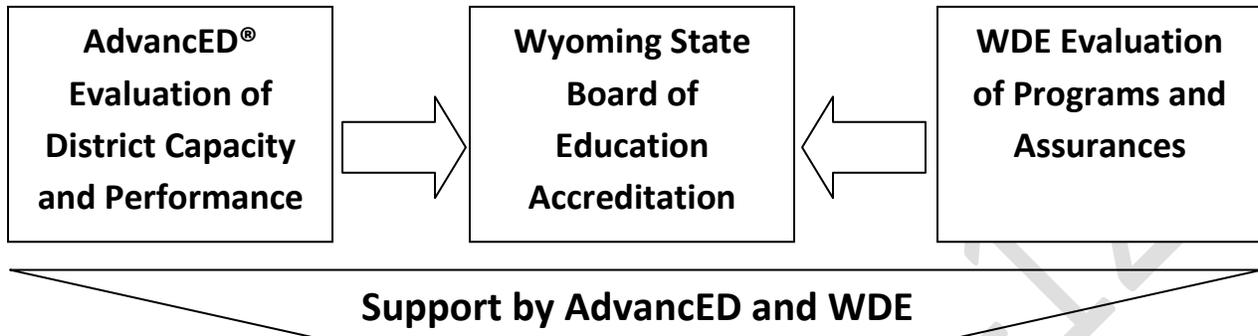
W.S. 21-2-304. Duties of the state board of education - says:

(a) The state board of education shall:

(ii) **Through the evaluation and accreditation of school districts, implement and enforce the uniform standards for educational programs** prescribed under W.S. 21-9-101 and 21-9-102 in the public schools of this state, **including any educational institution receiving any state funds** except for the University of Wyoming and Wyoming community colleges, **and implement and enforce the statewide education accountability system** pursuant to W.S. 21-2-204. The board shall **ensure** that **educational programs** offered by public schools in accordance with these standards **provide students an opportunity to acquire sufficient knowledge and skills**, at a minimum, to enter the University of Wyoming and Wyoming community colleges, to prepare students for the job market or postsecondary vocational and technical training and to achieve the general purposes of education that equips students for their role as a citizen and participant in the political system and to have the opportunity to compete both intellectually and economically in society. In addition, the board shall require school district adherence to the statewide education accountability system; [emphasis added]

The WDE interprets this as saying the accreditation system will evaluate:

- o Whether students in public schools and institutions have the opportunity to meet content and performance standards

- o Whether the district adheres to the statewide education accountability system

- o Whether students are provided an opportunity to acquire sufficient knowledge and skills for college, careers and citizenship

**Content and Performance Standards Evaluation**

An additional component of accreditation will be an evaluation of the school program offering to ensure that students have opportunity to meet the uniform standards for educational programs. This will be evaluated by WDE staff using existing data.

**Statewide Accountability System**

School performance level will be included in the determination of the overall district score through the use of student data in the AdvancED score assignment.

**Evaluation of student knowledge and skills**

Determination of whether public schools and institutions provide students an opportunity to acquire sufficient knowledge and skills for college, careers and citizenship is accomplished through the AdvancED accreditation process, standards evaluation and assurances. AdvancED analyzes Wyoming schools with a team of in-state and out-of-state educators on a five year cycle. In 2012, the process was revised to include five standards, rather than the seven listed below. These teams use a four point scale for each area with one being the lowest and four the highest. The Quality Assurance Review (QAR) results for the past five years are summarized as:

| | Vision and Purpose | Governance and Leadership | Teaching and Learning | Documenting and Using Results | Resources and Support Systems | Stakeholder Communications and Relationships | Continuous Improvement |
|---|---|---|---|---|---|---|---|
| **District** | 3.25 | 3.1 | 3.0 | 3.05 | 3.2 | 3.15 | 2.9 |
| **School** | 3.25 | 3.32 | 3.22 | 3.15 | 3.40 | 3.27 | 3.11 |

**Wyoming assurances**

Schools and districts provide assurance that all state statutes and requirements are met each year. WDE checks that assurances are completed and spot checks key assurances as part of the accreditation process. Schools and districts currently submit assurances each year to AdvancED through the ASSIST online tool. State Assurances and Title I Assurances (if appropriate) are included as part of the complete Improvement Report.

The assurance review includes an analysis of professional assignments for every district. All districts hosting the five year Quality Assurance Review (QAR) visits with AdvancED are monitored for assurance compliance using a checklist completed on site with the district. Corrective action is required for any assurance area not fully met. Accreditation will be impacted if a considerable number of assurances are not met, if student health and safety are at risk, or if staff is misassigned. Results of the assurances are included in a report to the State Board as part of the accreditation recommendations.

# CONSEQUENCES FOR CONSISTENT LOW PERFORMANCE

The major reasons schools struggle are an incoherent curriculum, lack of teacher expertise or lack of student engagement. The question is not how to punish, but what intervention will change the direction of the school?

In Drive: The Surprising Truth About What Motivates Us, Daniel Pink (Pink, 2009) writes about the research behind human motivation.  Pink says rewards and consequences are effective incentives only for piece work and rote tasks.  When the cognitive complexity of the task is increased, rewards and consequences lead to worse results.  He contends people are motivated by autonomy, mastery and purpose.  When people are allowed to be self-directed in their work, can become competent at what they do and believe they are part of something greater than themselves, they devote themselves to the endeavor.  Rewards and consequences lead to compliance, not commitment.

At the same time, in The Tyranny of Choice, Renata Salecl (Salecl, 2011)makes the case that paralyzing anxiety and dissatisfaction result from limitless choices.   She contends that consumerism leads to self-criticism and guilt rather than positive change.  Salecl says the result of individualism and consumerism is that celebrity, not citizenship becomes the goal for many people.

It appears that autonomy, mastery and purpose are positive, but too many choices are not.  Thus, at least in the case of low-performing schools, leaving all aspects of the education system to local control has not led and probably won't lead to the school performance envisioned by the Wyoming legislature.

Increasing the focus and structure of low-performing schools along with implementing research-based practices will lead to increased student achievement.  However, this will likely be seen as a consequence for schools that are used to an "anything goes" environment.

**Increased Literacy Expectations**

If students do not read well, it is unlikely they will do well on any portion of the achievement tests because they cannot comprehend the questions.  The first intervention for students who are not proficient in any area is a screening to determine their reading ability and appropriate reading instruction.   In low-performing schools that have made gains, curricular and instructional improvements in literacy along with improved relationships are almost always cited as factors that lead to improvement.

Katy Haycock, Director of the Education Trust, raised concern about the expectations of students in low performing schools some years ago when she said: "I'm astounded that kids in some middle schools are given more coloring assignments than writing and math work. Even in some high schools the kids are asked to do a lot of coloring. Read _To Kill a Mockingbird_, says the teacher, and when you're through, color a poster on it" (Haycock, 2001).

**Interventions for Schools**

According to page 11 of the statute, failure to meet improvement goals as specified in the plan for two (2) consecutive years may be grounds for dismissal of the school principal. Hattie's research, substantiated by Bill Gates at the 2012 Education of States (ECS) Conference, indicates that learning leaders are most effective in increasing achievement. An analysis to determine whether the principal is the "weak link in the chain" is necessary before dismissing the principal.

Gates contends that leaders don't exist outside of the system. Blaming specific teachers or administrators for systemic problems is not a solution to the problem. In The Anxious Organization, (Miller, 2008) Jeffrey Miller writes "blaming one person for systemic problem allows everyone to ignore the fact that the problem is systemic. They partake of the illusion that in assigning blame, they have identified the source of the problem and even gone halfway to solving it. Once the scapegoat has been found, all further thinking about the problem is suspended."

Undoubtedly there are steps that need to be taken if individual teachers or leaders are struggling and the situation cannot be improved. The teacher and administrator evaluation process developed through WAEA will likely be useful for this purpose.

**Resource Reallocation**

The resource reallocation model includes moving time and financial resources away from low effect size practices to make funds and time available for activities that increase student achievement.

In almost every case, the first priority for low performing schools is to limit distractions and modify teacher schedules to make time for literacy and numeracy instruction. Teachers should focus first on improving the classroom environment, improving instruction and implementing more purposeful reading and writing in all subjects. Some teachers will view this change as a severe consequence.

**Loss of Accreditation**

If a school continues to perform at a low enough level for long enough, there is a point at which it should lose accreditation and funding. This is a decision of the State Board of Education.

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# SCHOOL IMPROVEMENT AND COMMUNICATIONS PLAN

Include picture representing your school and delete these words.

| | |
|---|---|
| **School Name** | **Plan Year** |
| **School Number** | **District** |

## Signatures

| | | | |
|---|---|---|---|
| School Principal | Date | District Board Chairman | Date |
| District Superintendent | Date | WDE Representative | Date |

The specific plan requirements from the Wyoming Accountability in Education Act are:

| Exceeding Expectations | Meeting Expectations | Partially Meeting Expectations | Not Meeting Expectations |
|---|---|---|---|
| **Communications Plan** | **School Improvement Plan** | **School Improvement Plan** | **School Improvement Plan** |
| Report annually on effective practices<br><br>Effective practices will be shared with other schools. | Evaluates strengths and deficiencies of the specific content indicator scores.<br><br>Explains the measures and methods chosen for improvement and provides timelines and benchmarks. | Addresses content areas that are below target levels. | Addresses content areas that are below target levels. |
| | **WDE Representative** | **WDE Representative(s)** | **WDE Representative(s)** |
| | The state superintendent will appoint a representative from the WDE.<br><br>The representative will assist in identifying necessary resources, if requested. | The state superintendent will appoint a representative(s) from WDE.<br><br>The representative(s) will monitor progress, goals, measures and methods.<br><br>The representative(s) will assist in identifying and securing resources.<br><br>Failure to meet goals for two years may move school to "D" category. | The state superintendent will appoint a representative(s) from WDE.<br><br>The representative(s) will assist in drafting the improvement plan including selection of programs and interventions to improve student performance.<br><br>The representative(s) will monitor progress, goals, measures and methods.<br><br>The representative(s) will assist in identifying and securing resources.<br><br>The plan will describe the personnel and financial resources from the funding model and how funds shall be reallocated, if necessary.<br><br>The plan will be approved by the district board. |
| **Rules and Regulations on School Improvement Plans** The school improvement plans are intended to comply with multiple requirements and eliminate duplicative information, material and burden on schools. The plans are to be available for public inspection through internet access. | | | |

# PLAN COMPONENTS

| REQUIRED ANNUALLLY BASED ON SCHOOL PERFORMANCE LEVEL | | | |
|---|---|---|---|
| Exceeding Expectations | Meeting Expectations | Partially Meeting Expectations | Not Meeting Expectations |
| State and Federal Assurances | State and Federal Assurances | State and Federal Assurances | State and Federal Assurances |
| Professional Development Plan | Professional Development Plan | Professional Development Plan | Professional Development Plan |
| Communications Plan | Implementation Plan | Implementation Plan | Implementation Plan |
| | | School Improvement Framework | School Improvement Framework |
| | | Resource Allocation | Resource Allocation |

1. **IMPLEMENTATION PLAN**
    - Specific plan for improving scores in literacy, numeracy and science
- **STATE AND FEDERAL ASSURANCES**
    - State assurances are required for all schools
    - Federal assurances are required for Title 1 schools
- **WYOMING SCHOOL IMPROVEMENT FRAMEWORK**
    - Respond to Effective Practices and Provide Evidence
- **RESOURCE ALLOCATION**
    - Alignment of programs and initiatives to Visible Learning research
    - Allocation of resources to influences with a high effect size
- **PROFESSIONAL DEVELOPMENT PLAN**
    - Alignment of professional development to content indicators and the best practices in the school improvement framework
- **COMMUNICATIONS PLAN**
    - Communication of effective practices based on content indicators and the school improvement framework

# IMPLEMENTATION PLAN

**(The implementation plan is required for schools that are meeting, partially meeting and not meeting expectations. Schools may substitute the improvement plan from AdvancED® ASSIST for this component.)**

Evaluate the strengths and deficiencies of the school performance level content indicator scores (Math and Literacy scores). Include a separate plan for each content indicator. Explain the measures and methods for improvement and provide timelines and benchmarks. Use the following format:

| List the action steps to implement interventions. List the activities in Tiers of Intervention following a Response to Intervention (RTI) model. | Person Responsible | Timeline/Benchmarks | | Resources | Professional Development |
|---|---|---|---|---|---|
| | | Start | Complete | | |
| | | | | | |

# STATE AND FEDERAL ASSURANCES

**(State Assurances are required annually of all schools.  Federal Assurances are required annually of all Title 1 schools.)**

# STATE ASSURANCES

| Assurance | Certified | Comment/Attachment |
|---|---|---|
| If applicable, the school assures all students in eleventh grade take the ACT or Work Keys assessment. | Yes | |
| The school follows district policies and procedures for identifying and intervening with at-risk students and preventing at-risk behavior. | Yes | |
| The school provides annual training to all school personnel concerning, discrimination, confidentiality, and occupational exposure to blood-borne pathogens. | | |
| The school provides educational programs sufficient for all students to meet uniform content and performance in all areas of the common core of knowledge and skills. | Yes | |
| The performance of each continuing contract teacher is formally evaluated in writing at least once each year. | Yes | |
| Crisis management plans are in place to ensure that potential crisis situations are addressed and are practiced on a regular basis. | Yes | |
| The school implements the district assessment system, including Body of Evidence, to measure student performance relative to district content and performance standards.  They system is designed so that all Students have equality of educational opportunity to learn the content and skills represented in the standards and to the level established by the performance standards. | Yes | |
| The school has implemented the district technology plan. | Yes | |
| Fire inspections are conducted at least once every three (3) years, and results are available. | Yes | |
| The school conducts fire/safety drills at lest once every month that school is in session according to state statutes. | Yes | |
| If applicable, the school is providing foreign language instruction in grades K-2 | Yes | |

| | | |
|---|---|---|
| The school is providing for the needs of all gifted and talented students through enrichments in regular instruction, enrichment programs, advanced or challenging courses, extension periods, etc. | Yes | |
| All students have access to guidance services that provide assistance in developing and monitoring their educational and career plans through a structured, systematic individual planning process. | Yes | |
| If applicable, all Hathaway Scholarship Program course requirements, including the Eighth Grade Unit of Study and Hathaway Success Curriculum, have been met and implemented. | Yes | |
| A health inspection of the building and the food service facilities is conducted annually, and the building principal has sought remedies to noted problems in accordance with state statutes. | Yes | |
| The performance of each initial contract teacher is formally evaluated in writing at least twice annually. | Yes | |
| The school is providing for the needs of all disabled students and is in compliance with statutory requirements. | Yes | |
| The following days are appropriately observed:<br>● Wyoming Day, December 10 of each year.<br>● Nellie T. Ross' birthday, November 29 of each year.<br>● Native American Day, the second Friday in May.<br>● Pearl Harbor Remembrance Day, December 7 of each year.<br>● Constitution Day, September 17 of each year. | Yes | |
| The school has procedures for involving parents and community in decision-making, implementation of standards, goal setting and planning for school improvement, and identification of budget priorities based on student performance standards. | Yes | |
| The school has developed and has on file the policy for required notification of pesticide application on or around the school building. | Yes | |
| The school implements programs that include planned strategies for intervening with students who fail to demonstrate proficiency on the standards.  These include extended day and extended year programs and certified tutors. | Yes | |

| | | |
|---|---|---|
| The school has developed and implemented a professional development plan that focuses on the development and implementation of standards and standards-based assessments, the instructional and student learning uses of technology, individual school improvement goals, assessed needs based on documented student results, and individual professional development goals. | Yes | |
| Protective eye devices have been purchased and are used, free of charge, by all students and teachers involved in activities or using materials that create a substantial rish of harm to the eyes. | Yes | |
| The school employs qualified instructional facilitators to provide professional development, teacher mentoring and educational leadership based on identified needs and school improvement planning. | Yes | |
| The school compiles with the State Board of Education's definition of the minimum hours of student/teacher contact and minimum days per year. The school calendar includes a minimum of 185 teacher work days.<br>● 1/2 Day Kindergarten - 450 hours<br>● Full Day Kindergarten - 900 hours<br>● Elementary - 900 hours<br>● Middle/Jr. High - 1,050 hours<br>● High School - 1,100 hours | Yes | The school operates on a regular calendar, which includes _____176_____ student/teacher contact days, _____6_____ days devoted to professional development, and _____2_____ days for parent/teacher conferences. |
| On Presidents' Day, Veterans Day, Martin Luther King Jr. Day, Wyoming Equality Day, and general election day, the school is not dismissed except by order of the board of trustees of the district. Exercises to emphasize the significance of these days are optional to the school. | Yes | |
| The school ensures that students are educated in a safe environment that meets all building, health, safety, and environmental codes and standards required by law for all public buildings. | Yes | |
| The school requires written documentary proof of immunization or written immunization waiver to be provided for all students attending within thirty (30) days after the date of school entry. The school maintains documentation on file and conducts an audit of immunization status for each child enrolled in accordance with rules and regulations prescribed by the Department of Health. | Yes | |
| The school monitors its school improvement process and supports the implementation of the school Improvement plan. | Yes | |

| | | |
|---|---|---|
| The school participates in the State Accountability System and complies with applicable Federal laws. | Yes | |
| Instruction is provided in the essentials of the state and federal constitutions. | Yes | |
| The school has adopted and implemented strategies to monitor the teaching of standards. | Yes | |
| The school ensures that all third through eighth and/or eleventh grade students participate in the Wyoming state assessment of student performance in reading, writing, mathematics and, science (known as PAWS). | Yes | |
| Media services sufficient to support the achievement of student content and performance standards are available and accessible to all students and staff. | Yes | |
| The assignment of staff members is in accordance with the certificates and endorsements as specified in the Professional Teaching Standards Board regulations. | Yes | |
| The school uses a State Board of Education/WDE approved teacher performance evaluation system. | Yes | |
| Every three years the school assesses all grade levels, parents, and staff regarding school mission and student learning, school safety, service provision, equity, and opportunity to learn.  The results are used for school improvement planning. | Yes | |
| The flags of the United States of America and the State of Wyoming are displayed when school is in session in, upon, or around the school building. | Yes | |

# FEDERAL TITLE 1 ASSURANCES

| Assurance | Certified | Comment/Attachment |
|---|---|---|
| The school has planned an annual evaluation that addresses the implementation of the comprehensive plan and student achievement results that will inform changes when needed. | Yes | |
| The school will allocate and spend Title I, Part A School wide funds only on allowable programs and activities and will maintain appropriate results that will inform changes when needed. | Yes | |
| The school has conducted a comprehensive needs assessment, which included a review of academic achievement data for all students and assessed the needs of the school relative to each of the School wide program components. | Yes | |
| The school has planned School wide activities to be coordinated with and integrated with other federal, state, and local services, programs and resources. | Yes | |
| The school has planned instruction by paraprofessionals who meet the requirements of NCLB and teachers who are Highly Qualified under NCLB. | Yes | |
| The school has planned strategies to attract highly qualified teachers to this high needs school. | Yes | |
| The school has incorporated School wide planning into the existing school improvement planning process. | Yes | |
| The school has planned or developed strategies with input from teachers to monitor and evaluate the success of School wide activities and will use the results of the evaluation to inform and improve instructional strategies as well as professional development activities. | Yes | |
| The school has planned or developed strategies to increase parental involvement in the design, implementation, evaluation and communication of assessment results of the School wide activities, including the development and use of a Parent Compact. | Yes | |
| The school has planned preschool transition strategies and the implementation process. (Does not apply to MS and HS programs.) | Yes | |
| The school has planned or provided appropriate professional development activities for staff who will be serving students. | Yes | |

| | | |
|---|---|---|
| The school has planned and developed School wide research-based instructional reform strategies to strengthen the core academic program, increase amount and quality of learning time, and provide additional supports to all students. | Yes | |
| The school has planned and developed School wide research-based instructional strategies that provide timely additional instruction for those who are experiencing the greatest degree of difficulty mastering the state's academic achievement standards. | Yes | |

# WYOMING SCHOOL IMPROVEMENT FRAMEWORK

## (Required of schools that are partially meeting and not meeting expectations)

Please explain how the school addresses the effective practice in levels 1-5, based on input from all teachers.   Provide evidence, if available, to show that the school meets each effective practice.

## Level 1 - A Safe and Orderly Environment That Supports Cooperation and Collaboration

| Effective Practice | Explain how the school addresses this practice. |
|---|---|
| **1.1**<br>The faculty and staff perceive the school environment as safe and orderly. | |
| **1.2**<br>Students, parents, and the community perceive the school environment as safe and orderly. | |
| **1.3**<br>Teachers have formal roles in the decision-making process regarding school initiatives. | |
| **1.4**<br>Teacher teams and collaborative groups regularly interact to address common issues regarding curriculum, assessment, instruction, and the achievement of all students. | |
| **1.5**<br>Teachers and staff have formal ways to provide input regarding the optimal functioning of the school. | |
| **1.6**<br>Students, parents, and community have formal ways to provide input regarding the optimal functioning of the school. | |

| | |
|---|---|
| **1.7**<br>The success of the whole school, as well as individuals within the school, is appropriately acknowledged | |
| **1.8**<br>The fiscal, operational, and technological resources of the school are managed in a way that directly supports teachers. | |

## Level 2 - An Instructional Framework That Develops and Maintains Effective Instruction in Every Classroom

| Effective Practice | Explain how the school addresses this practice. |
|---|---|
| **2.1**<br><br>The school communicates a clear vision as to how instruction should be addressed in the school. | |
| **2.2**<br><br>Support is provided to teachers to continually enhance their pedagogical skills through reflection and professional growth plans. | |
| **2.3**<br><br>Predominant instructional practices throughout the school are known and monitored. | |
| **2.4**<br><br>Teachers are provided with clear, ongoing evaluations of their pedagogical strengths and weaknesses that are based on multiple sources of data and are consistent with student achievement data. | |
| **2.5**<br><br>Teachers are provided with job-embedded professional development that is directly related to their instructional growth goals. | |
| **2.6**<br><br>Teachers have opportunities to observe and discuss effective teaching. | |

## Level 3 – An Essential Curriculum Focused on Enhancing Student Learning

| Effective Practice | Explain how the school addresses this practice. |
|---|---|
| **3.1** <br><br> The school curriculum and accompanying assessments adhere to state and district standards. | |
| **3.2** <br><br> The school curriculum is focused enough that it can be adequately addressed in the time available to teachers. | |
| **3.3** <br><br> All students have the opportunity to learn the critical content of the curriculum. | |
| **3.4** <br><br> Clear and measurable goals are established and focused on critical needs regarding improving overall student achievement at the school level. | |
| **3.5** <br><br> Data are analyzed, interpreted, and used to regularly monitor progress toward school achievement goals. | |
| **3.6** <br><br> Appropriate school-level and classroom-level programs and practices are in place to help students meet individual achievement goals when data indicate interventions are needed. | |

## Level 4 - A Standards-Referenced System of Reporting Student Progress

| Effective Practice | Explain how the school addresses this practice. |
|---|---|
| **4.1**<br><br>Clear and measurable goals are established and focused on critical needs regarding improving achievement of individual students within the school. | |
| **4.2**<br><br>Data are analyzed, interpreted, and used to regularly monitor progress toward achievement goals for individual students. | |

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## Level 5 - A Competency-Based System That Ensures Student Mastery of Content

| Effective Practice | Explain how the school addresses this practice. |
|---|---|
| **5.1**<br><br>Students move on to the next level of the curriculum for any subject area only after they have demonstrated competence at the previous level. | |
| **5.2**<br><br>The school schedule is designed to accommodate students moving at a pace appropriate to their backgrounds and needs. | |
| **5.3**<br><br>Students who have demonstrated competency levels greater than those articulated in the system are afforded immediate opportunities to begin work on advanced content and/or career paths of interest. | |

# RESOURCE REALLOCATION

## (Required of schools that are partially meeting and not meeting expectations)

List all of the initiatives, programs and strategies that are currently in place in the school. This may require additional pages.  These will be aligned to the research by number. Initiative 1 corresponds with column 1 on the next page.

| Initiatives, Programs and Strategies | |
|---|---|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |
| 6. | |
| 7. | |
| 8. | |
| 9. | |
| 10. | |

Align the programs and strategies to the research using the corresponding number.  For example, for strategy number 1, place an X in each box in column number 1 where the particular strategy aligns to the research.

| | Influence on Achievement | ES | Intervention or  Enrichment Number | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
| **CURRICULA** | **READING PROGRAMS  -** Implementing curricular improvements in reading | | | | | | | | | | | |
| | Repeated reading | 0.67 | | | | | | | | | | |
| | Vocabulary instruction | 0.67 | | | | | | | | | | |
| | Comprehension instruction | 0.60 | | | | | | | | | | |
| | Visual-perception | 0.55 | | | | | | | | | | |
| | Phonics instruction | 0.54 | | | | | | | | | | |
| | Second/third chance | 0.50 | | | | | | | | | | |
| | Writing instruction | 0.44 | | | | | | | | | | |
| | Exposure to reading | 0.42 | | | | | | | | | | |
| | Drama/arts | 0.35 | | | | | | | | | | |
| | Sentence combining instruction | 0.15 | | | | | | | | | | |
| | Whole language | 0.06 | | | | | | | | | | |
| | **MATH AND/OR SCIENCE PROGRAMS -** Implementing curricular improvements in Mathematics and/or Science | | | | | | | | | | | |
| | Science Instruction | 0.42 | | | | | | | | | | |
| | Mathematics Instruction | 0.40 | | | | | | | | | | |
| | Use of Calculators | 0.27 | | | | | | | | | | |
| | **OTHER CURRICULA -** Implementing other curricular improvements and initiatives | | | | | | | | | | | |
| | Creativity programs on achievement | 0.65 | | | | | | | | | | |
| | Tactile stimulation instruction | 0.58 | | | | | | | | | | |
| | Outdoor/adventure instruction | 0.52 | | | | | | | | | | |
| | Play instruction | 0.50 | | | | | | | | | | |
| | Integrated curricula instruction | 0.39 | | | | | | | | | | |
| | Social skills instruction | 0.39 | | | | | | | | | | |
| | Career interventions | 0.38 | | | | | | | | | | |
| | Bilingual instruction | 0.37 | | | | | | | | | | |
| | Values/moral education instruction | 0.24 | | | | | | | | | | |
| | Extra-curricular activities | 0.19 | | | | | | | | | | |
| | Perceptual-motor instruction | 0.08 | | | | | | | | | | |

*The influences on achievement are from <u>Visible Learning</u>, by John Hattie.  The premise of this research synthesis is that almost anything can be called a research-based practice to increase achievement when compared to no increase.  However, some influences are far more effective than others.  Hattie determined the "hinge point" to be an effect size of .40 or greater.  Please refer to the book as the resource for analyzing the research.

Hattie, John. *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement.* New York: Routledge, 2009. Print.

| | Influence on Achievement | ES | Intervention or Enrichment Number | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
| **TEACHER** | **TEACHER -** Improving teacher professional knowledge and behavior as it relates to student achievement | | | | | | | | | | | |
| | Teacher credibility | 0.90 | | | | | | | | | | |
| | Microteaching | 0.88 | | | | | | | | | | |
| | Teacher clarity | 0.75 | | | | | | | | | | |
| | Teacher-student relationships | 0.72 | | | | | | | | | | |
| | Not labeling students | 0.61 | | | | | | | | | | |
| | Professional development | 0.51 | | | | | | | | | | |
| | Quality of teaching | 0.48 | | | | | | | | | | |
| | Teacher expectations | 0.43 | | | | | | | | | | |
| | Teacher effects | 0.32 | | | | | | | | | | |
| | Teacher verbal ability | 0.22 | | | | | | | | | | |
| | Teacher education[1] | 0.12 | | | | | | | | | | |
| | Teacher subject matter knowledge | 0.09 | | | | | | | | | | |

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[1] The research on teacher education programs and teacher subject matter knowledge indicates that teachers often cover the content at such a surface level that their level of preparation and subject matter knowledge has limited impact. This should be viewed as an opportunity for improvement and not as unnecessary.

| | | Intervention or Enrichment Number | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Influence on Achievement** | **ES** | **1.** | **2.** | **3.** | **4.** | **5.** | **6.** | **7.** | **8.** | **9.** | **10.** |
| **SCHOOL-WIDE STRATEGIES -** Improving school-wide teaching strategies and interventions | | | | | | | | | | | |
| Response to Intervention | 1.07 | | | | | | | | | | |
| Classroom discussion | 0.82 | | | | | | | | | | |
| Comprehensive interventions for learning disabled students | 0.77 | | | | | | | | | | |
| Student centered teaching | 0.54 | | | | | | | | | | |
| Comprehensive teaching reforms | 0.22 | | | | | | | | | | |
| Co-teaching/team teaching | 0.19 | | | | | | | | | | |
| **TEACHING STRATEGIES -** Improving the teaching approach and skills of individual teachers | | | | | | | | | | | |
| Reciprocal teaching | 0.74 | | | | | | | | | | |
| Teaching strategies | 0.62 | | | | | | | | | | |
| Problem-solving teaching | 0.61 | | | | | | | | | | |
| Cooperative vs. individualistic learning | 0.59 | | | | | | | | | | |
| Direct Instruction | 0.59 | | | | | | | | | | |
| Cooperative vs. competitive learning | 0.54 | | | | | | | | | | |
| Cooperative learning | 0.42 | | | | | | | | | | |
| Adjunct aids | 0.37 | | | | | | | | | | |
| Various teaching on creativity | 0.34 | | | | | | | | | | |
| Inductive teaching | 0.33 | | | | | | | | | | |
| Inquiry-based teaching | 0.31 | | | | | | | | | | |
| Competitive vs. individualistic learning | 0.24 | | | | | | | | | | |
| Problem-based learning | 0.15 | | | | | | | | | | |
| **FEEDBACK -** Providing and improving specific feedback between teachers and students | | | | | | | | | | | |
| Providing formative evaluation | 0.90 | | | | | | | | | | |
| Feedback | 0.75 | | | | | | | | | | |
| Questioning | 0.48 | | | | | | | | | | |
| Frequency/effects of testing | 0.34 | | | | | | | | | | |
| Teaching test taking and coaching | 0.27 | | | | | | | | | | |
| Teacher immediacy | 0.16 | | | | | | | | | | |

**TEACHING APPROACH**

| Influence on Achievement | ES | Intervention or Enrichment Number | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
| **SUCCESS CRITERIA -** Helping students understand the criteria for success for individual assignments | | | | | | | | | | | |
| Mastery learning | 0.58 | | | | | | | | | | |
| Worked examples | 0.57 | | | | | | | | | | |
| Master Learning | 0.53 | | | | | | | | | | |
| **LEARNING INTENTIONS -** Developing clear learning objectives and helping students to understand their own goals in relation to the objectives | | | | | | | | | | | |
| Concept mapping | 0.60 | | | | | | | | | | |
| Goals (difficult vs. do your best) | 0.50 | | | | | | | | | | |
| Behavioral organizers/adjunct questions | 0.41 | | | | | | | | | | |
| Learning hierarchies | 0.19 | | | | | | | | | | |
| **META-COGNITIVE SELF-REGULATED LEARNING -** Teaching students in a manner that develops higher order thinking skills and teaches them to regulate their own learning | | | | | | | | | | | |
| Meta-cognitive strategies (Higher Order Thinking or Critical Thinking) | 0.69 | | | | | | | | | | |
| Self-verbalization/self-questioning | 0.64 | | | | | | | | | | |
| Study skills | 0.63 | | | | | | | | | | |
| Individualized instruction | 0.22 | | | | | | | | | | |
| Aptitude-treatment interactions | 0.19 | | | | | | | | | | |
| Matching style of learning | 0.17 | | | | | | | | | | |
| Student control over learning | 0.04 | | | | | | | | | | |
| **USING TECHNOLOGIES -** Using technology in a manner that increases student achievement | | | | | | | | | | | |
| Interactive video methods | 0.52 | | | | | | | | | | |
| Computer-assisted instruction | 0.37 | | | | | | | | | | |
| Simulations | 0.33 | | | | | | | | | | |
| Programmed instruction | 0.23 | | | | | | | | | | |
| Visual/audio-visual methods | 0.22 | | | | | | | | | | |
| Web-based learning | 0.18 | | | | | | | | | | |
| **STUDENT PERSPECTIVES IN LEARNING -** Changing student's perspectives on their own learning | | | | | | | | | | | |
| Spaced vs. mass practice | 0.71 | | | | | | | | | | |
| Peer tutoring | 0.55 | | | | | | | | | | |
| Time on task | 0.38 | | | | | | | | | | |
| Mentoring | 0.15 | | | | | | | | | | |
| **OUT OF SCHOOL LEARNING -** Modifying processes and policies as they relate to out of school learning | | | | | | | | | | | |
| Homework | 0.29 | | | | | | | | | | |
| Home-schooling | 0.16 | | | | | | | | | | |
| Distance Education[2] | 0.11 | | | | | | | | | | |

The left margin of the table reads vertically: **TEACHING APPROACH**

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[2] Distance education by itself has little impact on achievement. The results depend on the quality of instruction delivered via Distance Education

| Influence on Achievement | ES | Intervention or Enrichment Number | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
| **ATTRIBUTES OF SCHOOL** - Modifying processes as they relate to, finances, calendars, timetables, etc. | | | | | | | | | | | |
| School effects | 0.48 | | | | | | | | | | |
| Finances | 0.23 | | | | | | | | | | |
| Changing school calendars/timetables | 0.09 | | | | | | | | | | |
| **CLASSROOM COMPOSITION EFFECTS** - Modifying classroom composition including small group learning, volunteer tutors, mainstreaming, class size, etc. | | | | | | | | | | | |
| Small group learning | 0.49 | | | | | | | | | | |
| Volunteer tutors | 0.26 | | | | | | | | | | |
| Mainstreaming | 0.24 | | | | | | | | | | |
| Class size | 0.21 | | | | | | | | | | |
| Within-class grouping | 0.18 | | | | | | | | | | |
| Ability grouping | 0.12 | | | | | | | | | | |
| Multi-grade/multi age classes | 0.04 | | | | | | | | | | |
| Open vs. traditional | 0.01 | | | | | | | | | | |
| Retention | -0.13 | | | | | | | | | | |
| **CLASSROOM INFLUENCES** - Improving classroom behavior, cohesion, management and peer influences | | | | | | | | | | | |
| Classroom behavioral | 0.68 | | | | | | | | | | |
| Classroom cohesion | 0.53 | | | | | | | | | | |
| Peer influences | 0.53 | | | | | | | | | | |
| Classroom management | 0.52 | | | | | | | | | | |
| Decreasing disruptive behavior | 0.34 | | | | | | | | | | |
| **CURRICULA FOR GIFTED STUDENTS** - Improving processes for acceleration and enrichment for gifted students | | | | | | | | | | | |
| Acceleration | 0.68 | | | | | | | | | | |
| Enrichment | 0.39 | | | | | | | | | | |
| Ability grouping for gifted | 0.30 | | | | | | | | | | |
| **SCHOOL COMPOSITION EFFECTS** - Maintaining effective principals/school leaders, systems accountability, etc. | | | | | | | | | | | |
| School size | 0.43 | | | | | | | | | | |
| Principals/school leaders | 0.39 | | | | | | | | | | |
| Systems accountability | 0.31 | | | | | | | | | | |
| Out of school curricular experiences | 0.09 | | | | | | | | | | |
| Summer Vacation | -0.02 | | | | | | | | | | |
| Mobility | -0.34 | | | | | | | | | | |
| **TYPES OF SCHOOLS** - Implementing desegregation, religious schools, charter schools, etc. | | | | | | | | | | | |
| Desegregation | 0.28 | | | | | | | | | | |
| Religious Schools | 0.23 | | | | | | | | | | |
| Summer school | 0.23 | | | | | | | | | | |
| Charter Schools | 0.20 | | | | | | | | | | |

SCHOOL

| Influence on Achievement | ES | Intervention or Enrichment Number | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
| **PRE-SCHOOL EXPERIENCES -** Improving early intervention and pre-school programs | | | | | | | | | | | |
| Early Intervention | 0.47 | | | | | | | | | | |
| Pre-school | 0.45 | | | | | | | | | | |
| **PHYSICAL INFLUENCES -** Addressing student's physical influences that impact achievement such as psychotherapy, drugs, ethnicity, exercise, lack of illness, school counseling, etc. | | | | | | | | | | | |
| Pre-term birth weight | 0.53 | | | | | | | | | | |
| Psychotherapy programs | 0.38 | | | | | | | | | | |
| Drugs | 0.32 | | | | | | | | | | |
| Ethnicity | 0.32 | | | | | | | | | | |
| Exercise/relaxation | 0.28 | | | | | | | | | | |
| Lack of Illness | 0.25 | | | | | | | | | | |
| School Counseling effects | 0.18 | | | | | | | | | | |
| Diet | 0.12 | | | | | | | | | | |
| Gender | 0.12 | | | | | | | | | | |
| Ethnic diversity of students | 0.05 | | | | | | | | | | |
| **BACKGROUND -** Improving early intervention and pre-school programs | | | | | | | | | | | |
| Self-report grades/Student expectations | 1.44 | | | | | | | | | | |
| Piagetian stages of development | 1.28 | | | | | | | | | | |
| Prior achievement | 0.65 | | | | | | | | | | |
| Creativity related to achievement | 0.35 | | | | | | | | | | |
| **ATTITUDES AND DISPOSITION -** Addressing student concentration/persistence/engagement, motivation and self-concept | | | | | | | | | | | |
| Concentration/persistence/ engagement | 0.48 | | | | | | | | | | |
| Motivation | 0.48 | | | | | | | | | | |
| Self-Concept | 0.47 | | | | | | | | | | |
| Reducing Anxiety | 0.40 | | | | | | | | | | |
| Attitudes to math and science | 0.35 | | | | | | | | | | |
| Personality | 0.18 | | | | | | | | | | |

STUDENT

| Influence on Achievement | ES | Intervention or Enrichment Number | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
| **HOME -** Addressing issues related to home environment, socioeconomic status, parental involvement, etc. | | | | | | | | | | | |
| Home Environment | 0.52 | | | | | | | | | | |
| Socioeconomic Status | 0.52 | | | | | | | | | | |
| Parental Involvement | 0.49 | | | | | | | | | | |
| Home Visiting | 0.29 | | | | | | | | | | |
| Family Structure | 0.18 | | | | | | | | | | |
| Welfare Policies | -0.12 | | | | | | | | | | |
| Television | -0.18 | | | | | | | | | | |

HOME

The plan for resource reallocation will be to move resources away from current strategies, initiatives and programs with an effect size of less than 0.40 to those with an effect size of greater than 0.40. 0.40 is the average effect size.

If schools want to have above average achievement, they must have above average practices. At the same time, there is no reason to discontinue all practices with a lower effect size, particularly those that are relatively inexpensive. Lower effect size practices that are expensive and don't result in student achievement are considerations for resource reallocation.

**In the space below, please indicate the programs, strategies and initiatives your school will stop doing to make time and financial resources available for the improvement strategies in this school improvement plan.**

# PROFESSIONAL DEVELOPMENT PLAN

## (Required of all schools)

**Describe the school plan for professional development that aligns to improvement in content indicator scores and addresses the best practices in the school improvement framework.**

# COMMUNICATIONS PLAN

## (Required of schools that are exceeding expectations)

**Describe at least one school effective practice that aligns to improvement in content indicator scores and/or addresses the effective practices in the school improvement framework.  This effective practice summary will be shared with other schools.  The written document may be supplemented with video or other media.**

**Cindy Hill, Superintendent of Public Instruction**

## Wyoming Department of Education

**2300 Capitol Avenue, 2nd Floor Hathaway Building**
**Cheyenne, WY 82002-0050 (307) 777-7675**